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Curtiss-Wright Flow Control Corporation, Target Rock Division

Remedial Investigation Report

Target Rock Site
1966E Broadhollow Road
East Farmingdale, New York
NYSDEC Site Number 1-52-119

October 28, 2009

ARCADIS

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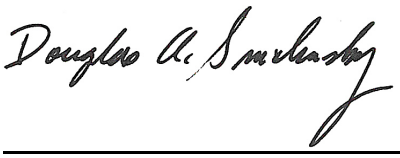

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East Farmingdale, New York
NYSDEC Site # 1-52-119

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Acronyms and Abbreviations

AARCO	AARCO Environmental Services Corp.
AOC	area of concern
ASP	Analytical Services Protocol
AST	aboveground storage tank
atm-m^3/mol	atmospheres per meter cubed per mole
ATSDR	Agency for Toxic Substances and Disease Registry
C	Celsius
CA RICH	CA RICH Consultants, Inc.
CAH	chlorinated aliphatic hydrocarbon
CAMP	Community Air Monitoring Plan
CCl_4	carbon tetrachloride
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
COC	constituent of concern
COD	chemical oxygen demand
CSM	conceptual site model
DCA	dichloroethane
DCE	dichloroethene

DQO	data quality objective
DOT	Department of Transportation
DUSR	Data Usability Summary Report
eCVP	electronic Comprehensive Validation Package
EP	extraction procedure
EPA	U.S. Environmental Protection Agency
ERM	ERM-Northeast
FSP	Field Sampling Plan
ft bls	feet below land surface
ft/d	feet per day
GPR	ground penetrating radar
HASP	Health and Safety Plan
Hg	mercury
HHEA	Human Health Exposure Assessment
HRS	Hazard Ranking Score
HSWDS	Hazardous Substance Waste Disposal Site Inventory
HVAC	heating, ventilation, and air conditioning
IAQ	indoor air quality
IDW	investigation-derived waste
K	hydraulic conductivity

K_{oc}	organic carbon partition coefficient
K_{ow}	octanol-water partition coefficient
LMS	Lawler, Matusky and Skelly Engineers
mg/kg	milligrams per kilogram
msl	mean sea level
NAPL	non-aqueous phase liquid
NCP	National Contingency Plan
NFRAP	No further remedial action planned
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
Order	Order On Consent
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PID	photoionization detector
PPE	personal protective equipment
ppm	parts per million
PUL	precision utility location
PWGC	P.W. Grosser Consulting, Inc.
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan

redox	oxidation-reduction
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
Roux	Roux Associates, Inc.
SCDHS	Suffolk County Department of Health Services
SCDPW	Suffolk County Department of Public Works
SCGs	standards, criteria, and guidance
SCO	Soil Cleanup Objective
SDG	sample delivery group
STARS	Spills Technology and Remediation Series
SVOC	semi-volatile organic compound
TAL	target analyte list
Target Rock	Curtiss-Wright Flow Control Corporation, Target Rock Division
TCA	trichloroethane
TCE	trichloroethene
TCL	target compound list
TDS/TSS	total dissolved solids/total suspended solids
TIC	tentatively identified compound
TOGS	Technical and Operational Guidance Series
TPH	total petroleum hydrocarbons

µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
UST	underground storage tank
VC	vinyl chloride
VOC	volatile organic compound
VPB	vertical profile boring

E-1 Executive Summary

This Remedial Investigation (RI) Report (RI Report) has been prepared by ARCADIS on behalf of Curtiss-Wright Flow Control Corporation, Target Rock Division (Target Rock), and is being submitted pursuant to Section II of the Order On Consent (Order) Index # W1-1031-04-10 that was executed by the New York State Department of Environmental Conservation (NYSDEC) and Target Rock, effective August 10, 2008. The Order required that a Remedial Investigation/Feasibility Study (RI/FS) be conducted for the Target Rock Site (referred to in this RI Report as the Site). The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 1-52-119 with a Classification 2.

E-1.1 Purpose of the Remedial Investigation

The following are the objectives of the RI:

- Determine if on-site remediated areas (i.e., former underground storage tank [UST] area) are a potential continuing source(s) of impacts to groundwater.
- Characterize the shallow (i.e., approximately 7 feet below land surface [ft bls]) soil vapor quality on-site.
- Characterize the sub-slab soil vapor quality on-site (i.e., beneath the west building and the southwest and southeast portions of the east building).
- Characterize the shallow groundwater quality on-site.
- Characterize the indoor air quality (IAQ) on-site (i.e., in the west building and the southwest and southeast portions of the east building).
- Fully develop the list of constituents of concern (COCs) for the Site.
- Characterize the nature and extent of risks posed by affected on-site media.
- Determine potential receptors and exposure pathways associated with potential exposure to soil, soil vapor, and groundwater.
- Determine if additional data collection efforts are warranted to meet RI goals based on the data collected on-site.

E-1.2 Remedial Investigation Scope of Work

The following work was conducted under the supervision of the NYSDEC and pursuant to the NYSDEC-approved RI/FS Work Plan:

- Conducted a surface geophysical survey.
- Drilled and sampled soil borings.
- Drilled and sampled exterior and sub-slab soil vapor points.
- Drilled and sampled groundwater from vertical profile borings.
- Measured water levels in monitoring wells.
- Collected groundwater samples from monitoring wells.
- Collected ambient air and indoor air quality samples.

E-1.3 Findings, Conclusions, and Recommendations

Geology/Hydrogeology

- The Site subsurface unsaturated zone deposits consist of localized areas of fill material between 5 and 10 ft in thickness underlain primarily by glacial sand deposits.
- The localized areas of fill material were encountered during the Phase II Investigation in the area near the former dry well (monitoring well TRMW-4 boring) and in the vicinity of monitoring well TRMW-2, and during the RI in the vicinity of the former UST area (i.e., in the AGW-9 soil boring).
- The Site unsaturated zone glacial (non-fill) lithology consists of sands of varying grain size with pebbles.
- The Site subsurface saturated zone deposits consist of sand and gravel (Upper Glacial aquifer), which is underlain by laminated sands and silts and the Magothy aquifer.

- There are no groundwater supply wells located at the Site.

- Beneath the Site, groundwater exists under water-table conditions and historically varies from approximately 10 to 15 ft bls. The shallow Site groundwater flow direction is generally to the south (consistent with regional flow).

- The average shallow horizontal groundwater velocity is approximately 0.23 feet per day (ft/d).

Nature and Extent of Constituents in Media

Soil

- All detected constituents (tetrachloroethene [PCE] and toluene) in soil were below standards, criteria, and guidance (SCGs).

- The soil data collected during the RI, in conjunction with previous investigation data and remediation-related data (i.e., endpoint soil samples collected in 2004), indicate that there are no continuing sources of impacts to groundwater and that additional soil investigation activities are not warranted.

Soil Vapor

- PCE, 1,1,1,-trichloroethane (1,1,1-TCA), and 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) were detected in soil vapor and were selected as the compounds to best approximate the overall distribution of volatile organic compounds (VOCs) in soil vapor. The highest concentrations of PCE, 1,1,1-TCA, and Freon 113 were 590 micrograms per cubic meter ($\mu g/m^3$), 260 $\mu g/m^3$, and 310 $\mu g/m^3$, respectively.

- The highest PCE concentrations in soil vapor were detected in soil vapor points SV-5 (590 $\mu g/m^3$) and SV-6 (340 $\mu g/m^3$), which were located in the vicinity of the former UST area.

- The highest 1,1,1-TCA concentrations in soil vapor were detected in soil vapor points SV-1 (260 $\mu g/m^3$) and SV-7 (110 $\mu g/m^3$), which were located in the vicinity of the former dry well area (where wastewater containing less than 5 percent 1,1,1-TCA was discharged in 1982 and 1983).

- The highest Freon 113 concentration in soil vapor was detected in soil vapor point SV-9 (310 µg/m^3), which was located adjacent to AGW-11, where Freon 113 was detected in a groundwater sample above its respective SCG.

- VOCs in soil vapor are likely transferring to the atmosphere through advective flow and pressure gradients, decreasing near surface soil vapor concentrations, along the southern and western perimeters/property boundaries where unpaved areas are present.

Sub-Slab Soil Vapor

- PCE, 1,1,1-TCA, and trichloroethene (TCE) were detected in sub-slab soil vapor above SCGs beneath the west building. PCE and 1,1,1-TCA were detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 1,000 µg/m^3. TCE was detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 250 µg/m^3.

- The highest PCE concentrations in sub-slab soil vapor were detected in SS-1 (51,000 µg/m^3) through SS-4 (8,800 µg/m^3), which were located near and to the south of the former UST area. PCE concentrations in sub-slab soil vapor were significantly lower (i.e., <1,000 µg/m^3) in SS-5 and SS-6 (southern portion of west building).

- Consistent with the highest PCE concentrations, the highest 1,1,1-TCA concentrations in sub-slab soil vapor were detected in SS-1 (50,000 µg/m^3) through SS-4 (3,400 µg/m^3). 1,1,1-TCA concentrations in sub-slab soil vapor were significantly lower (i.e., <50 µg/m^3) in SS-5 and SS-6.

- Consistent with the highest PCE and 1,1,1-TCA concentrations, the highest TCE concentrations in sub-slab soil vapor were detected in SS-1 (32,000 µg/m^3) through SS-4 (580 µg/m^3). The TCE concentration in sub-slab soil vapor was significantly lower (i.e., <50 µg/m^3) in SS-5 and TCE was not detected above the laboratory reporting limit in SS-6.

- PCE, 1,1,1-TCA, and TCE were detected in sub-slab soil vapor below SCGs beneath the east building. PCE concentrations of 140 µg/m^3 and 150 µg/m^3 were detected in SS-7 and SS-8, respectively. 1,1,1-TCA concentrations of 180 µg/m^3 and 4.1 µg/m^3 were detected in SS-7 and SS-8, respectively. A

TCE concentration of 5.5 µg/m^3 was detected in SS-8 and TCE was not detected above the laboratory reporting limit in SS-7.

Groundwater

- A number of VOCs were detected in shallow groundwater above SCGs at the AGW-9 (10-11 ft bls) and AGW-11 (10-11 ft bls) temporary monitoring well (vertical profile boring [VPB]) locations. Both of these groundwater samples were collected just below the water table. At all other VPB locations all VOC detections were below SCGs or not detected above the laboratory reporting limit.

- No constituents were detected above the laboratory reporting limits in the groundwater samples that were collected from the monitoring well network.

- Concentrations of VOCs in groundwater in the vicinity of the former UST area naturally attenuate before reaching the southern perimeter/property boundary. Based on the RI data, it is not expected that these VOCs will migrate off site.

- The groundwater data collected during the RI, in conjunction with previous investigation data and the RI soil data, indicate that there are no source-strength groundwater impacts or "source areas" and suggests that there is no groundwater plume. Furthermore, the remediation of former soil impacts has had a beneficial effect on groundwater quality.

Indoor Air

- TCE and PCE were not detected above SCGs or the laboratory reporting limits. Methylene chloride was detected in one indoor air sample at a concentration below its SCG. TCE, PCE, and methylene chloride are the only compounds that have associated SCGs for indoor air.

- The IAQ data collected during the RI, in conjunction with the sub-slab soil vapor data collected during the RI, indicate that the vapor intrusion pathway is not complete. Factors that may be responsible for the incomplete vapor intrusion pathway include the operation of the heating, ventilation, and air conditioning (HVAC) system (the building interior is under positive pressure) and the integrity of the floor slab, which is typically approximately six inches thick.

Fate and Transport

- COCs were selected based on comparison (i.e., exceedance) to SCGs (as applicable). The following COCs were identified in one or more media:
    - PCE
    - TCE
    - 1,1,1-TCA
    - 1,1-dichloroethane (1,1-DCA)
    - Freon 113
    - Toluene
    - Ethylbenzene
    - Xylenes
- The media of concern are sub-slab soil vapor and groundwater and the COCs are primarily chlorinated and aromatic VOCs. In general, the VOCs detected in groundwater during the RI are relatively mobile in groundwater having a low to moderate solubility and/or low K_{oc} and K_{ow} values.
- Based on the presence of daughter VOCs (i.e., TCE and cis-1,2-dichloroethene [cis-1,2-DCE]) in groundwater, a number of biodegradation processes may have occurred or may be occurring at the Site. An environment with a lack of dissolved oxygen would have established conditions for the anaerobic biodegradation of PCE resulting in the formation of the various degradation products, including TCE and cis-1,2-DCE. Degradation of these constituents may be occurring along the groundwater flow path (i.e., between the former UST area [AGW-9 location] and the southern perimeter/property boundary), as evidenced by constituent concentrations in downgradient VPB locations AGW-2 and AGW-11 (i.e., COC concentrations below SCGs [with the exception of 1,1,2-Trichloro-1,2,2-trifluoroethane in the AGW-11 water-table sample, which was not detected hydraulically upgradient at AGW-9]).

Conceptual Site Model

- VOCs were released at some point in the past to soil and groundwater in the former UST area and former dry well area. VOCs in soil in the former UST area and former dry well area were remediated and there is no continuing source of VOCs to groundwater. VOC concentrations were detected in soil in the former UST area that are well below SCGs. VOC concentrations in groundwater that are slightly above SCGs are present only in the vicinity of the former UST area (with the exception of 1,1,2-Trichloro-1,2,2-trifluoroethane in the AGW-11 water-table sample).

- VOCs in groundwater in the vicinity of the former UST area are degrading/attenuating. Groundwater VOC concentrations are below SCGs at locations downgradient of the former UST area. Based on the RI data, it is not expected that these VOCs will migrate off site.

- Freon 113 was detected in groundwater at a concentration above its respective SCG at the AGW-11 location, which was located approximately 30 feet upgradient of the southern perimeter/property boundary. It is believed that Freon 113 was previously used at the Site. The exact release mechanism for Freon 113 is not known. Freon 113 was only detected at the AGW-2 and AGW-11 locations.

- The primary source of VOCs in sub-slab soil vapor was VOCs in soil in the former UST area (prior to remediation), with a lesser contribution from VOCs in shallow groundwater. VOCs in sub-slab soil vapor underlying the west building are primarily derived from lateral diffusion from the former soil VOC source area (i.e., former UST area). This conclusion is supported by data that indicates sub-slab soil vapor VOC concentrations are highest closest to the former soil VOC source area and decrease with increasing distance from the former soil VOC source area. VOCs in sub-slab soil vapor are trapped beneath the building and are not expected to migrate laterally away from the building due to the presence of footings that are approximately 10 feet deep.

Recommendations

Based on the conclusions provided in this RI Report, ARCADIS recommends the following:

- Install two (2) new permanent monitoring wells (i.e., water-table wells) at the AGW-9 and AGW-11 locations to confirm natural attenuation of VOC concentrations over time.

1. Introduction

This Remedial Investigation (RI) Report (RI Report) has been prepared by ARCADIS on behalf of Curtiss-Wright Flow Control Corporation, Target Rock Division (Target Rock), and is being submitted pursuant to Section II of the Order On Consent (Order) Index # W1-1031-04-10 that was executed by the New York State Department of Environmental Conservation (NYSDEC) and Target Rock, effective August 10, 2008. The Order required that a Remedial Investigation/Feasibility Study (RI/FS) be conducted for the Target Rock Site (referred to in this RI Report as the Site). The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 1-52-119 with a Classification 2.

The general objectives of the RI/FS process are as follows:

- Determine the nature and extent of the constituents of concern (COCs) on-site, and if warranted based on the on-site perimeter/property boundary sampling data, off-site, and assess potential impacts to public health, welfare, and the environment caused by the release or potential release of COCs at the Site.

- Develop and evaluate alternatives for remedial action, if needed, to prevent, mitigate, or otherwise respond to or remedy a release or potential release of COCs at or from the Site by conducting an FS.

- Compile all related (i.e., current and previous) data collected from the Site by relevant parties, including Target Rock and the NYSDEC, into one, comprehensive RI Report.

- Incorporate all elements of an RI/FS, as set forth in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, the National Contingency Plan (NCP), the U.S. Environmental Protection Agency (EPA) Guidance Document entitled Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (EPA, 1988), and any subsequent revisions thereto, in effect at the time the RI/FS Work Plan was submitted, and appropriate EPA and NYSDEC technical and administrative guidance documents (including the following: NYSDEC 1990; NYSDEC 2002; NYSDEC 2006).

- Conduct the RI in a dynamic manner to allow flexibility in the technical approach via phasing of field efforts (if warranted), thereby maximizing effectiveness of data collection efforts and quality/usability of data.

1.1 Site Background

This section of the RI Report provides the Site description, a summary of Site history, and a summary of previous investigations and remedial activities conducted at the Site.

1.1.1 Site Description

The Site is located at 1966E Broadhollow Road, East Farmingdale, Town of Babylon, Suffolk County, New York and is identified by Tax Map Number: District 0100, Section 031, Block 1, Lots 2.2 through 2.4. The Site location is shown on Figure 1. The approximately 11-acre Site contains two manufacturing buildings (east building and west building), each situated on 5-acre lots, and a 1-acre right-of-way. The west building is used for manufacturing and contains office space; the east building is used for shipping and receiving, valve testing, and contains additional manufacturing and office space. The areas of the Site not occupied by buildings are largely paved and used for parking. The Site is secured by a perimeter fence and automatic gate and is situated on relatively flat topography on the western edge of an industrial area. Residential areas are located to the south and west of the Site, a commercial building is located to the north of the Site, and an industrial building and recharge basin are located to the east of the Site. Current Site features and structures are shown on Figure 2.

According to the Order, the Site is owned by the Town of Babylon Industrial Development Agency and Curtiss-Wright Flow Control Corporation is the lessee of the Site under a certain Sales-Leaseback Agreement made and entered into on February 25, 2003.

Target Rock manufactures valves used primarily for nuclear power applications. Manufacturing processes include machining and testing of valves. One of the elements of the manufacturing process is the non-destructive testing of the valves for minor cracks. Target Rock began manufacturing operations at the Site in 1982 and operations have been ongoing to the present.

1.1.2 Site History

The Site was originally used as a sand and gravel pit. In 1972 the east building was constructed and used as a warehouse by J.C. Penney until Target Rock occupied the building in 1981. The exact date of construction of the west building is unknown. The west building was leased as office space by Target Rock until it was purchased by Target Rock and expanded by 40,000 square feet in 1975. Target Rock began manufacturing and testing of valves at the Site in early 1982 after the east building was purchased by Curtiss-Wright Corporation in mid-1981.

1.1.3 Previous Investigations and Remedial Activities

This section of the RI Report summarizes the scope and results of pre-RI (prior to 2009) investigations and remedial activities, as well as investigations independently completed by the State of New York (i.e., NYSDEC), at the Site. These investigations and remedial activities are also summarized in the Records Search Report for the Site that was prepared by ARCADIS (ARCADIS, 2008). These data were utilized, where applicable, in the development of the scope of the Target Rock Site RI, described in Section 3 of this RI Report. The results as described herein have been incorporated, where applicable, into Section 5 of this RI Report.

From mid-1982 to September 1983 wastewater from valve testing operations was discharged to a dry well located toward the rear of the east manufacturing building (i.e., south side of the building). Wastewater from these operations contained less than 5 percent 1,1,1-trichloroethane (1,1,1-TCA), classifying it as an industrial waste discharge rather than a hazardous waste discharge. The Suffolk County Department of Health Services (SCDHS) collected several samples from the dry well in 1982 and 1983. The analytical results indicated that 1,1,1-TCA, tetrachloroethene (PCE), and other volatile organic compounds (VOCs) were detected. In addition, during an April 1982 inspection by the SCDHS, a number of stored drums were present at the Site. The drums contained various compounds, including oils, Freon, acetone, kerosene, 1,1,1-TCA, PCE, and unknowns. The drum storage area was located on the east side of the east building.

In late 1983, at the direction of the SCDHS, Target Rock conducted the following actions: (1) discontinued wastewater discharge to the dry well located toward the rear of the east manufacturing building (i.e., south side of the building); (2) pumped and cleaned out the dry well prior to removal; (3) removed the dry well and surrounding impacted soils; and, (4) installed two (2) 2,000-gallon stainless steel storage tanks to

contain Site generated wastewater. The storage tanks were installed in the vicinity of the former dry well that was removed. In addition, a secure drum storage area was constructed on the east side of the east building, which involved the construction of a roof and a berm. The storage tanks and secure drum storage area were inspected and approved by the SCDHS.

A Phase I Investigation was conducted at the Site by Roux Associates, Inc. (Roux) in 1988 and a Phase II Investigation was conducted at the Site by Lawler, Matusky and Skelly Engineers (LMS) in 1992. These investigations were conducted under contract to the NYSDEC.

A hydrogeologic investigation was conducted at the Site by ERM-Northeast (ERM) in 1996 and 1997 related to the wastewater discharge to the former dry well located toward the rear of the east manufacturing building (i.e., south side of the building).

An environmental compliance assessment was conducted at the Site by P.W. Grosser Consulting, Inc. (PWGC) in 2002 to identify and evaluate the presence of recognized environmental conditions and to determine Target Rock's level of compliance with applicable environmental regulations.

A 550-gallon underground storage tank (UST) was removed on the western side of the west building and VOC-impacted soils were excavated from the Site by AARCO Environmental Services Corp. (AARCO) in May 2003 under the oversight of the SCDHS. An investigation of the former UST area was conducted at the Site by AARCO in October 2003.

Soil remediation and groundwater testing were conducted at the Site by CA RICH Consultants, Inc. (CA RICH) in 2004 to further investigate and remediate previously identified on-site soil impacts associated with the former UST area and determine shallow groundwater quality in the vicinity of the west building at the Site.

1.1.3.1 Investigations

This section summarizes the following investigations that were performed at the Site: (1) Phase I Investigation conducted by Roux in 1988 under contract to the NYSDEC, (2) Phase II Investigation conducted by LMS in 1992 under contract to the NYSDEC, (3) Hydrogeologic Investigation conducted by ERM in 1996 and 1997, (4) Environmental Compliance Assessment conducted by PWGC in 2002, (5) Former UST

Area Investigation and Remediation conducted by AARCO in October 2003, and, (6) Groundwater Testing and Remediation conducted by CA RICH in 2004.

1.1.3.1.1 Phase I Investigation

A Phase I Investigation was conducted at the Site by Roux in 1988. The Phase I Report was prepared in May 1988 for the NYSDEC and included a preliminary Hazard Ranking Score (HRS), an assessment of the available information, and recommendations for Phase II studies (Roux, 1988).

The Phase I Investigation indicated that, based on the discharge of wastewater containing solvents, and the apparent direct pathway to the water table, there was a possibility for groundwater contamination at the Site. The Phase I Report recommended that a Phase II Investigation be conducted at the Site to determine if there was groundwater contamination and if present, its extent.

1.1.3.1.2 Phase II Investigation

Based on the findings of the Phase I Investigation Report, a Phase II Investigation was conducted at the Site by LMS in 1992. The Phase II Investigation Report was prepared in May 1993 for the NYSDEC (LMS, 1993).

The Phase II Investigation scope of work included a literature review, a Site reconnaissance, a groundwater investigation, soil sampling, groundwater sampling, and catch basin sampling.

The groundwater investigation involved the installation of four (4) permanent monitoring wells (TRMW-1 through TRMW-4) in July 1992 and slug testing to determine the average horizontal hydraulic conductivity of the aquifer within each monitoring well's screened interval. The monitoring wells were screened at or near the bottom of the Upper Glacial aquifer as the intent of the Phase II Investigation was to evaluate constituents with densities greater than water (e.g., 1,1,1-TCA) that were discharged to the dry well located on the south side of the east building. The water table was encountered at approximately 10 feet below land surface (ft bls) during the groundwater investigation.

One (1) soil sample was collected from the TRMW-4 boring at the water table (12-14 ft bls) and submitted to a laboratory for the analysis of target compound list (TCL) VOCs, TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated

biphenyls (PCBs), target analyte list (TAL) metals, and extraction procedure (EP) toxicity metals. TRMW-4 is located in the vicinity of the former dry well. The purpose of this soil sample was to determine whether any residual soil impacts existed in the vicinity of the former dry well. The analytical results for the soil sample that was collected from the TRMW-4 boring (12-14 ft bls) indicated that organic constituents (i.e., VOCs, SVOCs, pesticides, PCBs) were not detected above the laboratory quantitation limits. The EP toxicity analysis indicated that leachable metals were not detected above the laboratory quantitation limits.

Groundwater samples were collected from monitoring wells TRMW-1 through TRMW-4 and submitted to a laboratory for the analysis of TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and filtered metals (if necessary), cyanide, chemical oxygen demand (COD), and total dissolved solids/total suspended solids (TDS/TSS). The analytical results for the groundwater samples that were collected from monitoring wells TRMW-1 through TRMW-4 indicated that 1,1,1-TCA was detected at concentrations of 43 micrograms per liter (µg/L) in TRMW-2 and 66 µg/L in TRMW-4, which were above the NYSDEC Class GA groundwater standard for 1,1,1-TCA (5 µg/L). 1,1,1-TCA was detected at an estimated concentration of 4 µg/L in monitoring well TRMW-3 and was not detected above the laboratory quantitation limit in monitoring well TRMW-1. Other VOCs were detected at low-level concentrations generally below the laboratory quantitation limits.

One (1) water sample and one (1) soil sample were collected from a catch basin located adjacent to the former drum storage area and submitted to a laboratory for the analysis of TCL VOCs, TCL SVOCs, TCL pesticides, and TCL PCBs. The analytical results for the water sample that was collected from the catch basin indicated that 1,1,1-TCA was detected at a concentration of 20 µg/L and 1,1-dichloroethene (1,1-DCE) was detected at a concentration of 7 µg/L. The analytical results for the soil sample that was collected from the catch basin indicated that a number of tentatively identified compounds (TICs) were detected; compounds primarily associated with petroleum products. The soil sample appeared to be slightly stained with oil and exhibited a petroleum hydrocarbon odor.

The Phase II Investigation Report recommended the following:

- Periodic sampling of the monitoring wells to evaluate groundwater concentrations over time and additional investigation if the constituent concentrations remained stable or increased.

- Conduct an inventory of wells in the area to determine whether any public or residential wells are located downgradient of the Site and sampling of downgradient wells to ensure that the Site is not impacting the groundwater quality.

- Installation of several additional wells downgradient of the Site.

- Conduct a file review to ensure that USTs that were removed were not leaking and that the USTs currently on-site were in compliance with environmental regulations. Documentation reviewed by LMS during the literature review indicated that six USTs were present at the Site in 1984.

1.1.3.1.3 Hydrogeologic Investigation

A hydrogeologic investigation was conducted at the Site by ERM in 1996 and 1997 (ERM, 1997). The hydrogeologic investigation was conducted in accordance with a NYSDEC-approved Work Plan that was submitted in November 1995. The Work Plan was related to the wastewater discharge to the former dry well located on the south side of the east building.

The hydrogeologic investigation scope of work included the installation of a new upgradient monitoring well (TRMW-5), groundwater sampling, a well search, and groundwater modeling.

The new upgradient monitoring well (TRMW-5) was installed in April 1996. The monitoring well was installed at the northern property boundary, north of the west building. Monitoring well TRMW-5 was screened from 20 to 40 ft bls so that the screen interval would be consistent with the screen interval of the other upgradient monitoring well (TRMW-1) at the Site.

Groundwater samples were collected from monitoring wells TRMW-1 through TRMW-5 and submitted to a laboratory for the analysis of TCL VOCs by NYSDEC Analytical Services Protocol (ASP) Method 91.1. The analytical results for the groundwater samples that were collected from monitoring wells TRMW-1 through TRMW-5 between April 1996 and March 1997 indicated that VOCs were not detected above the laboratory quantitation limit in upgradient monitoring wells TRMW-1 and TRMW-5 (with the exception of chloroform at a concentration of 1 µg/L in November 1996). VOCs were not detected above the laboratory quantitation limit in downgradient monitoring wells TRMW-3 (with the exception of acetone at a concentration of 3 µg/L in March 1997) and TRMW-4 (with the exception of 1,1,1-TCA at a concentration of 9 µg/L in

March 1997). 1,1,1-TCA, 1,2-dichloroethene (1,2-DCE), and 1,1-dichloroethane (1,1-DCA) were detected at concentrations of 7 µg/L, 28 µg/L, and 1 µg/L, respectively, in downgradient monitoring well TRMW-2 in April 1996. The concentrations of the constituents detected in TRMW-2 consistently decreased during the four quarters of groundwater monitoring that were conducted between April 1996 and March 1997.

A well search was conducted to identify all potential downgradient receptors. Public water supply wells were identified and listed in the Hydrogeologic Investigation report (ERM, 1997). Five (5) public water supply wells were identified during the comprehensive well search. Three of the wells are located either upgradient or sidegradient and two of the wells are located downgradient/sidegradient.

A two-dimensional solute transport modeling study was conducted to evaluate potential downgradient impacts from the wastewater discharge to the former dry well in 1982-1983. The objective of this effort was to simulate the off-site migration of constituents contained in the wastewater and to determine whether any downgradient receptors were impacted in the past or would be impacted in the future. The solute transport model simulated the generation of a slug-like plume of 1,1,1-TCA and its downgradient migration following the disposal of process wastewater in the on-site dry well in 1982-1983. 1,1,1-TCA plume concentrations were predicted to decline through natural attenuation with time and distance from the Site. The solute transport modeling indicated that no receptors have been or will be impacted by the simulated 1,1,1-TCA release.

Based on the consistency of the groundwater monitoring data and the concentrations of constituents that were detected during the 1996-1997 groundwater monitoring program, the Hydrogeologic Investigation report (ERM, 1997) indicated that there is no continuing source of VOC impacts, and recommended that the groundwater monitoring program be discontinued and that no additional remediation was required at the Site.

1.1.3.1.4 Environmental Compliance Assessment

An environmental compliance assessment was conducted at the Site by PWGC in 2002 to identify and evaluate the presence of recognized environmental conditions and to determine Target Rock's level of compliance with applicable environmental regulations (PWGC, 2002).

The environmental compliance assessment scope of work included a visual inspection of the Site and surrounding areas, interviews, a review of historical information and aerial photographs, and a review of pertinent local, state, federal, and facility records.

Findings of the environmental compliance assessment related to Site environmental conditions are as follows:

- According to a regulatory agency database search, the Site was listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database as a NFRAP (no further remedial action planned) site and on the Hazardous Substance Waste Disposal Site Inventory (HSWDS) database as a delisted site.

- Groundwater beneath the Site is approximately 25 feet below grade and flows to the south. One groundwater monitoring well was observed at the Site at the time of the Site inspection and a second well was noted on the survey map that was provided to PWGC by Target Rock.

- Sanitary wastewater is discharged to the municipal sewer system, which is part of the Southwest Sewer District that is operated by the Suffolk County Department of Public Works (SCDPW). The buildings were connected to the municipal sewer in approximately late 1982. Storm drains are located throughout the parking areas.

- PWGC's Site inspection identified the presence of eight aboveground storage tanks (ASTs) and two drum storage areas at the Site. Secondary containment is provided for all of the ASTs and the drum storage areas and no evidence of spills and/or staining around any of the ASTs was observed during the Site inspection.

- PWGC's Site inspection identified the presence of one fuel oil UST and four propane USTs at the Site. In addition to the five active USTs, six former USTs were reportedly removed from the Site. The one fuel oil UST is properly permitted with the SCDHS.

1.1.3.1.5 Former UST Area Investigation

A former UST area investigation was conducted at the Site by AARCO in 2003 (AARCO, 2004). The investigation of the former UST area was conducted in October 2003 subsequent to the discovery and removal of one (1) 550-gallon UST and the excavation of VOC-impacted soils in May 2003. Endpoint soil samples collected from

the former UST excavation area indicated that VOC-impacted soils were still present following excavation activities.

1.1.3.1.5.1 Former UST Area Background

An out-of-service 550-gallon UST of former unknown use was identified by Target Rock personnel on the western side of the west building. The SCDHS and other appropriate parties were notified that the UST was to be removed; the UST was removed by AARCO under the oversight of the SCDHS in May 2003. The top of the UST was located just below land surface and the bottom of the UST was located approximately 4 ft bls. Following removal, the UST was inspected and no pitting or holes were observed; the UST was then transported off-site for disposal/salvage at an appropriate facility.

1.1.3.1.5.2 Former UST Area Investigative Activities

The former UST area investigation involved the advancement of soil borings and the collection of soil samples to determine the approximate lateral and vertical extent of any remaining soil impacts following the removal of impacted soils in May 2003 (see Section 1.1.3.2.2 for a description of soil remediation activities), the advancement of one (1) temporary groundwater monitoring well and the collection of one (1) groundwater sample, and the inspection and sampling of two (2) adjoining leaching structures to determine the prior uses of the structures and determine if the structures were related to the former UST.

Eight (8) soil borings (SB-1 through SB-8) were advanced using direct push drilling techniques (i.e., Geoprobe®) to facilitate the collection of soil samples. The soil borings were advanced around the former UST area to depths ranging from 12 to 16 ft bls. The water table was encountered at approximately 14 ft bls during soil boring advancement. The soil samples were field screened using a photoionization detector (PID) and visual and olfactory observations were noted. PID readings ranged from non-detect to 250 parts per million (ppm). Soil samples from SB-1 (16-17 ft bls), SB-5 (10-12 ft bls), SB-6 (8-9 ft bls), and SB-8 (9-10 ft bls) were submitted to a laboratory for the analysis of Suffolk County List VOCs by EPA Method 8260, NYSDEC Spills Technology and Remediation Series (STARS) List SVOCs by EPA Method 8270, and Suffolk County List metals. The analytical results for the soil samples that were collected from soil borings SB-1, SB-5, SB-6, and SB-8 indicated that VOCs were not detected above regulatory action levels, with the exception of SB-5 (10-12 ft bls), where PCE was detected at a concentration of 9,700 micrograms per kilogram (µg/kg),

trichloroethene (TCE) was detected at a concentration of 780 µg/kg, and 1,1,1-TCA was detected at a concentration of 500 µg/kg. Soil boring SB-5 was located approximately 10 feet south of the former UST excavation area. VOCs were not detected above the laboratory method detection limit in the soil samples collected from SB-6 and SB-8. SVOCs and metals were not detected above regulatory action levels.

One (1) temporary monitoring well (GW-1) was advanced using direct push drilling techniques (i.e., Geoprobe®) to facilitate the collection of a groundwater sample. GW-1 was advanced at the SB-1 soil boring location. The groundwater sample was collected using a 2-foot stainless steel screen that was set at 14 to 16 ft bls. A sheen was observed on the sample tubing and a slight odor was noted. The groundwater sample was submitted to a laboratory for the analysis of Suffolk County List VOCs by EPA Method 8260, NYSDEC STARS List SVOCs by EPA Method 8270, and Suffolk County List metals. The analytical results for the groundwater sample that was collected from GW-1 indicated that VOCs were detected above regulatory action levels. PCE was detected at a concentration of 280 µg/L, TCE was detected at a concentration of 200 µg/L, 1,1,1-TCA was detected at a concentration of 95 µg/L, 1,1-DCA was detected at a concentration of 17 µg/L, and cis-1,2-dichloroethene (cis-1,2-DCE) was detected at a concentration of 48 µg/L. SVOCs were not detected above the laboratory method detection limit; metals were not detected above regulatory action levels.

The two (2) adjoining leaching structures were inspected and soil samples were collected from approximately 8 ft bls from within each structure. The soil sample collected from the “distribution box” structure (i.e., structure closest to the building) exhibited a PID reading of 150 to 250 ppm and appeared to be impacted based on visual and odor observations. The soil sample collected from the overflow structure (OF-1) did not exhibit any PID responses nor evidence of impacts based on visual and odor observations. The soil samples were submitted to a laboratory for the analysis of Suffolk County List VOCs by EPA Method 8260, NYSDEC STARS List SVOCs by EPA Method 8270, Suffolk County List metals, and total petroleum hydrocarbons (TPH) by EPA Method 8015. The analytical results for the soil sample that was collected from the “distribution box” structure indicated that VOCs were detected at concentrations above regulatory action levels. PCE was detected at a concentration of 17,000 µg/kg, 1,1,1-TCA was detected at a concentration of 37,000 µg/kg, 1,1-DCA was detected at a concentration of 7,500 µg/kg, and 1,2,4,5-tetramethylbenzene was detected at a concentration of 2,200 µg/kg. SVOCs were either not detected above the laboratory method detection limit or detected below regulatory action levels. Metals (chromium, copper, and nickel) were detected above regulatory action levels. TPH was not

detected above the laboratory method detection limit. The analytical results for the soil sample that was collected from the overflow structure indicated that VOCs were not detected above regulatory action levels. SVOCs were not detected above the laboratory method detection limit. Metals and TPH were not detected above regulatory action levels.

The Evaluation of Former UST Area & Remedial Work Plan Report (AARCO, 2004) recommended the following:

- Excavation of additional soil beyond the initial former UST area excavation.
- Additional shallow groundwater sampling.
- Remediation of the "distribution box" structure.

1.1.3.1.6 Groundwater Testing

Groundwater testing was conducted at the Site by CA RICH in 2004 (CA RICH, 2004). These activities were performed in accordance with a SCDHS-approved Work Plan dated March 5, 2004. The purpose of the work was to test the shallow groundwater quality in the vicinity of the west building at the Site.

The groundwater testing involved the advancement of temporary monitoring wells and the collection of groundwater samples. Four (4) temporary monitoring wells (GW-1 through GW-4) were advanced using direct push drilling techniques (i.e., Geoprobe®) to facilitate the collection of groundwater samples. GW-1 was advanced at the B-3 soil boring location, which was situated within the "distribution box" structure. GW-2 and GW-3 were advanced at the B-8 and B-9 soil boring locations, respectively, which were situated upgradient of the former UST excavation area. GW-4 was advanced at the B-10 soil boring location, which was situated southwest of the former UST excavation area. The groundwater samples were collected from 16 to 18 ft bls and submitted to a laboratory for the analysis of VOCs by EPA Method 8260. The analytical results for the groundwater samples that were collected from GW-1 through GW-4 indicated that VOC concentrations were below NYSDEC Class GA groundwater standards.

The Soil Remediation & Groundwater Testing Report (CA RICH, 2004) recommended that one (1) permanent monitoring well be installed in the southern portion of the former UST excavation area to evaluate VOC concentrations over time in the shallow groundwater in this area of the Site.

1.1.3.2 Remedial Activities

1.1.3.2.1 Former Dry Well Remedial Activities

As discussed previously, at the direction of the SCDHS, Target Rock conducted the following actions in late 1983: (1) discontinued wastewater discharge to the dry well located toward the rear of the east manufacturing building (i.e., south side of the building), (2) pumped and cleaned out the dry well prior to removal, (3) removed the dry well and surrounding impacted soils, and, (4) installed two (2) 2,000-gallon stainless steel storage tanks to contain the wastewater. The storage tanks were installed in the vicinity of the former dry well that was removed. In addition, a secure drum storage area was constructed at the Site, which involved the construction of a roof and a berm. The secure drum storage area was inspected and approved by the SCDHS.

1.1.3.2.2 Former UST Area Remedial Activities

Subsequent to the removal of the former UST that was located on the western side of the west building, the surrounding soils were observed to be impacted (i.e., solvent-type odors and visual evidence of impacts were noted). Impacted soils were excavated by AARCO in May 2003 (AARCO, 2004) to the extent practicable using a backhoe; approximately 21 tons of soil were excavated and transported off-site for disposal as F002 Hazardous Waste Solids at CWM Chemical Services, LLC in Model City, New York.

The soil excavation activities were limited by the building foundation on the east side of the excavation (i.e., western wall of west building). One (1) endpoint soil sample was collected from each of the four sidewalls of the excavation and two (2) endpoint soil samples were collected from the bottom of the excavation (approximately 8 ft bls). The majority of the endpoint soil samples appeared to be impacted based on odor and visual observations.

The endpoint soil samples were submitted to a laboratory for the analysis of Suffolk County List VOCs by EPA Method 8260, NYSDEC STARS List SVOCs by EPA Method 8270, and Suffolk County List metals. The analytical results of the endpoint soil samples indicated that elevated concentrations of VOCs were detected; specifically PCE and other solvent-type VOCs. The highest concentrations of total VOCs (332 milligrams per kilogram [mg/kg]) were detected in the southern sidewall soil sample; elevated concentrations were also detected in the eastern (234 mg/kg) and northern

(197 mg/kg) sidewall soil samples, and the southern bottom soil sample (175 mg/kg). SVOCs and metals impacts were not evident based on the soil sample analytical data.

The SCDHS also noted the presence of two manhole covers adjacent to the former UST area and requested that these structures (i.e., "distribution box" and overflow structures) be sampled to ascertain if they were related to the former UST.

Additional soil remediation activities associated with the former UST area were conducted at the Site by CA RICH in 2004 (CA RICH, 2004). These activities were performed in accordance with a SCDHS-approved Work Plan dated March 5, 2004. The purpose of the work was to further investigate and remediate previously identified on-site soil impacts associated with the former UST area, including the "distribution box" and overflow structures, at the Site.

The soil remediation involved the advancement of soil borings and the collection of soil samples to further delineate the lateral extent of any remaining soil impacts, the dye testing of potential discharge points to determine whether any liquids discharged into selected interior drainage structures are conveyed directly to the existing municipal sewer system or to the on-site sanitary system situated behind the western building, and the excavation and off-site disposal of impacted soil.

Ten (10) soil borings (B-1 through B-10) were advanced using direct push drilling techniques (i.e., Geoprobe®) to facilitate the collection of soil samples. The soil borings were advanced in the vicinity of the former UST excavation area and in the "distribution box" and overflow structures. The water table was encountered at approximately 15 ft bls during soil boring advancement. The soil samples were field screened using a PID. Select soil samples were submitted to a laboratory for the analysis of VOCs by EPA Method 8260. The soil sample collected from the "distribution box" structure was also analyzed for Suffolk County List metals. The analytical results for the soil samples that were collected from select soil borings and field screening were used to determine the extent of the additional soil excavation and to pre-characterize the soil for off-site disposal.

Two indoor floor drains and three slop sinks were physically evaluated via dye testing. Dyed water was introduced into the structures in an effort to visually trace the fluid flow until a municipal sewer connection was reached. Dye testing observations revealed that an out-of-service open plumbing fitting situated behind a slop sink discharged directly into the "distribution box" structure. These interior remnants of the piping were

removed by Target Rock at the request of the SCDHS. All other structures that were dye tested were observed to be plumbed directly to the municipal sewer.

Impacted soils were excavated from an area approximately 38 feet by 14 feet. The soil excavation area extended approximately 5 feet north, 5 feet west, and 20 feet south of the initial former UST excavation area (i.e., soil remediation work conducted by AARCO in May 2003). Approximately 255 tons of soil were excavated and transported off-site for disposal as 'hazardous waste' at the Stablex Facility in Canada. The soil was pre-treated and stabilized at the Stablex Facility to produce a non-hazardous concrete-like material that was placed in a storage cell and permanently landfilled. In addition, excavated soil that was excavated from the bottom of the excavation and containerized in five (5) 55-gallon drums was transported off-site for disposal as 'hazardous waste' at CWM Chemical Services, LLC in Model City, New York.

Twelve (12) endpoint soil samples were collected from the sidewalls and bottom of the excavation following the completion of the excavation activities. The endpoint soil samples were submitted to a laboratory for the analysis of VOCs by EPA Method 8260B. The analytical results of the endpoint soil samples indicated that PCE was detected above SCDHS cleanup criteria (1,400 µg/kg) in one soil sample (South Bottom), at a concentration of 8,200 µg/kg. However, VOCs were not detected in a soil sample (South Bottom 2) collected only 4 feet to the south of the sample "South Bottom". The South Bottom endpoint soil sample was collected at a depth of approximately 12 ft bls (approximately 3 ft above the water table) and the South Bottom 2 endpoint soil sample was collected at a depth of approximately 13 ft bls. The subsurface soil was remediated to the extent physically feasible (undermining the adjacent building footing was the concern). Based on the endpoint soil sample data, the impacted soil that was left in place is assumed to be a minimal volume.

A vacuum truck was used to remove soil from the bottom (8 ft bls) of the "distribution box" structure to a depth of approximately 13.5 ft bls, at which depth the concrete rings were undermined and the structure collapsed. The concrete rings and additional soil were then removed using a track-hoe. An endpoint sample could not be collected prior to the collapse of the concrete rings; however, pre-excavation soil sample analytical results indicated that the VOCs and metals concentrations at 14 ft bls were below SCDHS soil cleanup levels. The soil removed from the "distribution box" structure was also transported off-site for disposal at the Stablex Facility in Canada. The former "distribution box" structure influent pipe was plugged with concrete at the building line. The steel covers and concrete collars were removed from both the "distribution box" and overflow structures; the former structures were then backfilled.

1.2 Remedial Investigation Objectives and Approach

This section of the RI Report lists the specific objectives of the RI/FS, provides an overview of the scope of RI activities based on prior submittals to the NYSDEC, and describes the methods employed to implement the scope and achieve the objectives of the RI.

To successfully meet the RI objectives in an effective manner, additional on-site data were collected during the RI. The general hydrogeologic framework on-site was defined during the Phase II Investigation (LMS, 1993) and the 1996-1997 Hydrogeologic Investigation (ERM, 1997). The data collected during the investigations performed by others between 1992 and 2004 further characterized the existing on-site conditions.

1.2.1 Objectives

The following are the objectives of the RI:

- Determine if on-site remediated areas (i.e., former UST area) are a potential continuing source(s) of impacts to groundwater.
- Characterize the shallow (i.e., approximately 7 ft bls) soil vapor quality on-site.
- Characterize the sub-slab soil vapor quality on-site (i.e., beneath the west building and the southwest and southeast portions of the east building).
- Characterize the shallow groundwater quality on-site.
- Characterize the indoor air quality (IAQ) on-site (i.e., in the west building and the southwest and southeast portions of the east building).
- Fully develop the list of COCs for the Site.
- Characterize the nature and extent of risks posed by affected on-site media.
- Determine potential receptors and exposure pathways associated with potential exposure to soil, soil vapor, and groundwater.

- Determine if additional data collection efforts are warranted to meet RI goals based on the data collected on-site.

1.2.2 Scope

In accordance with the provisions of the NYSDEC-approved RI/FS Work Plan, the scope of work outlined therein was implemented, but with the allowance for future modifications in scope to meet the objectives of the RI (dynamic approach). Modifications to RI work scope were implemented based on field conditions; larger, more strategic changes in scope were developed and specified in a Supplemental RI Work Plan that was submitted to the NYSDEC. Data obtained from carrying out the work specified in the Supplemental RI Work Plan have been incorporated into this RI Report. Additionally, this RI Report has utilized, where applicable, previous and third party (i.e., NYSDEC) data obtained for the Site. In summary, this RI Report incorporates, as appropriate, data obtained via the NYSDEC-approved RI/FS Work Plan and Supplemental RI Work Plan, and utilized, as applicable, previous and third party (i.e., NYSDEC) data. The data collection plans, reports, and report results used to guide the RI data collection efforts are listed below:

- Target Rock: Supplemental Remedial Investigation Work Plan dated April 1, 2009 (ARCADIS, 2009a).

- Target Rock: Remedial Investigation/Feasibility Study Work Plan dated February 12, 2009 (ARCADIS, 2009b).

- Target Rock: Soil Remediation & Groundwater Testing Report, 1966E Broadhollow Road, East Farmingdale, New York (CA RICH, 2004).

- Target Rock: Evaluation of Former UST Area & Remedial Work Plan, Curtiss-Wright Flow Control, Target Rock Division, 1966 East Broadhollow Road, Farmingdale, New York 11735 (AARCO, 2004).

- Target Rock: Environmental Compliance Assessment Report, Curtiss-Wright Flow Control, Target Rock Division, 1966E Broadhollow Road, Farmingdale, New York (PWGC, 2002).

- Target Rock: Hydrogeologic Investigation, Target Rock Corporation, East Farmingdale, New York (ERM, 1997).

- NYSDEC: Phase II Investigation, Target Rock Corporation, Site No. 152119, Town of Babylon, Suffolk County (LMS, 1993).

- NYSDEC: Phase I Investigation, Target Rock Corporation, Site No. 152119, Town of Babylon, Suffolk County (Roux, 1988).

1.2.3 Methods

As summarized in Section 1.1.3 (Previous Investigations and Remedial Activities) and further described in the NYSDEC-approved RI/FS Work Plan, several investigations and remedial activities had been undertaken by Target Rock and the NYSDEC to meet various objectives for the Site investigation prior to initiation of the RI. As part of the dynamic approach, an assessment was made as to the adequacy of pre-RI data in meeting the objectives of the RI. It was determined that the data collected during the pre-RI investigations undertaken by Target Rock, as well as the third party (i.e., NYSDEC) data, were adequate to assist in identifying data gaps related to scoping the RI.

The NYSDEC-approved RI/FS Work Plan developed the framework and rationale for RI decision-making using a dynamic approach. Specifically, real-time acquisition of screening-level data, expedited turnaround time of laboratory data, vertical profiles of soil and groundwater, acquisition of sub-slab soil vapor and exterior soil vapor data, and acquisition of IAQ data, coupled with ongoing data analysis and interpretation, allowed for timely decisions to be made. By proceeding in this manner, data collected were constantly made available and considered during the decision-making process and thereby data collection was optimized. Additionally, the provision for development of a Supplemental RI Work Plan(s) was included in the NYSDEC-approved RI/FS Work Plan so that additional data collection could be approved in a rapid manner by the NYSDEC that would limit interruptions in field work to the extent possible. In total, one Supplemental RI Work Plan was prepared, submitted to the NYSDEC, and implemented (see Section 1.2.2 – Scope). The Supplemental RI Work Plan (provided in Appendix A of this RI Report) outlined the proposed on-site indoor air quality sampling and methodology.

1.2.4 Quality Assurance/Quality Control

In accordance with the procedures and protocols set forth in the NYSDEC-approved RI/FS Work Plan, approved quality assurance/quality control (QA/QC) protocols were implemented during the RI process. These included:

1. Following approved methods and standard operating procedures for RI field work, including drilling, sample collection activities, field decontamination procedures, and investigation-derived waste (IDW) management, in accordance with the Field Sampling Plan (FSP).

2. Following methods for sample control, handling, and shipment, as well as laboratory and field QA/QC, in accordance with the Quality Assurance Project Plan (QAPP).

3. Following acceptable health and safety practices in accordance with the Health and Safety Plan (HASP).

4. Maintaining project QA/QC in field decision-making, data management, data reduction, and analysis through utilization of the chain-of-command structure set forth in the Project Management Plan.

2. Physical Characteristics

This section of the RI Report describes the Site characteristics including surface features, surface water hydrology, and drainage. Also described in this section is the understanding of regional geology and hydrogeology, as well as demography and land use that collectively provided the basis for development of the strategy to meet RI objectives. The understanding of local geology and hydrogeology and other local physical characteristics, as developed based on previous Site investigation and RI data, is provided in Section 4 of this RI Report.

2.1 Surface Features

The Site is approximately 75 feet above mean sea level (msl) and, topographically, is relatively flat, sloping downward to the east and southeast. The Site area was once used as a gravel pit; the land surface rises sharply upward along the southern and western property boundaries and then levels off into a residential area. The Site has been fully developed as an industrial property as described in Section 1.1.1 of this RI Report.

2.2 Surface Water Hydrology

Natural surface water features do not exist at the Site. The closest natural surface water body is Massapequa Creek, which is located approximately 2.5 miles to the southwest of the Site.

2.3 Drainage

Storm drains are located throughout the parking areas and receive stormwater runoff from the paved areas. The storm drains discharge the stormwater runoff to the underlying soil. Other portions of the Site (primarily the southern and western perimeters/property boundaries) are unpaved allowing surface infiltration to occur.

2.4 Demography and Land Use

The Site is located on the western edge of an industrial area, and is bordered by residential areas to the south and west, and a commercial building to the north.

2.5 Regional Geology

The unconsolidated geologic deposits underlying Suffolk County consist of clay, silt, sand, and gravel that overlie southward-dipping consolidated bedrock. The crystalline bedrock consists mainly of Precambrian age granite, gneiss, and schist. The overlying unconsolidated sediments were deposited during the Cretaceous age and form, in ascending order, the Raritan and Magothy Formations. During the Pleistocene period, glacial meltwater deposited outwash material forming what is presently known as the Upper Glacial aquifer.

The Raritan Formation consists of the Lloyd Sand and the Raritan Clay. The Lloyd aquifer (the hydrogeologic equivalent of the Lloyd Sand) consists of fine to coarse sand, gravel, commonly with a clayey matrix, and lenses and layers of silty and solid clay. The Raritan confining unit (the hydrogeologic equivalent of the Raritan Clay) is regionally continuous and consists of silty and solid clay, and lenses and layers of sand. Because of its low permeability, the Raritan Clay serves as a confining unit for the underlying Lloyd Sand.

The Magothy Formation is a deltaic deposit consisting of fine to medium sand, clayey in part, interbedded with lenses and layers of coarse sand, silt, and sandy and solid clay. Gravel is common in the basal zone of the Magothy Formation.

The Upper Glacial deposits consist primarily of till and glacial outwash. The till, composed of an unsorted mixture of clay, sand, gravel, and boulders, forms the Harbor Hill and Ronkonkoma terminal moraines. These terminal moraines represent the farthest advance of late-Pleistocene glaciation on Long Island. South of the morainal deposits is a glacial outwash plain, which extends from the Harbor Hill and Ronkonkoma moraines to the Great South Bay, and consists of fine to very coarse sand and pebble to boulder sized gravel which makes up the Upper Glacial aquifer.

2.6 Regional Hydrogeology

The principal aquifers underlying the project area are the Upper Glacial aquifer and Magothy aquifer; these hydrogeologic units are in direct hydraulic connection with each other. Groundwater in the Upper Glacial aquifer and the upper portion of the Magothy aquifer occurs under unconfined conditions at and near the Site (the Magothy aquifer can exhibit semi-confined conditions; the degree of confinement increases with depth due to stratification caused by the numerous silt and clay lenses). Within the project area, the average horizontal hydraulic conductivity of the Upper Glacial aquifer is approximately 270 feet per day (ft/d), with an anisotropy ratio of approximately 10:1 (horizontal to vertical, respectively) (McClymonds and Franke, 1972). The average horizontal hydraulic conductivity of the Magothy aquifer in the project area is approximately 50 ft/d, with an anisotropy ratio of approximately 100:1 (horizontal to vertical, respectively) (McClymonds and Franke, 1972). The regional horizontal direction of groundwater flow is to the south-southeast.

3. Remedial Investigation Activities

This section of the RI Report discusses data considered during development of the RI Report. In summary, data considered include pre-RI data collected by Target Rock and the NYSDEC prior to the execution of the Order, and data collected by Target Rock during the RI. The pre-RI data and data generated by the NYSDEC are summarized in Section 1.1.3 (Previous Investigations and Remedial Activities). Descriptions of the scope of work and methodologies employed during the RI for the investigations of soil, exterior soil vapor/ambient air, sub-slab soil vapor, groundwater, and indoor air, and performance of a geophysical survey are provided in this RI Report section. The scope of the RI is summarized in Table 1. RI sample locations are shown on Figure 2.

The RI field work utilized a number of subcontractors who acted under direction of ARCADIS. The identification of and activities performed by RI subcontractors are as follows:

- TestAmerica Laboratories, Inc.: Provided laboratory analytical services associated with soil and groundwater samples.
- Air Toxics, Ltd.: Provided laboratory analytical services associated with soil vapor and IAQ samples.
- ZEBRA Environmental Corp.: Drilled and abandoned soil borings, temporary soil vapor points (exterior and sub-slab), and temporary monitoring wells.
- Hager-Richter Geoscience, Inc.: Geophysical surveying.

3.1 Geophysical Surveying

Geophysical surveying (i.e., ground penetrating radar [GPR] and precision utility location [PUL]) was conducted as part of the RI at proposed drilling locations to determine whether subsurface utilities were present.

3.2 Soil Investigation

This section of the RI Report discusses the soil investigation that was performed during the RI. The data were used to meet RI objectives and to further develop the conceptual site model (CSM) for on-site soil. Specific activities performed included the drilling of soil borings and collection of subsurface soil samples.

To further characterize on-site soil, a soil boring program was developed for the Site, as outlined in the RI/FS Work Plan. Soil borings were advanced and soil samples were collected in accordance with the procedures and scope outlined in the RI/FS Work Plan. The soil boring sampling activities were conducted in March 2009.

The soil borings were advanced to total depths ranging from 10 to 16 ft bls utilizing direct push drilling techniques (Geoprobe®). The final total depths of the soil borings were determined by the on-site field geologist based on the depth that the water table was encountered in the field. Continuous soil core sampling was performed and soil core samples were lithologically logged.

A total of three (3) soil borings (AGW-8 through AGW-10) were advanced on-site and a total of five (5) soil samples (not including QA/QC samples) were collected for laboratory analysis. Each soil sample was analyzed for TCL VOCs as outlined in the RI/FS Work Plan. A summary of the soil samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the soil analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

Soil borings AGW-9 and AGW-10 were advanced in the former UST area (i.e., just west of northwestern corner of west building) to characterize soil quality just above the current water table (i.e., capillary fringe zone) and just above the historical water table. The soil quality data were used to evaluate if there is a continuing source of VOC impacts to groundwater. Soil boring AGW-8 was advanced in the vicinity of the drum storage area (i.e., just east of southeastern corner of east building) to characterize soil quality just above the current water table.

The number of soil samples collected for laboratory analysis from each soil boring was determined in the field based on visual observations and field screening (i.e., PID measurements). Soil core samples were screened in the field with a PID; PID readings were not detected above background concentrations (i.e., 0.0 ppm) in any boring. No visual evidence of impacts was observed in the soil core samples. Soil samples were collected from the current water table interface (approximately 10 ft bls) in all soil borings and from the historical water table interface (approximately 15 ft bls) in soil borings that were advanced to investigate the former UST area (AGW-9 and AGW-10) and submitted to the laboratory for the analysis of VOCs.

Soil samples were denoted by their respective boring number (as shown on Figure 2) followed by the depth interval (in ft bls) from which the sample was retrieved. Sample/Core Logs prepared for each soil boring are provided in Appendix B of this RI Report.

3.3 Soil Vapor Investigation

This section of the RI Report discusses the soil vapor investigation that was performed during the RI. The data were used to meet RI objectives and to further develop the CSM for on-site soil vapor. Specific activities performed included the drilling of temporary soil vapor points (exterior and sub-slab) and collection of exterior and sub-slab soil vapor samples.

3.3.1 Temporary Exterior Soil Vapor Points

To characterize on-site soil vapor, a temporary exterior soil vapor point program was developed for the Site, as outlined in the RI/FS Work Plan. Temporary exterior soil vapor points were advanced and soil vapor samples were collected in accordance with the procedures and scope outlined in the RI/FS Work Plan. The temporary exterior soil vapor point sampling activities were conducted in March 2009.

The temporary exterior soil vapor points were advanced to total depths ranging from 5 to 7 ft bls utilizing direct push drilling techniques (Geoprobe®). The soil vapor samples were collected from depths approximately 1 to 2 feet above the water table.

A total of nine (9) temporary exterior soil vapor points (SV-1 through SV-9) were advanced on-site and a total of nine (9) soil vapor samples (not including QA/QC samples) were collected for laboratory analysis (i.e., one soil vapor sample per temporary exterior soil vapor point). Each soil vapor sample was analyzed for VOCs as outlined in the RI/FS Work Plan. A summary of the soil vapor samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the soil vapor analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

Soil vapor samples were denoted by their respective temporary exterior soil vapor point number (as shown on Figure 2) followed by the depth interval (in ft bls) from which the sample was retrieved. Soil Vapor Sample Collection Logs prepared for each temporary exterior soil vapor point are provided in Appendix C of this RI Report.

3.3.2 Ambient Air Sampling

At the request of the NYSDEC in a letter dated February 26, 2009 (i.e., RI/FS Work Plan approval letter), one (1) ambient air sample was collected concurrent with the soil vapor sampling activities. The ambient air sample was collected on March 12, 2009 from a location upwind of the soil vapor sample locations, which was determined to be the northern perimeter/property boundary. The ambient air sample was analyzed for VOCs. A summary of the ambient air sample collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the ambient air analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

The ambient air sample was denoted as AA-1 (see Figure 2). The AA-1 Ambient Air Sample Collection Log is provided in Appendix D of this RI Report.

3.3.3 Temporary Sub-Slab Soil Vapor Points

To characterize sub-slab soil vapor, a temporary sub-slab soil vapor point program was developed for the Site, as outlined in the RI/FS Work Plan. Temporary sub-slab soil vapor points were advanced and sub-slab soil vapor samples were collected in accordance with the procedures and scope outlined in the RI/FS Work Plan. The temporary sub-slab soil vapor point sampling activities were conducted in March 2009.

The temporary sub-slab soil vapor points were advanced to a total depth of approximately 2 inches below the bottom of the floor slab utilizing a manual slide hammer (Geoprobe®).

A total of eight (8) temporary sub-slab soil vapor points (SS-1 through SS-8) were advanced on-site and a total of eight (8) sub-slab soil vapor samples were collected for laboratory analysis (i.e., one sub-slab soil vapor sample per temporary sub-slab soil vapor point). Each sub-slab soil vapor sample was analyzed for VOCs as outlined in the RI/FS Work Plan. A summary of the sub-slab soil vapor samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the sub-slab soil vapor analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

Sub-slab soil vapor samples were denoted by their respective temporary sub-slab soil vapor point number (as shown on Figure 2). Soil Vapor Sample Collection Logs prepared for each temporary sub-slab soil vapor point are provided in Appendix C of this RI Report.

3.4 Groundwater Investigation

This section of the RI Report discusses the groundwater investigation that was performed during the RI. The data were used to meet RI objectives and to further develop the CSM for on-site groundwater. Specific activities performed included the drilling of on-site temporary monitoring wells and collection of groundwater samples, performance of a monitoring well reconnaissance survey, collection of water-level measurements from on-site wells, and collection of groundwater samples from on-site monitoring wells.

3.4.1 Temporary Monitoring Wells

To further characterize on-site groundwater and to augment the existing permanent monitoring well network that is screened below the water table, a temporary monitoring well program was developed for the Site, as outlined in the RI/FS Work Plan. Temporary monitoring wells were advanced and groundwater samples were collected in accordance with the procedures and scope outlined in the RI/FS Work Plan. The temporary monitoring well sampling activities were conducted in March 2009.

The temporary monitoring wells were advanced to total depths ranging from 11 to 55 ft bls utilizing direct push drilling techniques (Geoprobe®). The final total depths of the temporary monitoring wells were determined by the on-site field geologist based on the depth that the water table was encountered in the field.

A total of eleven (11) temporary monitoring wells (AGW-1 through AGW-11) were advanced on-site and a total of thirty-two (32) groundwater samples (not including QA/QC samples) were collected for laboratory analysis. Each groundwater sample was analyzed for TCL VOCs as outlined in the RI/FS Work Plan. A summary of the groundwater samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the groundwater analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

Temporary monitoring well locations AGW-1 through AGW-11, with the exception of AGW-6 and AGW-10, were drilled to depths ranging from 45 to 55 ft bls. Groundwater samples were collected from AGW-1 through AGW-5, AGW-7 through AGW-9, and AGW-11 from the following approximate depths: 1) 1 to 2 ft below the water table (ranging from approximately 9 to 14 ft bls), 2) 29 to 35 ft bls (approximately 20 to 25 ft below the water table and beneath the bottom of the screen interval of monitoring well TRMW-2), and, 3) 45 to 55 ft bls (approximately 35 to 45 ft below the water table and beneath the bottom of the screen intervals of monitoring wells TRMW-2 and TRMW-4). A groundwater sample could not be collected from the 55 ft bls depth interval from AGW-2 due to the low permeability of the formation (i.e., fine-grained soil [laminated sands and silts] that did not yield water) and so a sample was collected from 45 ft bls instead. Additionally, a longer sample interval (i.e., 4-foot long screen interval) was used to collect the deep groundwater sample from AGW-11 due to the low permeability of the formation. Temporary monitoring well locations AGW-6 and AGW-10 were drilled to depths ranging from 11 to 17 ft bls.

Groundwater samples were denoted by their respective temporary monitoring well number (as shown on Figure 2) followed by the depth interval (in ft bls) from which the sample was retrieved.

3.4.2 Monitoring Well Reconnaissance Survey

A monitoring well reconnaissance survey was performed on March 20, 2009 to inspect the integrity of the existing monitoring well network prior to sampling activities. Prior to the RI, the last time that groundwater samples were collected from the monitoring well network was in March 1997. The total well depth and depth to water were measured and recorded during the survey. In addition, observations related to well integrity (e.g., presence of well cap) were recorded during the survey. The monitoring well reconnaissance survey indicated that the monitoring wells were in good condition and could be used for the collection of groundwater samples. Monitoring well construction details are summarized in Table 2.

3.4.3 Water-Level Measurements

One round of water-level measurements was collected on March 23, 2009 from the on-site monitoring well network (i.e., TRMW-1 through TRMW-5) in accordance with the procedures outlined in the RI/FS Work Plan. The water-level measurement data is provided in Table 3. Section 4.2 (Local Hydrogeology) of this RI Report provides a detailed discussion of groundwater flow at the Site.

3.4.4 Monitoring Well Sampling

Groundwater samples were collected on March 23, 2009 from the on-site monitoring well network (i.e., TRMW-1 through TRMW-5) in accordance with the procedures outlined in the RI/FS Work Plan. The groundwater samples were analyzed for TCL VOCs as outlined in the RI/FS Work Plan. A summary of the groundwater samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the groundwater analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

Groundwater samples were denoted by their respective monitoring well number (as shown on Figure 2). Water Sampling Logs are provided in Appendix E.

3.5 Indoor Air Quality Investigation

This section of the RI Report discusses the IAQ investigation that was performed during the RI. The data were used to meet RI objectives and to develop the CSM for on-site indoor air. Specific activities performed included the performance of a partial building survey and chemical inventory and the collection of IAQ samples.

To characterize on-site indoor air, an IAQ sampling program was developed for the Site, as outlined in the Supplemental RI Work Plan. IAQ samples were collected in accordance with the procedures and scope outlined in the Supplemental RI Work Plan. The IAQ sampling activities were conducted during normal HVAC system operating conditions (heating mode at the time of sampling).

A total of nine (9) IAQ samples (IA-1 through IA-9) (not including QA/QC samples) were collected for laboratory analysis. Each IAQ sample was analyzed for VOCs as outlined in the Supplemental RI Work Plan. A summary of the IAQ samples collected for laboratory analysis during the RI along with the constituents analyzed is provided in Table 1 of this RI Report. A discussion of the IAQ analytical results is provided in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

IAQ samples were denoted by their respective IAQ sample number (as shown on Figure 2). Indoor Air Sample Collection Logs are provided in Appendix F of this RI Report.

3.6 Community Air Monitoring Program

In accordance with the Community Air Monitoring Plan (CAMP), prepared in accordance with NYSDEC requirements and contained in the NYSDEC-approved RI/FS Work Plan, real-time community air monitoring was performed and recorded by ARCADIS for VOCs (using a PID) and dust (using a dust monitor). The CAMP data indicated no exceedances of CAMP action levels. The CAMP data are provided in Appendix G of this RI Report.

3.7 Investigation-Derived Waste Disposal

IDW was managed in accordance with the RI/FS Work Plan. Soils from shallow soil borings were placed back into the borehole and clean sand was used to backfill the balance of the borehole to land surface. Disposable soil sample liners, disposable sample tubing, and personal protective equipment (PPE) were discarded as general

trash. Water generated from sampling and decontamination activities was containerized in Department of Transportation (DOT)-approved 55-gallon drums pending analytical results. The groundwater quality data was used to support IDW characterization for disposal purposes. The water was then transported off-site for disposal.

4. Site Physical Setting

Evaluation of the Site physical setting, including degree of geologic stratification and heterogeneities in the unsaturated and saturated zones, hydrogeology, groundwater flow characteristics, and Site-specific aquifer parameters are essential in understanding and evaluating COC fate and transport mechanisms (Section 6) and developing and refining the CSM (Section 7). This section of the RI Report evaluates Site geology and hydrogeology.

The general hydrogeologic framework on-site was defined during the Phase II Investigation (LMS, 1993) and the 1996-1997 Hydrogeologic Investigation (ERM, 1997). Hydrogeologic cross-sections from the Phase II Investigation Report are provided in Appendix H of this RI Report. Groundwater contour maps from the Phase II Investigation Report showing the direction of groundwater flow are provided in Appendix I of this RI Report.

4.1 Local Geology

Bedrock beneath the Site is found at an approximate elevation of 1,200 feet below msl. The Lloyd aquifer, which overlies bedrock, has a surface elevation of approximately 850 feet below msl. The Raritan Clay has a surface elevation of approximately 650 feet below msl. The Magothy aquifer is present from an approximate elevation of mean sea level (i.e., 0 feet msl) to 650 feet below msl. The Upper Glacial aquifer corresponds to the saturated upper part of the highly permeable Pleistocene deposits of sand and gravel that overlie the Magothy aquifer.

Soil borings (described in Section 1.1.3.1.2 of this RI Report) drilled at the Site by LMS indicate that tan sand and gravel deposits (Upper Glacial aquifer) are underlain by laminated sands and silts and the Magothy aquifer, with the upper surface of the laminated sands and silts and the Magothy aquifer encountered from approximately 30 to 35 ft bls (see Appendix H, cross-sections A-A' and B-B'). Minor amounts of fill are also present at the Site (LMS, 1993). Approximately 5 to 10 feet of fill was

encountered in the area near the former dry well (monitoring well TRMW-4 boring) and in the vicinity of monitoring well TRMW-2.

Soil borings drilled at the Site by ARCADIS as part of the RI (AGW-8 through AGW-10) indicate that brown sand and pebble deposits (Upper Glacial aquifer) were encountered. The soil borings were advanced to total depths ranging from 10 to 16 ft bls. Approximately 5 to 10 feet of fill was encountered in the vicinity of the former UST area (i.e., in the AGW-9 soil boring). This fill material was used to backfill the excavation area.

4.2 Local Hydrogeology

The following RI Report subsections discuss groundwater use, groundwater flow, hydraulic gradients, and an estimate of shallow groundwater velocity.

4.2.1 Groundwater Use

There are no groundwater supply wells located on the Site.

4.2.2 Groundwater Flow, Hydraulic Gradients and Groundwater Velocity

The depth to groundwater at the Site is approximately 10 ft bls. Groundwater exists under water-table conditions beneath the Site (i.e., under unconfined conditions). Water-level elevation data collected at the Site in March 2009 indicate a resultant horizontal direction of shallow groundwater flow generally to the south (see Figure 3) and a horizontal hydraulic gradient of approximately 0.001 ft/ft. This is consistent with previous groundwater contour maps (see Appendix I) and the regional horizontal direction of groundwater flow. The water-level elevation data were obtained from monitoring wells that are screened approximately 10 to 25 feet beneath the water table.

Slug testing conducted in the monitoring wells at the Site by LMS during the Phase II Investigation in 1992 indicated an average horizontal hydraulic conductivity (K) of 53 ft/d. The horizontal hydraulic gradient in the shallow groundwater system was approximately 0.001 ft/ft. Based on the hydraulic conductivity and hydraulic gradient data, and assuming an average porosity value of 23 percent, the average horizontal groundwater velocity was approximately 0.23 ft/d (LMS, 1993).

5. Nature and Extent of Constituents in Media

This section of the RI Report discusses in detail the analytical data for samples collected from soil, soil vapor, sub-slab soil vapor, groundwater, and indoor air at the Site. The nature and extent of the COCs are described in the following sections.

5.1 Development of Standards, Criteria, and Guidance

Standards, criteria, and guidance (SCGs) have been identified for the Site that pertain to meeting applicable regulations and RI objectives.

The SCGs for the Site soils are based upon the selection of applicable values from the New York State Codes, Rules and Regulations Title 6 (6 NYCRR) Part 375 Remedial Program Soil Cleanup Objectives (SCOs) and have been applied as follows:

- Industrial SCOs are the applicable SCGs.

No SCGs currently exist for soil vapor; therefore none are presented in this RI Report.

The SCGs for sub-slab soil vapor are based upon the decision matrices from the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006), as modified to add three additional constituents (cis-1,2-dichloroethene [cis-1,2-DCE], 1,1-DCE, and vinyl chloride [VC]) (NYSDOH, 2007) and have been applied as follows:

- Soil Vapor/Indoor Air Matrix 1 – TCE, VC, and carbon tetrachloride (CCl_4)

- Soil Vapor/Indoor Air Matrix 2 – PCE, 1,1,1-TCA, 1,1-DCE, and cis-1,2-DCE

The SCGs for indoor air are based on the air guideline values in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006).

The SCGs for groundwater are based on the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

The list of the Site SCGs is provided in Table 4 of this RI Report.

5.2 Summary of Data Usability

This section of the RI Report provides a summary of RI data quality based on validation performed and usability toward meeting data quality objectives (DQOs) for the Site. Data Usability Summary Reports (DUSRs) are provided in Appendix J.

ARCADIS prepared Data Validation Checklists for the sample data that was collected during the RI. The analytical data underwent an independent review process following NYSDEC DUSR guidelines. Analytical methods utilized were acceptable NYSDEC or EPA methods, as specified in the NYSDEC-approved RI/FS Work Plan. Data validation was conducted by representatives of ARCADIS. NYSDEC ASP Category B deliverables are provided in Appendix K for soil and groundwater analytical samples associated with the RI. Air Toxics, Ltd. Level IV electronic Comprehensive Validation Packages (eCVPs) are provided in Appendix L for soil vapor, sub-slab soil vapor, and indoor air analytical samples associated with the RI.

Five sample delivery groups (SDGs) were associated with the RI soil and groundwater data. The samples were analyzed for VOCs. The data were determined to be acceptable and usable.

Two SDGs were associated with the RI soil vapor data. The samples were analyzed for VOCs. The data were determined to be acceptable and usable with the exception of the SV-4 (6.5-7) soil vapor sample. The final vacuum (i.e., receipt at lab vacuum) of the SV-4 SUMMA® canister was less than 1 inch of mercury (Hg). Based on this receipt vacuum reading, compounds that were not detected above the laboratory reporting limit were qualified as unusable (“R” qualifier).

Two SDGs were associated with the RI sub-slab soil vapor data. The samples were analyzed for VOCs. The data were determined to be acceptable and usable.

One SDG was associated with the RI indoor air data. The samples were analyzed for VOCs. The data were determined to be acceptable and usable.

It is the opinion of the data reviewer that the analytical data generated from samples collected and analyzed as part of the RI Report underwent a thorough data review process in accordance with QAPP requirements. Based on the data validation, the data met DQOs of sufficient quality.

5.3 Nature and Extent of Constituents in Soil

This section of the RI Report provides an evaluation of the nature and extent of constituents in soil. In general, the data obtained from soil sampling met the RI goal of determining if on-site remediated areas (i.e., former UST area) are a potential continuing source(s) of impacts to groundwater and is sufficient for determining the nature and extent of constituents in soil at the Site. A detailed analysis of constituents in soil is presented below.

The soil quality data evaluated and presented in this RI Report were generated from the collection of soil samples as described in Section 3.2. The laboratory analytical results of soil samples are summarized in Table 5 and provided in Appendix K.

The analytical results indicate that all detected constituents were below SCGs. The only constituents that were detected in soil were PCE and toluene; these constituents were detected at trace-level concentrations in both of the soil samples collected from soil boring AGW-9 (i.e., former UST area). Toluene was detected at a trace-level concentration in the AGW-10 (13-15 ft bls) soil sample. No constituents were detected above the laboratory reporting limits in the AGW-10 (8-10 ft bls) soil sample or the soil sample collected from soil boring AGW-8 (i.e., drum storage area).

The soil data collected during the RI, in conjunction with previous investigation data and remediation-related data (i.e., endpoint soil samples collected in 2004), indicate that there are no continuing sources of impacts to groundwater and that additional soil investigation activities are not warranted.

5.4 Nature and Extent of Constituents in Exterior Soil Vapor and Ambient Air

This section of the RI Report provides an evaluation of the nature and extent of constituents in soil vapor. In general, the data obtained from soil vapor sampling met the RI goal of determining the nature and extent of constituents in soil vapor at the Site. A detailed analysis of constituents in soil vapor is presented below.

The soil vapor quality data evaluated and presented in this RI Report were generated from the collection of soil vapor samples as described in Section 3.3. The laboratory analytical results of soil vapor samples collected from temporary exterior soil vapor points are summarized in Table 6 and provided in Appendix L.

Since SCGs for soil vapor do not exist and because numerous individual VOCs were detected, mapping of total VOCs was determined to be less useful than selection of key VOCs to best approximate the distribution of VOCs in soil vapor. An evaluation of the data identified PCE, 1,1,1-TCA, and 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) as the compounds to best approximate the overall distribution of VOCs in soil vapor (based on concentration and frequency of detection); the identification of PCE and 1,1,1-TCA for use in approximating the overall distribution of VOCs in soil vapor was also guided by the fact that they historically are two of the primary constituents detected in groundwater.

The analytical results indicate that PCE was detected in all soil vapor samples at concentrations ranging from 17 micrograms per cubic meter ($\mu g/m^3$) (SV-4 [6.5-7 ft bls]) to 590 $\mu g/m^3$ (SV-5 [4.5-5 ft bls]). The highest PCE concentrations in soil vapor were detected in soil vapor points SV-5 and SV-6, which were located in the vicinity of the former UST area, and in SV-3, which was located along the eastern side of the west building. The chlorinated aliphatic hydrocarbons (CAHs) detected in these soil vapor samples are consistent with CAHs that were detected in groundwater in the former UST area. In addition, PCE was the primary constituent detected in soil in the former UST area prior to and subsequent to remedial activities.

The analytical results indicate that 1,1,1-TCA was detected in the majority of soil vapor samples at concentrations ranging from 2.8 $\mu g/m^3$ (SV-4 [6.5-7 ft bls]) to 260 $\mu g/m^3$ (SV-1 [6.5-7 ft bls]). The highest 1,1,1-TCA concentrations in soil vapor were detected in soil vapor points SV-1 and SV-7, which were located in the vicinity of the former dry well area (where wastewater containing less than 5 percent 1,1,1-TCA was discharged in 1982 and 1983).

The analytical results indicate that Freon 113 was detected in approximately 50 percent of the soil vapor samples at concentrations ranging from 11 $\mu g/m^3$ (SV-4 [6.5-7 ft bls]) to 310 $\mu g/m^3$ (SV-9 [6.5-7 ft bls]). Soil vapor point SV-9 was located adjacent to AGW-11, where Freon 113 was detected in a groundwater sample above its respective SCG.

A number of other constituents (TCE, 1,1-DCE, 1,1-DCA, cis-1,2-DCE, Freons, acetone, 2-butanone, aromatic hydrocarbons, and other VOCs) were also detected in the soil vapor samples (see Table 6).

VOCs in soil vapor are likely transferring to the atmosphere through advective flow and pressure gradients, decreasing near surface soil vapor concentrations, along the

southern and western perimeters/property boundaries where unpaved areas are present.

A number of constituents (Freon 11, Freon 12, chloromethane, acetone, and 2-butanone) were detected at concentrations of 21 µg/m^3 or less in the ambient air sample (AA-1) that was collected concurrent with the soil vapor samples (see Table 6).

5.5 Nature and Extent of Constituents in Sub-Slab Soil Vapor

This section of the RI Report provides an evaluation of the nature and extent of constituents in sub-slab soil vapor. In general, the data obtained from sub-slab soil vapor sampling met the RI goal of determining the nature and extent of constituents in sub-slab soil vapor at the Site. A detailed analysis of constituents in sub-slab soil vapor is presented below.

The sub-slab soil vapor quality data evaluated and presented in this RI Report were generated from the collection of sub-slab soil vapor samples as described in Section 3.3. The laboratory analytical results of sub-slab soil vapor samples collected from temporary sub-slab soil vapor points are summarized in Table 7 and provided in Appendix L. Sub-slab soil vapor analytical results for constituents exceeding SCGs are shown on Figure 4.

The analytical results indicate that TCE, PCE, and 1,1,1-TCA were detected above SCGs. TCE was detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 250 µg/m^3. PCE and 1,1,1-TCA were detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 1,000 µg/m^3.

The analytical results indicate that PCE was detected in all sub-slab soil vapor samples. PCE concentrations ranging from 120 µg/m^3 (SS-6) to 51,000 µg/m^3 (SS-1) were detected beneath the west building; PCE concentrations of 140 µg/m^3 (SS-7) and 150 µg/m^3 (SS-8) were detected beneath the east building. The highest PCE concentrations in sub-slab soil vapor were detected in SS-1 through SS-4, which were located near and to the south of the former UST area. PCE concentrations in sub-slab soil vapor were significantly lower (i.e., <1,000 µg/m^3) in SS-5 and SS-6 (southern portion of west building).

The analytical results indicate that 1,1,1-TCA was detected in all sub-slab soil vapor samples. 1,1,1-TCA concentrations ranging from 10 µg/m^3 (SS-6) to 50,000 µg/m^3

(SS-1) were detected beneath the west building. 1,1,1-TCA concentrations of 180 µg/m^3 (SS-7) and 4.1 µg/m^3 (SS-8) were detected beneath the east building. Consistent with the highest PCE concentrations, the highest 1,1,1-TCA concentrations in sub-slab soil vapor were detected in SS-1 through SS-4. 1,1,1-TCA concentrations in sub-slab soil vapor were significantly lower (i.e., <50 µg/m^3) in SS-5 and SS-6.

The analytical results indicate that TCE was detected in the majority of sub-slab soil vapor samples. TCE concentrations ranging from 31 µg/m^3 (SS-5) to 32,000 µg/m^3 (SS-1) were detected beneath the west building. A TCE concentration of 5.5 µg/m^3 was detected in SS-8 and TCE was not detected above the laboratory reporting limit in SS-7 (beneath the east building). Consistent with the highest PCE and 1,1,1-TCA concentrations, the highest TCE concentrations in sub-slab soil vapor were detected in SS-1 through SS-4. The TCE concentration in sub-slab soil vapor was significantly lower (i.e., <50 µg/m^3) in SS-5 and TCE was not detected above the laboratory reporting limit in SS-6.

As compared to 1,1,1-TCA, PCE, and TCE concentrations, lower-level concentrations of 1,1-DCE and cis-1,2-DCE were detected in the SS-1 sub-slab soil vapor sample; lower-level concentrations of 1,1-DCA were detected in the SS-1 through SS-4 sub-slab soil vapor samples. A number of other constituents (Freons, acetone, 2-butanone, aromatic hydrocarbons, and other VOCs) were also detected in select sub-slab soil vapor samples (see Table 7).

The CAHs detected in the SS-1 through SS-4 sub-slab soil vapor samples are consistent with constituents that were detected in groundwater in the former UST area.

5.6 Nature and Extent of Constituents in Groundwater

This section of the RI Report provides an evaluation of the nature and extent of constituents in groundwater. In general, the data obtained from groundwater sampling (temporary monitoring wells [vertical profile borings (VPBs)] and monitoring wells) met the RI goal of characterizing the shallow groundwater quality on-site and determining the nature and extent of constituents in groundwater at the Site. A detailed analysis of constituents in groundwater is presented below.

The groundwater quality data evaluated and presented in this RI Report were generated from the collection of groundwater samples as described in Section 3.4. The laboratory analytical results of groundwater samples collected from VPBs and monitoring wells are summarized in Tables 8 and 9, respectively, and provided in

Appendix K. Groundwater analytical results for constituents exceeding SCGs are shown on Figure 5.

The analytical results indicate that concentrations of 35 µg/L or less of six VOCs were detected above SCGs in the AGW-9 (10-11 ft bls) temporary monitoring well (VPB) groundwater sample and one constituent was detected above its respective SCG in the AGW-11 (10-11 ft bls) VPB groundwater sample. Both of these groundwater samples were collected just below the water table. Some of the constituents (i.e., CAHs) that were detected above SCGs in the AGW-9 (located in the former UST area northwest of the west building) (10-11 ft bls) groundwater sample are consistent with constituents that were previously detected in groundwater in the former UST area, including 1,1,1-TCA, PCE, and 1,1-DCA. In addition, aromatic hydrocarbons including ethylbenzene, toluene, and xylene were detected above SCGs in the AGW-9 groundwater sample. Freon 113 was detected above its respective SCG in the AGW-11 (located south of the west building and hydraulically downgradient of AGW-9) (10-11 ft bls) groundwater sample. All other detected constituents in the VPB groundwater samples were below SCGs.

The analytical results for the groundwater samples that were collected from the monitoring well network indicate that no constituents were detected above the laboratory reporting limits.

In summary, the data suggest that concentrations of VOCs in groundwater in the vicinity of the former UST area naturally attenuate before reaching the southern perimeter/property boundary. The groundwater data collected during the RI, in conjunction with previous investigation data and the RI soil data, indicate that there are no source-strength groundwater impacts or “source areas” and suggests that there is no groundwater plume. Furthermore, the remediation of former soil impacts has had a beneficial effect on groundwater quality.

5.7 Nature of Constituents in Indoor Air

This section of the RI Report provides an evaluation of the nature of constituents in indoor air. In general, the data obtained from IAQ sampling met the RI goal of characterizing IAQ on-site and determining the nature of constituents in indoor air at the Site. A detailed analysis of constituents in indoor air is presented below.

The IAQ data evaluated and presented in this RI Report were generated from the collection of indoor air samples as described in Section 3.5. The laboratory analytical

results of indoor air samples is summarized in Table 10 and provided in Appendix L. A comparison of co-located indoor air sample and sub-slab soil vapor sample results is provided in Table 11.

The analytical results indicate that TCE and PCE were not detected above SCGs or the laboratory reporting limits. Methylene chloride was detected in one indoor air sample at a concentration below its SCG. TCE, PCE, and methylene chloride are the only compounds that have associated SCGs for indoor air. A number of other constituents (Freons, acetone, 2-butanone, aromatic hydrocarbons, and other VOCs) were detected in IAQ samples (see Table 10) that, with the exception of acetone, were at concentrations less than 25 µg/m^3. Acetone was detected in all IAQ samples and except for location IA-2, was always substantially higher than in the co-located sub-slab soil vapor sample. Use of acetone at the facility would appear to be the reason for this data relationship.

The IAQ data collected during the RI, in conjunction with the sub-slab soil vapor data collected during the RI, indicate that the vapor intrusion pathway is not complete. Factors that may be responsible for the incomplete vapor intrusion pathway include the operation of the HVAC system (the building interior is under positive pressure) and the integrity of the floor slab, which is typically approximately six inches thick.

5.8 Quality Assurance/Quality Control Samples

This section of the RI Report evaluates the analysis of QA/QC samples collected during the RI. The results of QA/QC sample analysis are provided in Table 12. The data were incorporated into the data usability assessment performed by the Data Validator for the RI. The results show no detections that adversely affected the acceptability of the results of samples obtained during the RI.

5.9 Tentatively Identified Compounds

This section of the RI Report evaluates the results of analysis for TICs in soil and groundwater samples collected during the RI. The results of TIC sample analysis for soil and groundwater are provided in Tables 13 and 14, respectively.

Two TICs were identified in the AGW-10 (13-15 ft bls) soil sample. TICs were not identified in any of the other soil samples.

TICs were identified in select groundwater samples that were collected from VPBs situated along the southern perimeter/property boundary (AGW-1, AGW-2, AGW-7, and AGW-11), the drum storage area (AGW-8), and the former UST area (AGW-9).

Eleven TICs were identified in the AGW-9 (10-11 ft bls) groundwater sample; the TICs appear to be compounds primarily associated with petroleum products.

Nine TICs were identified in the AGW-9 (48-49 ft bls) groundwater sample; the TICs could be associated with off-site impacts that may have migrated onto the Site at depth (e.g., may be related to a former recharge basin that was located north [upgradient] of the Site).

The two TICs identified in the AGW-11 (10-11 ft bls) groundwater sample and the one TIC identified in the AGW-2 (44-45 ft bls) groundwater sample appear to be related to the detection of Freon 113, which was the only constituent in the groundwater sample that exceeded it respective SCG; one of the TICs, ethane, 1,2-dichloro-1,1,2-trifluoro-, is a Freon 123 isomer.

6. Fate and Transport

This section of the RI report provides a discussion of the environmental processes that control the movement and distribution of the COCs related to the Site. Site COCs were identified in Section 5 (Nature and Extent of Constituents in Media) of this RI Report.

In general, after a chemical is released to the environment, it may be transported, transformed physically, chemically, or biologically, or accumulated in one or more media. The evaluation of the fate and transport of the COCs identified for the Site will aid in predicting future potential risks.

6.1 Constituents of Concern

As described in Section 5 (Nature and Extent of Constituents in Media), COCs were selected based on comparison (i.e., exceedance) to SCGs (as applicable). COCs have further been classified based on media affected, location, concentration, and distribution. The following COCs were identified in one or more media:

- Chlorinated Ethenes and Ethanes

  - PCE
  - TCE
  - 1,1,1-TCA
  - 1,1-DCA
- Freons
  - Freon 113
- Aromatic Hydrocarbons
  - Toluene
  - Ethylbenzene
  - Xylenes

6.2 Physical and Chemical Properties

Table 15 summarizes the chemical properties relevant to fate and transport analyses of COCs exceeding SCGs in one or more media. Definitions of general chemical properties are provided below.

- The organic carbon partition coefficient, usually expressed as a logarithmic value (log K_{oc}), provides a measure of the extent of chemical partitioning between organic carbon and water at equilibrium. The higher the log K_{oc}, the more likely a chemical is to bind to soil rather than remain dissolved in water.

- The octanol-water partition coefficient, usually expressed as a logarithmic value (log K_{ow}), provides a measure of the extent of chemical partitioning between water and octanol at equilibrium. The higher the log K_{ow}, the more likely a chemical is to partition to octanol rather than to remain in water. Octanol is used as a surrogate for lipids, and log K_{ow} is used to predict bioconcentration in living organisms (i.e., plants and animals).

- The solubility of a chemical is an upper limit on its dissolved concentration (i.e., saturated concentration) in pure water at a specific temperature (usually 25 ºC). Aqueous concentrations in excess of solubility may indicate sorption onto sediments, the presence of solubilizing chemicals such as solvents, or the presence of a non-aqueous phase liquid (NAPL). Compounds with high solubilities tend to desorb from soils and sediments (i.e., they have low K_{oc} values), are less likely to volatilize from water, and are susceptible to biodegradation. Conversely, compounds with low solubilities tend to adsorb onto soils and sediments (i.e., they have high K_{oc} values), volatilize more readily from water, and bioconcentrate in aquatic organisms.

- Henry's Law constant provides a measure of the extent of chemical partitioning between air and water at equilibrium (i.e., relative volatility of a substance). The higher the Henry's Law constant, the more likely a chemical is to volatilize rather than to remain in water.

- Vapor pressure is the pressure exerted by a chemical vapor in equilibrium with its solid or liquid form at a specific temperature. It is used to calculate the rate of volatilization of a pure substance from a surface or in estimating a Henry's Law constant for chemicals with low water solubility. The higher the vapor pressure, the more likely a chemical is to exist in a gaseous state.

6.3 Constituent Fate and Transport Processes

Various fate and transport processes are possible for COCs; a discussion of these processes for COCs identified during the RI for the Site is provided in the following sections of the RI Report.

6.3.1 Sorption/Precipitation

Sorption and precipitation are chemical processes that retard or prohibit chemical constituent migration in the subsurface. Sorption refers collectively to those processes (adsorption and absorption) where constituents chemically attach to soil or sediment. Precipitation is a chemical reaction in which the dissolved constituent reacts with another dissolved species and forms an insoluble product (or solid).

For VOCs, solubility and adsorption to naturally occurring organic matter in soil or sediment are the dominant processes affecting mobility and migration. The mobility of VOCs in groundwater may be evaluated by examining their aqueous solubilities and

partition coefficients (see Table 15). In general, the higher the solubility, the greater the mobility, and the higher the log K_{oc} and log K_{ow} values, the lower the aqueous mobility and the higher the affinity for organic matter in the soil.

6.3.2 Volatilization

Volatilization refers to the transfer of constituents from the dissolved phase or liquid state to the gaseous (vapor) state. For example, volatilization can occur directly from a spill or leak, from the surface of uncovered impoundments with water containing VOCs, from VOCs in water at or near the water table, or from VOCs in groundwater.

Volatilization is assessed by examining the Henry's Law constant and vapor pressure (see Table 15) for each constituent. Henry's Law constants provide a semi-quantitative rate at which a constituent will volatilize from soil and/or water. If the Henry's Law constant is less than 10^{-7} atmospheres per meter cubed per mole (atm-m^3/mol), the substance has a low volatility; if the Henry's Law constant is greater than 10^{-7} atm-m^3/mol but less than 10^{-5} atm-m^3/mol, the substance will volatilize slowly. Values of Henry's Law constant between 10^{-5} atm-m^3/mol and 10^{-3} atm-m^3/mol indicate volatilization will proceed at a moderate rate. Values of Henry's Law constant exceeding 10^{-3} atm-m^3/mol indicate volatilization will proceed rapidly. The higher the vapor pressure, the more easily the constituent will volatilize.

6.3.3 Degradation/Transformation

Degradation is a chemical or biochemical process that removes or transforms organic constituents. Chemical degradation usually involves hydrolysis or oxidation, while biochemical processes (biodegradation) can involve oxidation or reduction depending on whether aerobic (oxygen) or anaerobic (without oxygen) conditions are present. In general, aerobic processes are faster than anaerobic processes. The wide range of environmental conditions that control degradation processes makes it infeasible to characterize the degradability of a constituent with a measured value. In general, hydrolysis and oxidation reactions in groundwater are slow compared with transformations mediated by biochemical processes.

In general, chlorinated ethenes and ethanes have been found to undergo either biotic or abiotic degradation (i.e., the sequential removal of chlorine atoms from the molecule). For example, several studies have found that PCE and TCE can be transformed under anaerobic conditions by sequential reductive dechlorination to

produce DCE, vinyl chloride, and in some instances ethene or ethane. As an example, the anaerobic transformation pathway for PCE is shown below.

PCE
(C_2Cl_4)
↓
TCE
(C_2HCl_3)
↓
1,1- or 1,2-DCE
($C_2H_2Cl_2$)
↓
Vinyl Chloride
(C_2H_3Cl)
↓
Ethene or Ethane
(C_2H_4) (C_2H_6)

Environmental conditions influencing the type and rate of the preceding reactions include pH, temperature, state of oxidation or reduction, microorganisms present, and types of other chemicals present. Reaction kinetics also play an important role in the determination of the abiotic and biotic fate of VOCs.

The following subsections of the RI Report describe the various processes that can typically act to transform/degrade various forms/species of natural and synthetic chemicals.

6.3.3.1 Oxidation/Reduction Reactions

Oxidation-reduction (redox) chemistry deals with the abundance of electrons in a particular system. Oxidized or oxidizing conditions imply a system or substance with a low concentration of electrons; reduced or reducing conditions imply a system or substance with a high concentration of electrons.

Oxidizing conditions most commonly occur in shallow parts of uncontaminated aquifer systems. Reducing conditions commonly occur in areas that are isolated from oxidizing agents like oxygen and where biologic activity has taken place. Such conditions occur most commonly at a depth in groundwater systems exhibiting the presence of organic constituents that are readily biodegraded.

6.3.3.2 Acid/Base Reactions (Hydrolysis)

Acid/base chemistry relates to the abundance of hydrogen ions in a system. Acidic conditions imply a system with a high concentration of hydrogen ions (H^+) and a low concentration of hydroxide ions (OH^-); basic conditions imply the opposite. Hydrolysis is a chemical transformation in which an organic molecule, RX, reacts with water, resulting in the formation of a new covalent bond with OH and cleavage of the covalent bond with X (the leaving group) in the original molecule (Suthersan, 1997). The net reaction is the displacement of X by OH^-:

$$RX + H_2O \bullet \quad ROH + H^+ + X^-$$

Hydrolysis can occur when biodegradation cannot, and can result in byproducts susceptible to biodegradation (Suthersan, 1997). In this manner, hydrolysis can be a significant process affecting the fate and transport of various contaminants.

6.3.4 Advection

Advection describes the process of COC migration due to the average bulk movement of groundwater, and typically is the most important factor governing the transport of COCs in groundwater. Advection defines the direction and rate of travel of a plume's center of mass. The advective transport term is computed using velocities determined by solving the groundwater flow equation, which is a function of hydraulic conductivity, hydraulic gradient, and porosity (see Section 4.2 – Local Hydrogeology).

6.3.5 Hydrodynamic Dispersion

Hydrodynamic dispersion describes the spread of COCs around an average groundwater flow path, beyond the region they would normally occupy due to advection alone. Hydrodynamic dispersion is the sum of two processes: mechanical dispersion and molecular diffusion. Mechanical dispersion results from mixing that occurs as a consequence of local variations in groundwater velocity and the aquifer's matrix. Molecular diffusion results from variations in solute concentrations within the groundwater system. The molecular diffusion effect is generally secondary and negligible compared to the mechanical dispersion effect (Zheng, 1990).

6.4 Environmental Fate

The media of concern at the Site are sub-slab soil vapor and groundwater, and the COCs are principally chlorinated and aromatic VOCs. In general, the VOCs detected in groundwater during the RI are relatively mobile in groundwater having a low to moderate solubility and/or low K_{oc} and K_{ow} values. The environmental fate processes of the specific Site-related COCs are discussed in the following sections.

6.4.1 Chlorinated Ethenes and Ethanes

Chlorinated ethene COCs in groundwater include PCE. As indicated in Section 5, PCE was the only chlorinated ethene detected above its respective SCG. Other chlorinated ethenes (TCE and cis-1,2-DCE) were detected in a limited number of groundwater samples, but at concentrations below their respective SCGs; therefore, TCE and cis-1,2-DCE are not identified as COCs in groundwater.

Chlorinated ethane COCs in groundwater include 1,1,1-TCA and 1,1-DCA. As indicated in Section 5, 1,1,1-TCA and 1,1-DCA were detected above their respective SCGs.

In general, chlorinated ethenes and ethanes are considered to have medium-to-high mobility in groundwater, depending on their degree of chlorination. Sorption to soils is expected to be relatively minor; thus, transport in groundwater away from COC source areas is expected to be the dominant transport pathway.

The dominant degradation processes for chlorinated ethenes and ethanes is hydrolysis and biodegradation. Based on the presence of daughter VOCs (i.e., TCE and cis-1,2-DCE), a number of biodegradation processes may have occurred or may be occurring at the Site. An environment with a lack of dissolved oxygen would have established conditions for the anaerobic biodegradation of PCE resulting in the formation of the various degradation products, including TCE and cis-1,2-DCE. Degradation of these constituents may be occurring along the groundwater flow path (i.e., between the former UST area [AGW-9 location] and the southern perimeter/property boundary), as evidenced by constituent concentrations in downgradient VPB locations AGW-2 and AGW-11 (i.e., COC concentrations below SCGs [with the exception of Freon 113 in the AGW-11 water table sample, which was not detected hydraulically upgradient at AGW-9]).

Chlorinated ethene COCs in sub-slab soil vapor include PCE and TCE. As indicated in Section 5, PCE and TCE were detected above their respective SCGs. Other chlorinated ethenes (1,1-DCE and cis-1,2-DCE) were detected in the SS-1 sub-slab soil vapor sample (i.e., in the vicinity of the former UST area).

Chlorinated ethane COCs in sub-slab soil vapor include 1,1,1-TCA. As indicated in Section 5, 1,1,1-TCA was detected above its respective SCG. 1,1-DCA was detected in the SS-1 through SS-4 sub-slab soil vapor samples; SCGs do not exist for this constituent, and therefore, 1,1,-DCA is not identified as a COC in sub-slab soil vapor.

A more detailed discussion of the fate of primary chlorinated VOCs is presented in the following subsections.

6.4.1.1 Tetrachloroethene

PCE was identified as a COC in groundwater and sub-slab soil vapor. PCE has a relatively low water solubility and volatilizes rapidly from water (ATSDR, 1997a). Volatilization rates for PCE from soil are much less than those from water. Experimentally measured soil sorption coefficients based on organic carbon content (K_{oc}) for PCE are indicative of medium-to-high mobility in soil. Biomagnification in the aquatic food chain does not appear to be significant (ATSDR, 1997a).

6.4.1.2 Trichloroethene

TCE was identified as a COC in sub-slab soil vapor. TCE is moderately soluble in water, although it partitions rapidly to the atmosphere (ATSDR, 1997b). Volatilization of TCE from soil is slower than it is from water. Sorption of TCE to the surfaces of soil particles is inversely dependent on soil moisture content since polar water molecules may out-compete the non-polar vapor phase of TCE resulting in a greater percentage of TCE in the vapor phase. Biomagnification in the aquatic food chain does not appear to be significant (ATSDR, 1997b).

6.4.1.3 1,1,1-Trichloroethane

1,1,1-TCA was identified as a COC in groundwater and sub-slab soil vapor. 1,1,1-TCA has a moderate water solublility and volatilizes readily from water (ATSDR, 2006). Based on experimental values for the log K_{ow} and log K_{oc}, 1,1,1-TCA would be expected to show high mobility in soil and readily leach into groundwater.

6.4.1.4 1,1-Dichloroethane

1,1-DCA was identified as a COC in groundwater. 1,1-DCA volatilizes rapidly from water (ATSDR, 1990). 1,1-DCA has a moderate water solubility and does not sorb to soil particulates unless the organic content of the soil is high.

6.4.2 Aromatic Hydrocarbons

Toluene, ethylbenzene, and xylenes (ortho-, meta-, and para-) belong to the group of constituents known as aromatic hydrocarbons. Aromatic hydrocarbons all have a molecular skeleton that contains the benzene ring as the parent structure.

A more detailed discussion of the fate of toluene, ethylbenzene, and xylene constituents is presented in the following subsections.

6.4.2.1 Toluene

Toluene was identified as a COC in groundwater. The majority of toluene released to the environment partitions to air, although rates of volatilization from soils depends on temperature, humidity, and soil type (ATSDR, 2000). Toluene is moderately soluble in water. Transport of toluene from soil to groundwater depends on the degree of adsorption to soil, which is mediated by the presence of organic matter. Toluene will be readily leached from soils with low organic content. Toluene can be biodegraded fairly easily (either aerobically or anaerobically). Oxidation reactions are important elements in the biodegradation of toluene. Degradation of toluene in water occurs primarily by microbial action. The metabolism of toluene limits its biomagnification in the food chain (ATSDR, 2000).

6.4.2.2 Ethylbenzene

Ethylbenzene was identified as a COC in groundwater. Ethylbenzene has a high vapor pressure and will partition into the atmosphere from surface soils and surface water; subsurface soil infiltration will also occur. This chemical has a relatively high mobility in soils because sorption is not significant enough to prevent migration. Ethylbenzene will leach into groundwater, particularly in soils with low organic carbon content. Significant bioaccumulation does not occur in aquatic food chains. In soils, aerobic soil microbes are responsible for biodegradation (ATSDR, 2007a).

6.4.2.3 Xylenes

Xylenes were identified as a COC in groundwater. Xylenes are highly volatile and readily partition into the atmosphere from surface water. In soils, xylenes tend to adsorb to organic matter, and will leach into groundwater from subsurface soils with low organic carbon content. Volatilization and photo-oxidation are the primary removal mechanisms in surface soil and surface water. Biodegradation is the primary removal mechanism in subsurface soils (ATSDR, 2007b).

6.5 Transport Mechanisms

Transport mechanisms are physical processes governing the movement of constituents from points of origin (i.e., sources). The primary transport mechanisms for COCs are: leaching from soils in source areas to groundwater, volatilization from source areas and shallow groundwater to the soil vapor/atmosphere, and advective groundwater movement. In groundwater, the subsurface lithology and structure and local pumpage and recharge, are the primary influences on the movement of groundwater.

7. Conceptual Site Model

This section of the RI Report develops and discusses the CSM for the Site. Previous sections of the RI Report summarized relevant Site conditions, consisting of the Site history and usage, geology and hydrogeology (local and regional), and distribution of COCs in the environment (i.e., quality of soil, soil vapor, sub-slab soil vapor, groundwater, and indoor air). These sections included a discussion of current conditions that was illustrated with figures, as appropriate. The CSM presented herein relates current conditions to the former areas of concern (AOCs).

The purpose of the CSM is to more specifically explain the source(s) of COCs and the mode(s) of transport of COCs in and between media (i.e., soil, soil vapor, sub-slab soil vapor, groundwater, and indoor air) (a general discussion of fate and transport mechanisms is provided in Section 6 [Fate and Transport]). The discussion below also considers the strength of the conclusions reached, as related to the occurrence and migration of COCs, from the data. By the end of this section it should be understood, to the extent it can be known, how and why COCs entered the soil, soil vapor, sub-slab soil vapor, and groundwater system and where COCs will migrate if left unabated. Key questions that were considered when preparing the CSM for the Site are as follows:

- By what means were COCs released at the Site?
- Is there a single source of COCs or are there multiple sources?
- Is the source(s) historical or continuing? If continuing, by what mechanism(s)?
- Is the vadose zone affected by COCs?
- Is there evidence of an off-Site source(s)?
- How have COCs in groundwater and soil vapor moved historically versus currently observed patterns?
- What is the likely future migration of COCs in soil, soil vapor, sub-slab soil vapor, and groundwater?

During the development of the CSM, an assessment of data gaps was made.

7.1 Presentation of Conceptual Site Model

VOCs are present above SCGs (see Section 5 for details) in sub-slab soil vapor and groundwater.

VOCs were released at some point in the past to soil and groundwater in the former UST area and former dry well area. VOCs in soil in the former UST area and former dry well area were remediated and the RI determined that there is no continuing source of VOCs to groundwater. The following lines of evidence support the conclusion that there is not a continuing source of VOCs to groundwater:

1. VOC concentrations were detected in soil in the former UST area that are well below SCGs.

2. VOC concentrations in groundwater that are slightly above SCGs are present only in the vicinity of the former UST area (with the exception of Freon 113 in the AGW-11 water-table sample).

VOCs in groundwater in the vicinity of the former UST area are degrading/attenuating. Groundwater VOC concentrations are below SCGs at locations downgradient of the

former UST area. Based on the RI data, it is not expected that these VOCs will migrate off site.

Freon 113 was detected in groundwater at a concentration above its respective SCG at the AGW-11 location, which was located approximately 30 feet upgradient of the southern perimeter/property boundary. It is believed that Freon 113 was previously used at the Site. The exact release mechanism for Freon 113 is not known. Freon 113 was only detected at the AGW-2 and AGW-11 locations.

The primary source of VOCs in sub-slab soil vapor was VOCs in soil in the former UST area (prior to remediation) as described in Section 5, with a lesser contribution from VOCs in shallow groundwater. VOCs in sub-slab soil vapor underlying the west building are primarily derived from lateral diffusion from the former soil VOC source area (i.e., former UST area). This conclusion is supported by data that indicates sub-slab soil vapor VOC concentrations are highest closest to the former soil VOC source area and decrease with increasing distance from the former soil VOC source area. VOCs in sub-slab soil vapor are trapped beneath the building and are not expected to migrate laterally away from the building due to the presence of footings that are approximately 10 feet deep.

8. Human Health Exposure Assessment

In accordance with DER-10 (NYSDEC, 2002), a qualitative exposure assessment was performed and a Human Health Exposure Assessment (HHEA) Report was prepared. The HHEA Report is provided as Appendix M of this RI Report. The HHEA identified constituents of potential concern (COPCs), identified potentially complete exposure pathways, and evaluated the potential for exposure of human receptors to Site-related COPCs assuming no further remedial actions are conducted.

Site workers are not currently exposed to soil or groundwater and are not expected to be exposed in the future. COPCs were identified for sub-slab soil vapor (see HHEA Report); however, migration into the buildings is not occurring under current conditions as evidenced by indoor air sample results, which indicate that sub-slab soil vapor COPCs have not been detected in the indoor air samples. Based on this information, the vapor intrusion pathway is considered incomplete under current conditions. Future exposures are also considered incomplete under current conditions.

Construction workers may be exposed to surface and subsurface soil at the Site during future intrusive activities. However, the analytical data for the soil samples indicate that

the concentrations of all constituents are below SCGs. In the absence of COPCs, the soil exposure pathway is incomplete. Construction workers are not expected to be exposed to groundwater during future intrusive activities at the Site. All current buildings are slab on grade and all future buildings are also expected to be constructed in the same manner. Therefore, the groundwater exposure pathway is incomplete under current conditions and will remain incomplete in the future for the construction worker.

Utility workers repairing or servicing equipment at the Site could have limited contact with Site-related constituents in surface and subsurface soils. However, the analytical data for soil samples indicate that the concentrations of all constituents are below SCGs. In the absence of COPCs, the soil exposure pathway is incomplete. It is not likely that utility work will require excavation or intrusive activities to the depth of groundwater at the Site (approximately 10 ft bls). Therefore, the groundwater exposure pathway is incomplete under current conditions and will remain incomplete in the future for the utility worker.

One groundwater sample collected near the southern perimeter/property boundary of the Site had a reported concentration for one Site-related constituent (Freon 113) above its SCG. All nearby residents use municipal water for potable purposes. As a result, the groundwater pathway is incomplete under current conditions and will remain incomplete in the future for off-site residents.

Off-site migration of soil vapor is also not considered to be a complete exposure pathway for nearby residents. Although residential structures are located approximately 100 feet from the southern and western perimeters/property boundaries, no COPCs were identified in exterior soil vapor (see HHEA Report).

The HHEA did not identify any complete pathways under current or future land use scenarios. All soil and groundwater exposure pathways are considered incomplete either because no COPCs were identified or there is no potential for contact. Similarly, the vapor intrusion pathway is currently considered incomplete as no COPCs were identified in indoor air based on the RI sampling and current conditions. These data indicate that the current floor system and operation of the HVAC system is adequately preventing migration of VOCs from the subsurface into indoor air. As long as the current conditions are maintained, no exposure pathways are considered complete and no further action is necessary at the Site.

9. Findings and Conclusions

This section of the RI Report summarizes the findings of the RI and presents the conclusions, based on the data presented in prior sections of this RI Report.

9.1 Geology/Hydrogeology

- The Site subsurface unsaturated zone deposits consist of localized areas of fill material between 5 and 10 ft in thickness underlain primarily by glacial sand deposits.

- The localized areas of fill material were encountered during the Phase II Investigation in the area near the former dry well (monitoring well TRMW-4 boring) and in the vicinity of monitoring well TRMW-2, and during the RI in the vicinity of the former UST area (i.e., in the AGW-9 soil boring).

- The Site unsaturated zone glacial (non-fill) lithology consists of sands of varying grain size with pebbles.

- The Site subsurface saturated zone deposits consist of sand and gravel (Upper Glacial aquifer), which is underlain by laminated sands and silts and the Magothy aquifer.

- There are no groundwater supply wells located at the Site.

- Beneath the Site, groundwater exists under water-table conditions and historically varies from approximately 10 to 15 ft bls. The shallow Site groundwater flow direction is generally to the south (consistent with regional flow).

- The average shallow horizontal groundwater velocity is approximately 0.23 ft/d.

9.2 Nature and Extent of Constituents in Media

9.2.1 Soil

- All detected constituents (PCE and toluene) in soil were below SCGs.

- The soil data collected during the RI, in conjunction with previous investigation data and remediation-related data (i.e., endpoint soil samples collected in 2004),

indicate that there are no continuing sources of impacts to groundwater and that additional soil investigation activities are not warranted.

9.2.2 Soil Vapor

- PCE, 1,1,1-TCA, and Freon 113 were detected in soil vapor and were selected as the compounds to best approximate the overall distribution of VOCs in soil vapor. The highest concentrations of PCE, 1,1,1-TCA, and Freon 113 were 590 µg/m^3, 260 µg/m^3, and 310 µg/m^3 respectively.

- The highest PCE concentrations in soil vapor were detected in soil vapor points SV-5 (590 µg/m^3) and SV-6 (340 µg/m^3), which were located in the vicinity of the former UST area.

- The highest 1,1,1-TCA concentrations in soil vapor were detected in soil vapor points SV-1 (260 µg/m^3) and SV-7 (110 µg/m^3), which were located in the vicinity of the former dry well area (where wastewater containing less than 5 percent 1,1,1-TCA was discharged in 1982 and 1983).

- The highest Freon 113 concentration in soil vapor was detected in soil vapor point SV-9 (310 µg/m^3), which was located adjacent to AGW-11, where Freon 113 was detected in a groundwater sample above its respective SCG.

- VOCs in soil vapor are likely transferring to the atmosphere through advective flow and pressure gradients, decreasing near surface soil vapor concentrations, along the southern and western perimeters/property boundaries where unpaved areas are present.

9.2.3 Sub-Slab Soil Vapor

- PCE, 1,1,1-TCA, and TCE were detected in sub-slab soil vapor above SCGs. PCE and 1,1,1-TCA were detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 1,000 µg/m^3. TCE was detected in sub-slab soil vapor beneath the northern portion of the west building at concentrations above 250 µg/m^3.

- The highest PCE concentrations in sub-slab soil vapor were detected in SS-1 (51,000 µg/m^3) through SS-4 (8,800 µg/m^3), which were located near and to the south of the former UST area. PCE concentrations in sub-slab soil vapor were

significantly lower (i.e., <1,000 µg/m^3) in SS-5 and SS-6 (southern portion of west building).

- Consistent with the highest PCE concentrations, the highest 1,1,1-TCA concentrations in sub-slab soil vapor were detected in SS-1 (50,000 µg/m^3) through SS-4 (3,400 µg/m^3). 1,1,1-TCA concentrations in sub-slab soil vapor were significantly lower (i.e., <50 µg/m^3) in SS-5 and SS-6.

- Consistent with the highest PCE and 1,1,1-TCA concentrations, the highest TCE concentrations in sub-slab soil vapor were detected in SS-1 (32,000 µg/m^3) through SS-4 (580 µg/m^3). The TCE concentration in sub-slab soil vapor was significantly lower (i.e., <50 µg/m^3) in SS-5 and TCE was not detected above the laboratory reporting limit in SS-6.

- PCE concentrations of 140 µg/m^3 (SS-7) and 150 µg/m^3 (SS-8) were detected beneath the east building. 1,1,1-TCA concentrations of 180 µg/m^3 and 4.1 µg/m^3 were detected in SS-7 and SS-8, respectively. A TCE concentration of 5.5 µg/m^3 was detected in SS-8 and TCE was not detected above the laboratory reporting limit in SS-7.

9.2.4 Groundwater

- A number of VOCs were detected in shallow groundwater above SCGs at the AGW-9 (10-11 ft bls) and AGW-11 (10-11 ft bls) temporary monitoring well (VPB) locations. Both of these groundwater samples were collected just below the water table. At all other VPB locations all VOC detections were below SCGs or not detected above the laboratory reporting limit.

- No constituents were detected above the laboratory reporting limits in the groundwater samples that were collected from the monitoring well network.

- Concentrations of VOCs in groundwater in the vicinity of the former UST area naturally attenuate before reaching the southern perimeter/property boundary. Based on the RI data, it is not expected that these VOCs will migrate off site.

- The groundwater data collected during the RI, in conjunction with previous investigation data and the RI soil data, indicate that there are no source-strength groundwater impacts or “source areas” and suggests that there is no groundwater

plume. Furthermore, the remediation of former soil impacts has had a beneficial effect on groundwater quality.

9.2.5 Indoor Air

- TCE and PCE were not detected above SCGs or the laboratory reporting limits. Methylene chloride was detected in one indoor air sample at a concentration below its SCG. TCE, PCE, and methylene chloride are the only compounds that have associated SCGs for indoor air.

- The IAQ data collected during the RI, in conjunction with the sub-slab soil vapor data collected during the RI, indicate that the vapor intrusion pathway is not complete. Factors that may be responsible for the incomplete vapor intrusion pathway include the operation of the HVAC system (the building interior is under positive pressure) and the integrity of the floor slab, which is typically approximately six inches thick.

9.3 Fate and Transport

- COCs were selected based on comparison (i.e., exceedance) to SCGs (as applicable). The following COCs were identified in one or more media:
  - PCE
  - TCE
  - 1,1,1-TCA
  - 1,1-DCA
  - Freon 113
  - Toluene
  - Ethylbenzene
  - Xylenes

- The media of concern are sub-slab soil vapor and groundwater and the COCs are primarily chlorinated and aromatic VOCs. In general, the VOCs detected in groundwater during the RI are relatively mobile in groundwater having a low to moderate solubility and/or low K_{oc} and K_{ow} values.

- Based on the presence of daughter VOCs (i.e., TCE and cis-1,2-DCE) in groundwater, a number of biodegradation processes may have occurred or may be occurring at the Site. An environment with a lack of dissolved oxygen would have established conditions for the anaerobic biodegradation of PCE resulting in the formation of the various degradation products, including TCE and cis-1,2-DCE. Degradation of these constituents may be occurring along the groundwater flow path (i.e., between the former UST area [AGW-9 location] and the southern perimeter/property boundary), as evidenced by constituent concentrations in downgradient VPB locations AGW-2 and AGW-11 (i.e., COC concentrations below SCGs [with the exception of Freon 113 in the AGW-11 water-table sample, which was not detected hydraulically upgradient at AGW-9]).

9.4 Conceptual Site Model

- VOCs were released at some point in the past to soil and groundwater in the former UST area and former dry well area. VOCs in soil in the former UST area and former dry well area were remediated and there is no continuing source of VOCs to groundwater. VOC concentrations were detected in soil in the former UST area that are well below SCGs. VOC concentrations in groundwater that are slightly above SCGs are present only in the vicinity of the former UST area (with the exception of Freon 113 in the AGW-11 water-table sample).

- VOCs in groundwater in the vicinity of the former UST area are degrading/attenuating. Groundwater VOC concentrations are below SCGs at locations downgradient of the former UST area. Based on the RI data, it is not expected that these VOCs will migrate off site.

- Freon 113 was detected in groundwater at a concentration above its respective SCG at the AGW-11 location, which was located approximately 30 feet upgradient of the southern perimeter/property boundary. It is believed that Freon 113 was previously used at the Site. The exact release mechanism for Freon 113 is not known. Freon 113 was only detected at the AGW-2 and AGW-11 locations.

- The primary source of VOCs in sub-slab soil vapor was VOCs in soil in the former UST area (prior to remediation), with a lesser contribution from VOCs in shallow groundwater. VOCs in sub-slab soil vapor underlying the west building are primarily derived from lateral diffusion from the former soil VOC source area (i.e., former UST area). This conclusion is supported by data that indicates sub-slab soil vapor VOC concentrations are highest closest to the former soil VOC source area and decrease with increasing distance from the former soil VOC source area. VOCs in sub-slab soil vapor are trapped beneath the building and are not expected to migrate laterally away from the building due to the presence of footings that are approximately 10 feet deep.

10. Recommendations

Based on the conclusions provided in this RI Report, ARCADIS recommends the following:

- Install two (2) new permanent monitoring wells (i.e., water-table wells) at the AGW-9 and AGW-11 locations to confirm natural attenuation of VOC concentrations over time.

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Table 1. Summary of Remedial Investigation Samples, Target Rock Site, East Farmingdale, New York.

Location Identification	Drilling/Sampling Method[1]	Completed Total Depth (ft bls)	Completed Soil Sampling Intervals (ft bls)	Completed Soil Laboratory Analysis[2]	Completed Soil Vapor/Air Sampling Intervals (ft bls)	Completed Soil Vapor/Air Laboratory Analysis[2]	Completed Groundwater Sampling Intervals (ft bls)	Completed Groundwater Laboratory Analysis[2]
MEDIA: SOIL								
Soil Borings								
AGW-8	DPT/MC	10	7 - 9	VOC	--	--	--	--
AGW-9	DPT/MC	16	7.5 - 9.5, 13 - 15	VOC	--	--	--	--
AGW-10	DPT/MC	16	8 - 10, 13 - 15	VOC	--	--	--	--
MEDIA: SOIL VAPOR								
Temporary Exterior Soil Vapor Points								
SV-1	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-2	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-3	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-4	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-5	DPT/SUMMA®	5	--	--	4.5 - 5	VOC	--	--
SV-6	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-7	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-8	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
SV-9	DPT/SUMMA®	7	--	--	6.5 - 7	VOC	--	--
Temporary Sub-Slab Soil Vapor Points								
SS-1	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-2	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-3	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-4	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-5	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-6	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-7	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
SS-8	DPT/SUMMA®	--[3]	--	--	--[3]	VOC	--	--
MEDIA: AIR								
Ambient Air Samples								
AA-1	--/SUMMA®	--	--	--	Ambient Air	VOC	--	--
Indoor Air Samples								
IA-1	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-2	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-3	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-4	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-5	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-6	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-7	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-8	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--
IA-9	--/SUMMA®	--	--	--	Indoor Air	VOC	--	--

See footnotes on last page.

Table 1. Summary of Remedial Investigation Samples, Target Rock Site, East Farmingdale, New York.

Location Identification	Drilling/Sampling Method[1]	Completed Total Depth (ft bls)	Completed Soil Sampling Intervals (ft bls)	Completed Soil Laboratory Analysis[2]	Completed Soil Vapor/Air Sampling Intervals (ft bls)	Completed Soil Vapor/Air Laboratory Analysis[2]	Completed Groundwater Sampling Intervals (ft bls)	Completed Groundwater Laboratory Analysis[2]
MEDIA: GROUNDWATER								
Temporary Monitoring Wells								
AGW-1	DPT/GS	55	--	--	--	--	12 - 13, 34 - 35, 54 - 55	VOC
AGW-2	DPT/GS	45	--	--	--	--	10 - 11, 34 - 35, 44 - 45	VOC
AGW-3	DPT/GS	55	--	--	--	--	10 - 11, 34 - 35, 54 - 55	VOC
AGW-4	DPT/GS	55	--	--	--	--	10 - 11, 34 - 35, 54 - 55	VOC
AGW-5	DPT/GS	55	--	--	--	--	8 - 9, 34 - 35, 54 - 55	VOC
AGW-6	DPT/GS	11	--	--	--	--	10 - 11	VOC
AGW-7	DPT/GS	55	--	--	--	--	13 - 14, 34 - 35, 54 - 55	VOC
AGW-8	DPT/GS	55	--	--	--	--	10 - 11, 16 - 17, 34 - 35, 54 - 55	VOC
AGW-9	DPT/GS	49	--	--	--	--	10 - 11, 16 - 17, 28 - 29, 48 - 49	VOC
AGW-10	DPT/GS	17	--	--	--	--	10 - 11, 16 - 17	VOC
AGW-11	DPT/GS	55	--	--	--	--	10 - 11, 34 - 35, 51 - 55	VOC
Monitoring Wells								
TRMW-1	--/SP	30	--	--	--	--	20 - 30	VOC
TRMW-2	--/SP	30	--	--	--	--	20 - 30	VOC
TRMW-3	--/SP	30	--	--	--	--	20 - 30	VOC
TRMW-4	--/SP	45	--	--	--	--	35 - 45	VOC
TRMW-5	--/SP	40	--	--	--	--	20 - 40	VOC

1	The complete description of drilling and sampling methods is provided in the NYSDEC-approved RI/FS Work Plan and summarized in Section 3 of this RI Report.
2	Laboratory analysis of soil, soil vapor, ambient air, indoor air, and groundwater samples was performed using one or more of the following methods: - VOCs: TCL VOCs using EPA Method 8260 (soil and groundwater) or EPA Method TO-15 (soil vapor and air).
3	Sub-slab soil vapor samples were collected at an approximate depth of 2 inches below the bottom of the floor slab.
ft bls	Feet below land surface.
DPT	Direct Push Technology.
MC	Macro-Core® Soil Sampler.
VOC	Volatile Organic Compound.
SUMMA®	SUMMA® canister.
GS	Screen Point 15/16 Groundwater Sampler.
SP	Submersible pump.
TCL	Target Compound List.
EPA	U. S. Environmental Protection Agency.
--	Not applicable.

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Table 2. Monitoring Well Construction Details, Target Rock Site, East Farmingdale, New York.

Monitoring Well Identification	Well Diameter (inches)	Total Depth (ft bls)	Screened Interval (ft bls)
TRMW-1	2	30	20 - 30
TRMW-2	2	30	20 - 30
TRMW-3	2	30	20 - 30
TRMW-4	2	45	35 - 45
TRMW-5	4	40	20 - 40

ft bls Feet below land surface.

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Table 3. Water-Level Measurements Collected from Monitoring Wells on March 23, 2009, Target Rock Site, East Farmingdale, New York.

Well Designation	Estimated Elevation of Measuring Point [1, 2, 3] (feet rmsl)	Depth to Water (feet bmp)	Estimated Water-Level Elevation (feet rmsl)
TRMW-1	68.58	8.81	59.77
TRMW-2	69.72	10.30	59.42
TRMW-3	68.06	8.35	59.71
TRMW-4	70.33	11.20	59.13
TRMW-5	69.29	9.40	59.89

rmsl Relative to mean sea level.
bmp Below measuring point.

Notes:
1 Measuring point elevations are not available for monitoring wells TRMW-1 through TRMW-5.
2 Land surface elevation is not available for TRMW-5. Assumed land surface elevation of 69.50 feet rmsl based on field visual estimate relative to TRMW-1 land surface elevation.
3 Measuring point elevations were calculated using known or assumed land surface elevations and measuring the distance between top of the inner PVC casing and land surface.

Table 4. Standards, Criteria, and Guidance (SCG) Values, Target Rock Site, East Farmingdale, New York.

Matrix:	Soil	Groundwater	Sub-Slab Soil Vapor	Indoor Air
Constituent	NYSDEC Subpart 375-6 Industrial Use SCO [1] (ug/kg)	NYSDEC TOGS (1.1.1) SGV (ug/L)	NYSDOH SV/IA Matrices [2] (ug/m^3)	NYSDOH Guidance [3] (ug/m^3)
Acetone	1,000,000	50	-	-
Dichlorodifluoromethane	-	5	-	-
Benzene	89,000	1	-	-
Bromodichloromethane	-	50	-	-
Bromoform	-	50	-	-
Bromomethane	-	5	-	-
Methyl Ethyl Ketone	1,000,000	50	-	-
Trichlorofluoromethane	-	5	-	-
Carbon disulfide	-	60	-	-
Carbon tetrachloride	44,000	5	SV/IA Matrix 1	-
Chlorobenzene	1,000,000	5	-	-
1,1,2-Trichloro-1,2,2-trifluoroethane	-	5	-	-
Chloroethane	-	5	-	-
Chloroform	700,000	7	-	-
Chloromethane	-	5	-	-
Dibromochloromethane	-	50	-	-
1,1-Dichloroethane	480,000	5	-	-
1,2-Dichloroethane	60,000	0.6	-	-
1,1-Dichloroethene	1,000,000	5	SV/IA Matrix 2	-
1,2-Dichloropropane	-	1	-	-
cis-1,3-Dichloropropene	-	0.4	-	-
Methyl acetate	-	-	-	-
trans-1,3-Dichloropropene	-	0.4	-	-
Ethylbenzene	780,000	5	-	-
2-Hexanone	-	50	-	-
Methylene Chloride	1,000,000	5	-	60
methyl isobutyl ketone	-	-	-	-
Styrene	-	5	-	-
1,1,2,2-Tetrachloroethane	-	5	-	-
Tetrachloroethene	300,000	5	SV/IA Matrix 2	100
Toluene	1,000,000	5	-	-
1,1,1-Trichloroethane	1,000,000	5	SV/IA Matrix 2	-
1,1,2-Trichloroethane	-	1	-	-
Trichloroethene	400,000	5	SV/IA Matrix 1	5
Vinyl chloride	27,000	2	SV/IA Matrix 1	-
Xylenes, Total	1,000,000	5	-	-
cis-1,2-Dichloroethene	1,000,000	5	SV/IA Matrix 2	-
Cyclohexane	-	-	-	-
trans-1,2-Dichloroethene	1,000,000	5	-	-
Isopropylbenzene	-	5	-	-
1,3-Dichlorobenzene	560,000	3	-	-
1,4-Dichlorobenzene	250,000	3	-	-
1,2-Dichlorobenzene	1,000,000	3	-	-
1,2-Dibromo-3-Chloropropane	-	0.04	-	-
1,2,4-Trichlorobenzene	-	5	-	-
1,2-Dibromoethane	-	0.0006	-	-
Methyl tert-butyl ether	1,000,000	10	-	-
Methylcyclohexane	-	-	-	-

See footnotes on last page.

Table 4. Standards, Criteria, and Guidance (SCG) Values, Target Rock Site, East Farmingdale, New York.

1	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives.
2	Decision Matrices - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
3	Table 3.1 - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
NYSDEC	New York State Department of Environmental Conservation.
SCO	Soil Cleanup Objective.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
NYSDOH	New York State Department of Health.
SV/IA	Soil Vapor/Indoor Air.
ug/kg	Micrograms per kilogram.
ug/L	Micrograms per liter.
ug/m^3	Micrograms per cubic meter.
-	Not available.

Table 5. Concentrations of Volatile Organic Compounds in Soil Samples Collected from Soil Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/kg)	NYSDEC Subpart 375-6 Industrial Use SCO [1] (ug/kg)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-8 (7-9) 7 - 9 3/17/2009	AGW-9(7.5-9.5) 7.5 - 9.5 3/13/2009	AGW-9(13-15) 13 - 15 3/13/2009
Acetone	1,000,000		<21 J	<22	<21 B
Dichlorodifluoromethane	-		<5.2	<5.5	<5.3
Benzene	89,000		<5.2	<5.5	<5.3
Bromodichloromethane	-		<5.2	<5.5	<5.3
Bromoform	-		<5.2	<5.5	<5.3
Bromomethane	-		<5.2 J	<5.5	<5.3
Methyl Ethyl Ketone	1,000,000		<10 J	<11	<11
Trichlorofluoromethane	-		<5.2	<5.5	<5.3
Carbon disulfide	-		<5.2	<5.5	<5.3
Carbon tetrachloride	44,000		<5.2	<5.5	<5.3
Chlorobenzene	1,000,000		<5.2	<5.5	<5.3
1,1,2-Trichloro-1,2,2-trifluoroethane	-		<5.2	<5.5	<5.3
Chloroethane	-		<5.2	<5.5	<5.3
Chloroform	700,000		<5.2	<5.5	<5.3
Chloromethane	-		<5.2 J	<5.5	<5.3
Dibromochloromethane	-		<5.2	<5.5	<5.3
1,1-Dichloroethane	480,000		<5.2	<5.5	<5.3
1,2-Dichloroethane	60,000		<5.2	<5.5	<5.3
1,1-Dichloroethene	1,000,000		<5.2	<5.5	<5.3
1,2-Dichloropropane	-		<5.2	<5.5	<5.3
cis-1,3-Dichloropropene	-		<5.2	<5.5	<5.3
Methyl acetate	-		<5.2 J	<5.5	<5.3
trans-1,3-Dichloropropene	-		<5.2	<5.5	<5.3
Ethylbenzene	780,000		<5.2	<5.5	<5.3
2-Hexanone	-		<10	<11	<11
Methylene Chloride	1,000,000		<21 B	<22 B	<21 B
methyl isobutyl ketone	-		<5.2	<5.5	<5.3
Styrene	-		<5.2	<5.5	<5.3
1,1,2,2-Tetrachloroethane	-		<5.2	<5.5	<5.3
Tetrachloroethene	300,000		<5.2	**1.7 J**	**10**
Toluene	1,000,000		<5.2	**1.2 J**	**0.51 J**
1,1,1-Trichloroethane	1,000,000		<5.2	<5.5	<5.3
1,1,2-Trichloroethane	-		<5.2	<5.5	<5.3
Trichloroethene	400,000		<5.2	<5.5	<5.3
Vinyl chloride	27,000		<5.2 J	<5.5	<5.3
Xylenes, Total	1,000,000		<5.2	<5.5	<5.3
cis-1,2-Dichloroethene	1,000,000		<5.2	<5.5	<5.3
Cyclohexane	-		<5.2	<5.5	<5.3
trans-1,2-Dichloroethene	1,000,000		<5.2	<5.5	<5.3
Isopropylbenzene	-		<5.2	<5.5	<5.3
1,3-Dichlorobenzene	560,000		<5.2	<5.5	<5.3
1,4-Dichlorobenzene	250,000		<5.2	<5.5	<5.3
1,2-Dichlorobenzene	1,000,000		<5.2	<5.5	<5.3
1,2-Dibromo-3-Chloropropane	-		<10	<11	<11
1,2,4-Trichlorobenzene	-		<5.2	<5.5	<5.3
1,2-Dibromoethane	-		<5.2	<5.5	<5.3
Methyl tert-butyl ether	1,000,000		<5.2	<5.5	<5.3
Methylcyclohexane	-		<5.2	<5.5	<5.3

1	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives.
NYSDEC	New York State Department of Environmental Conservation.
SCO	Soil Cleanup Objective.
ug/kg	Micrograms per kilogram.
J	Estimated value.
B	Non-detect at laboratory Reporting Limit due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SCO.

Table 5. Concentrations of Volatile Organic Compounds in Soil Samples Collected from Soil Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/kg)	NYSDEC Subpart 375-6 Industrial Use SCO [1] (ug/kg)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-10(8-10) 8 - 10 3/13/2009	AGW-10(13-15) 13 - 15 3/13/2009
Acetone	1,000,000		<20	<21
Dichlorodifluoromethane	-		<5.1	<5.4
Benzene	89,000		<5.1	<5.4
Bromodichloromethane	-		<5.1	<5.4
Bromoform	-		<5.1	<5.4
Bromomethane	-		<5.1	<5.4
Methyl Ethyl Ketone	1,000,000		<10	<11
Trichlorofluoromethane	-		<5.1	<5.4
Carbon disulfide	-		<5.1	<5.4
Carbon tetrachloride	44,000		<5.1	<5.4
Chlorobenzene	1,000,000		<5.1	<5.4
1,1,2-Trichloro-1,2,2-trifluoroethane	-		<5.1	<5.4
Chloroethane	-		<5.1	<5.4
Chloroform	700,000		<5.1	<5.4
Chloromethane	-		<5.1	<5.4
Dibromochloromethane	-		<5.1	<5.4
1,1-Dichloroethane	480,000		<5.1	<5.4
1,2-Dichloroethane	60,000		<5.1	<5.4
1,1-Dichloroethene	1,000,000		<5.1	<5.4
1,2-Dichloropropane	-		<5.1	<5.4
cis-1,3-Dichloropropene	-		<5.1	<5.4
Methyl acetate	-		<5.1	<5.4
trans-1,3-Dichloropropene	-		<5.1	<5.4
Ethylbenzene	780,000		<5.1	<5.4
2-Hexanone	-		<10	<11
Methylene Chloride	1,000,000		<20 B	<21 B
methyl isobutyl ketone	-		<5.1	<5.4
Styrene	-		<5.1	<5.4
1,1,2,2-Tetrachloroethane	-		<5.1	<5.4
Tetrachloroethene	300,000		<5.1	<5.4
Toluene	1,000,000		<5.1	**0.26 J**
1,1,1-Trichloroethane	1,000,000		<5.1	<5.4
1,1,2-Trichloroethane	-		<5.1	<5.4
Trichloroethene	400,000		<5.1	<5.4
Vinyl chloride	27,000		<5.1	<5.4
Xylenes, Total	1,000,000		<5.1	<5.4
cis-1,2-Dichloroethene	1,000,000		<5.1	<5.4
Cyclohexane	-		<5.1	<5.4
trans-1,2-Dichloroethene	1,000,000		<5.1	<5.4
Isopropylbenzene	-		<5.1	<5.4
1,3-Dichlorobenzene	560,000		<5.1	<5.4
1,4-Dichlorobenzene	250,000		<5.1	<5.4
1,2-Dichlorobenzene	1,000,000		<5.1	<5.4
1,2-Dibromo-3-Chloropropane	-		<10	<11
1,2,4-Trichlorobenzene	-		<5.1	<5.4
1,2-Dibromoethane	-		<5.1	<5.4
Methyl tert-butyl ether	1,000,000		<5.1	<5.4
Methylcyclohexane	-		<5.1	<5.4

1	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives.
NYSDEC	New York State Department of Environmental Conservation.
SCO	Soil Cleanup Objective.
ug/kg	Micrograms per kilogram.
J	Estimated value.
B	Non-detect at laboratory Reporting Limit due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SCO.

Table 6. Concentrations of Volatile Organic Compounds in Exterior Soil Vapor and Ambient Air Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID:	SV-1 (6.5-7)	SV-2 (6.5-7)	Rep031209	SV-3 (6.5-7)
	Sample Depth (ft bls):	6.5 - 7	6.5 - 7	6.5 - 7	6.5 - 7
	Sample Date:	3/12/2009	3/12/2009	3/12/2009	03/11/2009
				SV-2 (6.5-7) Duplicate	
Freon 12		**1.6**	**1.4 J**	**1.5 J**	**2.6**
Chloromethane		<0.32	<0.29 J	<0.30 J	<0.80
Vinyl Chloride		<0.40	<0.36 J	<0.37 J	<0.99
Bromomethane		<0.60	<0.55 J	<0.57 J	<1.5
Chloroethane		<0.41	<0.37 J	<0.38 J	<1.0
Freon 11		**69**	**0.85 J**	<0.82 J	**2.9**
Freon 113		<1.2	**58 J**	**53 J**	<3.0
1,1-Dichloroethene		<0.61	<0.56 J	<0.58 J	<1.5
Acetone		**18**	**49 J**	**46 J**	**180**
Carbon Disulfide		<2.4	<2.2 J	<2.3 J	<6.0
Methylene Chloride		<1.1	<0.98 J	<1.0 J	<2.7
Methyl tert-butyl ether		<0.56	<0.51 J	<0.53 J	<1.4
trans-1,2-Dichloroethene		<0.61	<0.56 J	<0.58 J	<1.5
1,1-Dichloroethane		**6.2**	**1.6 J**	**1.4 J**	<1.6
2-Butanone (Methyl Ethyl Ketone)		**4.4**	**11 J**	**13 J**	**51**
cis-1,2-Dichloroethene		<0.61	<0.56 J	<0.58 J	<1.5
Chloroform		<0.76	<0.69 J	<0.71 J	<1.9
1,1,1-Trichloroethane		**260**	**22 J**	**22 J**	**5.7**
Cyclohexane		**5.8**	<0.48 J	**0.51 J**	<1.3
Carbon Tetrachloride		<0.98	<0.89 J	<0.92 J	<2.4
Benzene		**1.3**	**1.6 J**	**1.7 J**	**10**
1,2-Dichloroethane		<0.63	<0.57 J	<0.59 J	<1.6
Trichloroethene		**1.4**	**2.3 J**	**2.1 J**	<2.1
1,2-Dichloropropane		<0.72	<0.65 J	<0.67 J	<1.8
Bromodichloromethane		<1.0	<0.94 J	<0.98 J	<2.6
cis-1,3-Dichloropropene		<0.70	<0.64 J	<0.66 J	<1.8
4-Methyl-2-pentanone		<0.63	<0.58 J	<0.60 J	**2.1**
Toluene		**1.2**	**1.5 J**	**1.5 J**	**9.1**
trans-1,3-Dichloropropene		<0.70	<0.64 J	<0.66 J	<1.8
1,1,2-Trichloroethane		<0.84	<0.77 J	<0.80 J	<2.1
Tetrachloroethene		**82**	**41 J**	**42 J**	**330**
2-Hexanone		<3.2	<2.9 J	<3.0 J	<7.9
Dibromochloromethane		<1.3	<1.2 J	<1.2 J	<3.3
1,2-Dibromoethane (EDB)		<1.2	<1.1 J	<1.1 J	<3.0
Chlorobenzene		<0.71	<0.65 J	<0.67 J	<1.8
Ethyl Benzene		<0.67	<0.61 J	<0.63 J	<1.7
m,p-Xylene		<0.67	<0.61 J	<0.63 J	**1.9**
o-Xylene		<0.67	<0.61 J	<0.63 J	<1.7
Styrene		<0.66	<0.60 J	<0.62 J	**2.5**
Bromoform		<1.6	<1.4 J	<1.5 J	<4.0
Cumene		<0.76	<0.69 J	<0.72 J	<1.9
1,1,2,2-Tetrachloroethane		<1.1	<0.97 J	<1.0 J	<2.6
1,3-Dichlorobenzene		<0.93	<0.85 J	<0.88 J	<2.3
1,4-Dichlorobenzene		<0.93	<0.85 J	<0.88 J	<2.3
1,2-Dichlorobenzene		<0.93	<0.85 J	<0.88 J	<2.3
1,2,4-Trichlorobenzene		<5.8	<5.2 J	<5.4 J	<14
Methyl Acetate		<2.3 J	<2.1 J	<2.2 J	<5.9
Methylcyclohexane		<3.1	<2.8 J	<2.9 J	<7.8
1,2-Dibromo-3-chloropropane		<7.5	<6.8 J	<7.0 J	<19

ug/m^3	Micrograms per cubic meter.
ft bls	Feet below land surface.
J	Estimated value.
R	Unusable value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 6. Concentrations of Volatile Organic Compounds in Exterior Soil Vapor and Ambient Air Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID:	SV-4 (6.5-7)	SV-5 (4.5-5)	SV-6 (6.5-7)	SV-7 (6.5-7)
	Sample Depth (ft bls):	6.5 - 7	4.5 - 5	6.5 - 7	6.5 - 7
	Sample Date:	03/11/2009	3/12/2009	03/11/2009	3/12/2009
Freon 12		**3.3 J**	**2.6**	**3.4 J**	**2.0**
Chloromethane		R	<0.66	<0.51 J	<0.34
Vinyl Chloride		R	<0.82	<0.63 J	<0.42
Bromomethane		**1.7 J**	<1.2	<0.96 J	<0.64
Chloroethane		R	<0.85	<0.65 J	<0.43
Freon 11		**2.2 J**	<1.8	**2.4 J**	**45**
Freon 113		**11 J**	**150**	**180 J**	<1.2
1,1-Dichloroethene		R	<1.3	**1.9 J**	<0.65
Acetone		**36 J**	**46**	**48 J**	**47**
Carbon Disulfide		**2.6 J**	**6.5**	**13 J**	**4.1**
Methylene Chloride		R	<2.2	<1.7 J	<1.1
Methyl tert-butyl ether		R	<1.2	<0.89 J	<0.59
trans-1,2-Dichloroethene		R	<1.3	<0.98 J	<0.65
1,1-Dichloroethane		R	**1.6**	**2.0 J**	**2.8**
2-Butanone (Methyl Ethyl Ketone)		**10 J**	**7.7**	**11 J**	**7.4**
cis-1,2-Dichloroethene		R	**11**	**3.7 J**	<0.65
Chloroform		R	**3.2**	**3.5 J**	<0.80
1,1,1-Trichloroethane		**2.8 J**	**11**	**18 J**	**110**
Cyclohexane		R	<1.1	**1.4 J**	**2.8**
Carbon Tetrachloride		R	<2.0	<1.6 J	<1.0
Benzene		**5.1 J**	**5.3**	**10 J**	**2.3**
1,2-Dichloroethane		R	<1.3	<1.0 J	<0.66
Trichloroethene		**0.98 J**	**42**	**26 J**	<0.88
1,2-Dichloropropane		R	<1.5	<1.1 J	<0.76
Bromodichloromethane		R	<2.2	<1.7 J	<1.1
cis-1,3-Dichloropropene		R	<1.5	<1.1 J	<0.74
4-Methyl-2-pentanone		R	<1.3	<1.0 J	<0.67
Toluene		**3.7 J**	**3.9**	**7.6 J**	**2.4**
trans-1,3-Dichloropropene		R	<1.5	<1.1 J	<0.74
1,1,2-Trichloroethane		R	<1.8	<1.4 J	<0.89
Tetrachloroethene		**17 J**	**590**	**340 J**	**36**
2-Hexanone		R	<6.6	<5.1 J	<3.4
Dibromochloromethane		R	<2.7	<2.1 J	<1.4
1,2-Dibromoethane (EDB)		R	<2.5	<1.9 J	<1.3
Chlorobenzene		R	<1.5	<1.1 J	<0.76
Ethyl Benzene		R	<1.4	**1.3 J**	<0.71
m,p-Xylene		**0.69 J**	<1.4	**2.7 J**	**0.88**
o-Xylene		R	<1.4	**1.1 J**	<0.71
Styrene		**0.64 J**	<1.4	**1.1 J**	<0.70
Bromoform		R	<3.3	<2.6 J	<1.7
Cumene		R	<1.6	<1.2 J	<0.81
1,1,2,2-Tetrachloroethane		R	<2.2	<1.7 J	<1.1
1,3-Dichlorobenzene		R	<1.9	<1.5 J	<0.99
1,4-Dichlorobenzene		R	<1.9	<1.5 J	<0.99
1,2-Dichlorobenzene		R	<1.9	<1.5 J	<0.99
1,2,4-Trichlorobenzene		R	<12	<9.2 J	<6.1
Methyl Acetate		R	<4.9 J	<3.8 J	**2.6 J**
Methylcyclohexane		R	<6.5	<5.0 J	<3.3
1,2-Dibromo-3-chloropropane		R	<16	<12 J	<7.9

ug/m^3	Micrograms per cubic meter.
ft bls	Feet below land surface.
J	Estimated value.
R	Unusable value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 6. Concentrations of Volatile Organic Compounds in Exterior Soil Vapor and Ambient Air Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID:	SV-8 (6.5-7)	SV-9 (6.5-7)	AA-1
	Sample Depth (ft bls):	6.5 - 7	6.5 - 7	
	Sample Date:	03/11/2009	3/12/2009	3/12/2009
Freon 12		<7.2 J	**1.7**	**2.3**
Chloromethane		<3.0 J	<0.32	**0.86**
Vinyl Chloride		<3.7 J	<0.40	<0.43
Bromomethane		<5.7 J	<0.60	<0.65
Chloroethane		<3.8 J	<0.41	<0.44
Freon 11		<8.2 J	**2.3**	**1.4**
Freon 113		<11 J	**310**	<1.3
1,1-Dichloroethene		<5.8 J	**0.86**	<0.67
Acetone		<17 J	**33**	**21**
Carbon Disulfide		<23 J	**4.6**	<2.6
Methylene Chloride		<10 J	<1.1	<1.2
Methyl tert-butyl ether		<5.3 J	<0.56	<0.60
trans-1,2-Dichloroethene		<5.8 J	<0.61	<0.67
1,1-Dichloroethane		<5.9 J	<0.63	<0.68
2-Butanone (Methyl Ethyl Ketone)		<4.3 J	**11**	**5.1**
cis-1,2-Dichloroethene		<5.8 J	**1.2**	<0.67
Chloroform		<7.1 J	**0.82**	<0.82
1,1,1-Trichloroethane		<8.0 J	**3.7**	<0.92
Cyclohexane		<5.0 J	<0.53	<0.58
Carbon Tetrachloride		<9.2 J	<0.98	<1.0
Benzene		<4.7 J	**4.6**	<0.54
1,2-Dichloroethane		<5.9 J	<0.63	<0.68
Trichloroethene		<7.8 J	**3.9**	<0.90
1,2-Dichloropropane		<6.7 J	<0.72	<0.78
Bromodichloromethane		<9.8 J	<1.0	<1.1
cis-1,3-Dichloropropene		<6.6 J	<0.70	<0.76
4-Methyl-2-pentanone		<6.0 J	<0.63	<0.69
Toluene		<5.5 J	**3.6**	<0.63
trans-1,3-Dichloropropene		<6.6 J	<0.70	<0.76
1,1,2-Trichloroethane		<8.0 J	<0.84	<0.92
Tetrachloroethene		**68 J**	**110**	<1.1
2-Hexanone		<30 J	<3.2	<3.4
Dibromochloromethane		<12 J	<1.3	<1.4
1,2-Dibromoethane (EDB)		<11 J	<1.2	<1.3
Chlorobenzene		<6.7 J	<0.71	<0.77
Ethyl Benzene		<6.3 J	<0.67	<0.73
m,p-Xylene		<6.3 J	**0.71**	<0.73
o-Xylene		<6.3 J	<0.67	<0.73
Styrene		<6.2 J	<0.66	<0.72
Bromoform		<15 J	<1.6	<1.7
Cumene		<7.2 J	<0.76	<0.82
1,1,2,2-Tetrachloroethane		<10 J	<1.1	<1.2
1,3-Dichlorobenzene		<8.8 J	<0.93	<1.0
1,4-Dichlorobenzene		<8.8 J	<0.93	<1.0
1,2-Dichlorobenzene		<8.8 J	<0.93	<1.0
1,2,4-Trichlorobenzene		<54 J	<5.8	<6.2
Methyl Acetate		<22 J	<2.3 J	<2.5 J
Methylcyclohexane		<29 J	<3.1	<3.4
1,2-Dibromo-3-chloropropane		<70 J	<7.5	<8.1

ug/m^3	Micrograms per cubic meter.
ft bls	Feet below land surface.
J	Estimated value.
R	Unusable value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 7. Concentrations of Volatile Organic Compounds in Sub-Slab Soil Vapor Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	NYSDOH SV/IA Matrices [1] (ug/m^3)	Sample ID: / Sample Date:	SS-1 3/16/2009	SS-2 3/16/2009	SS-3 3/16/2009	SS-4 3/16/2009
Freon 12	-		<160	<66	<28	<31
Chloromethane	-		<260	<110	<46	<52
Vinyl Chloride	250		<81	<34	<14	<16
Bromomethane	-		<120	<52	<22	<24
Chloroethane	-		<83	<35	<15	<17
Freon 11	-		<180	<75	<31	<35
Freon 113	-		<240	**3300**	**2300**	**1200**
1,1-Dichloroethene	1,000		**140**	<53	<22	<25
Acetone	-		**1400**	**820**	**140**	**290**
Carbon Disulfide	-		<98	<42	<17	<20
Methylene Chloride	-		<110	<46	<19	<22
Methyl tert-butyl ether	-		<110	<48	<20	<23
trans-1,2-Dichloroethene	-		<120	<53	<22	<25
1,1-Dichloroethane	-		**780**	**130**	**61**	**78**
2-Butanone (Methyl Ethyl Ketone)	-		<93	<40	<16	<18
cis-1,2-Dichloroethene	1,000		**620**	<53	<22	<25
Chloroform	-		<150	<65	<27	<31
1,1,1-Trichloroethane	1,000		**50000**	**910**	**1900**	**3400**
Cyclohexane	-		<110	<46	<19	<22
Carbon Tetrachloride	250		<200	<84	<35	<40
Benzene	-		<100	<43	<18	<20
1,2-Dichloroethane	-		<130	<54	<23	<25
Trichloroethene	250		**32000**	**340**	**1000**	**580**
1,2-Dichloropropane	-		<150	<62	<26	<29
Bromodichloromethane	-		<210	<90	<38	<42
cis-1,3-Dichloropropene	-		<140	<61	<25	<28
4-Methyl-2-pentanone	-		<130	<55	<23	<26
Toluene	-		<120	<50	<21	<24
trans-1,3-Dichloropropene	-		<140	<61	<25	<28
1,1,2-Trichloroethane	-		<170	<73	<30	<34
Tetrachloroethene	1,000		**51000**	**19000**	**9200**	**8800**
2-Hexanone	-		<520	<220	<92	<100
Dibromochloromethane	-		<270	<110	<48	<54
1,2-Dibromoethane (EDB)	-		<240	<100	<43	<48
Chlorobenzene	-		<140	<62	<26	<29
Ethyl Benzene	-		<140	<58	<24	<27
m,p-Xylene	-		<140	<58	<24	<27
o-Xylene	-		<140	<58	<24	<27
Styrene	-		<130	<57	<24	<27
Bromoform	-		<330	<140	<58	<65
Cumene	-		<160	<66	<28	<31
1,1,2,2-Tetrachloroethane	-		<220	<92	<38	<43
1,3-Dichlorobenzene	-		<190	<80	<34	<38
1,4-Dichlorobenzene	-		<190	<80	<34	<38
1,2-Dichlorobenzene	-		<190	<80	<34	<38
1,2,4-Trichlorobenzene	-		<940	<400	<170	<190
Methyl Acetate	-		<960	<410	<170	<190
Methylcyclohexane	-		<510	<220	<90	<100
1,2-Dibromo-3-chloropropane	-		<1200	<520	<220	<240

1	Decision Matrices - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
NYSDOH	New York State Department of Health.
SV/IA	Soil Vapor/Indoor Air.
SCG	Standards, criteria, and guidance.
ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.
	Compound concentration exceeds SCG.

Table 7. Concentrations of Volatile Organic Compounds in Sub-Slab Soil Vapor Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	NYSDOH SV/IA Matrices [1] (ug/m^3)	Sample ID: / Sample Date:	SS-5 3/16/2009	SS-6 03/09/2009	SS-7 03/09/2009	SS-8 03/09/2009
Freon 12	-		**2.9**	**2.9**	**3.5**	**3.0**
Chloromethane	-		<1.2	<1.1	<1.2	<1.1
Vinyl Chloride	250		**1.6**	<1.3	<1.4	<1.3
Bromomethane	-		<2.2	<2.0	<2.2	<2.0
Chloroethane	-		<1.5	<1.4	<1.5	<1.4
Freon 11	-		**7.8**	**4.0**	**6.0**	**3.3**
Freon 113	-		**1100**	**91**	<4.3	<4.0
1,1-Dichloroethene	1,000		<2.3	<2.0	<2.2	<2.1
Acetone	-		<6.8	**820 EJ**	**390**	**1100 EJ**
Carbon Disulfide	-		<8.9	**11**	**14**	<8.2
Methylene Chloride	-		<4.0	<3.6	<3.9	<3.7
Methyl tert-butyl ether	-		<2.0	<1.9	<2.0	<1.9
trans-1,2-Dichloroethene	-		<2.2	<2.0	<2.2	<2.1
1,1-Dichloroethane	-		<2.3	<2.1	<2.3	<2.1
2-Butanone (Methyl Ethyl Ketone)	-		**15**	**17**	**12**	**8.4**
cis-1,2-Dichloroethene	1,000		<2.2	<2.0	<2.2	<2.1
Chloroform	-		**3.0**	<2.5	<2.7	<2.6
1,1,1-Trichloroethane	1,000		**25**	**10**	**180**	**4.1**
Cyclohexane	-		<2.0	<1.8	<1.9	<1.8
Carbon Tetrachloride	250		<3.6	<3.2	<3.5	<3.3
Benzene	-		**2.4**	**3.2**	**3.6**	**2.0**
1,2-Dichloroethane	-		<2.3	<2.1	<2.3	<2.1
Trichloroethene	250		**31**	<2.8	<3.0	**5.5**
1,2-Dichloropropane	-		<2.6	<2.4	<2.6	<2.4
Bromodichloromethane	-		<3.8	<3.5	<3.8	<3.5
cis-1,3-Dichloropropene	-		<2.6	<2.3	<2.5	<2.4
4-Methyl-2-pentanone	-		<2.3	<2.1	<2.3	<2.2
Toluene	-		<2.1	**5.1**	**13**	**12**
trans-1,3-Dichloropropene	-		<2.6	<2.3	<2.5	<2.4
1,1,2-Trichloroethane	-		<3.1	<2.8	<3.0	<2.9
Tetrachloroethene	1,000		**870**	**120**	**140**	**150**
2-Hexanone	-		<12	<10	<11	<11
Dibromochloromethane	-		<4.8	<4.4	**5.4**	<4.5
1,2-Dibromoethane (EDB)	-		<4.4	<4.0	<4.3	<4.0
Chlorobenzene	-		<2.6	<2.4	<2.6	<2.4
Ethyl Benzene	-		<2.5	<2.2	**32**	**4.0**
m,p-Xylene	-		<2.5	**6.8**	**140**	**11**
o-Xylene	-		<2.5	**2.5**	**47**	**4.4**
Styrene	-		<2.4	<2.2	<2.4	<2.2
Bromoform	-		<5.9	<5.3	**7.3**	<5.4
Cumene	-		<2.8	**10**	<2.8	<2.6
1,1,2,2-Tetrachloroethane	-		<3.9	<3.5	<3.8	<3.6
1,3-Dichlorobenzene	-		<3.4	<3.1	<3.4	<3.2
1,4-Dichlorobenzene	-		<3.4	<3.1	<3.4	<3.2
1,2-Dichlorobenzene	-		<3.4	<3.1	<3.4	<3.2
1,2,4-Trichlorobenzene	-		<21	<19	<21	<20
Methyl Acetate	-		<8.6	<7.8 J	<8.5 J	<8.0 J
Methylcyclohexane	-		<11	<10	<11	<10
1,2-Dibromo-3-chloropropane	-		<28	<25 J	<27 J	<25 J

1	Decision Matrices - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
NYSDOH	New York State Department of Health.
SV/IA	Soil Vapor/Indoor Air.
SCG	Standards, criteria, and guidance.
ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.
	Compound concentration exceeds SCG.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-1 (12-13) 12 - 13 3/17/2009	AGW-1 (34-35) 34 - 35 3/17/2009	AGW-1 (54-55) 54 - 55 3/17/2009
Acetone	50		**1.3 J**	**2.6 J**	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	**0.78 J**	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		**1.6 J**	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-2 (10-11) 10 - 11 3/18/2009	AGW-2 (34-35) 34 - 35 3/18/2009	AGW-2 (44-45) 44 - 45 3/18/2009
Acetone	50		**2.1 J**	**2.3 J**	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	**2.6 J**
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		**2.4 J**	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		**0.70 J**	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	**1.7 J**
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-3 (10-11') 10 - 11 3/19/2009	AGW-3 (34-35') 34 - 35 3/19/2009	AGW-3 (54-55') 54 - 55 3/19/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0 J
Chloroform	7		<5.0	**1.3 J**	**0.71 J**
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-4 (10-11') 10 - 11 3/19/2009	AGW-4 (34-35') 34 - 35 3/19/2009	AGW-4 (54-55') 54 - 55 3/19/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0 J
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	**0.27 J**	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-5 (8-9') 8 - 9 3/19/2009	Rep031909 8 - 9 3/19/2009 AGW-5 (8-9')	AGW-5 (34-35') 34 - 35 3/19/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0 J
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-5 (54-55') 54 - 55 3/19/2009	AGW-6 (10-11') 10 - 11 3/19/2009	AGW-7 (13-14) 13 - 14 3/18/2009
Acetone	50		<10	<10	**1.3 J**
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0
Chloroform	7		**1.7 J**	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	Rep031809 13 - 14 3/18/2009 AGW-7 (13-14)	AGW-7 (34-35) 34 - 35 3/18/2009	AGW-7 (54-55) 54 - 55 3/18/2009
Acetone	50		<10	**3.6 J**	**1.4 J**
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	**0.26 J**
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-8 (10-11) 10 - 11 3/17/2009	AGW-8 (16-17) 16 - 17 3/17/2009	AGW-8 (34-35) 34 - 35 3/17/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-8 (54-55) 54 - 55 3/17/2009	AGW-9(10-11) 10 - 11 3/13/2009	AGW-9(16-17) 16 - 17 3/13/2009
Acetone	50		**1.4 J**	**2.2 J**	**1.5 J**
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	**6.0**	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	**29**	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	**1.1 J**	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	**10**	<5.0
Toluene	5		<5.0	**9.9**	<5.0
1,1,1-Trichloroethane	5		<5.0	**18**	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	**2.2 J**	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	**35**	<5.0
cis-1,2-Dichloroethene	5		<5.0	**1.6 J**	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-9(28-29) 28 - 29 3/13/2009	AGW-9(48-49) 48 - 49 3/13/2009	AGW-10(10-11) 10 - 11 3/13/2009
Acetone	50		**2.3 J**	<12 B	**1.2 J**
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	**4.3 J**	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	**1.4 J**
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	**0.68 J**	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	**0.88 J**	**2.1 J**
Toluene	5		<5.0	**0.73 J**	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	**3.4 J**
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	**1.2 J**
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-10(16-17) 16 - 17 3/13/2009	AGW-11 (10-11) 10 - 11 3/18/2009	AGW-11 (34-35) 34 - 35 3/18/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	**29 J**	<5.0
Chloroethane	5		<5.0	<5.0	<5.0
Chloroform	7		**1.7 J**	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	**3.4 J**	<5.0
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	**2.6 J**	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

Table 8. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-11 (51-55') 51 - 55 3/19/2009
Acetone	50		<10
Dichlorodifluoromethane	5		<5.0
Benzene	1		<5.0
Bromodichloromethane	50		<5.0
Bromoform	50		<5.0
Bromomethane	5		<5.0
Methyl Ethyl Ketone	50		<10
Trichlorofluoromethane	5		<5.0
Carbon disulfide	60		<5.0
Carbon tetrachloride	5		<5.0
Chlorobenzene	5		<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0
Chloroethane	5		<5.0 J
Chloroform	7		<5.0
Chloromethane	5		<5.0
Dibromochloromethane	50		<5.0
1,1-Dichloroethane	5		<5.0
1,2-Dichloroethane	0.6		<5.0
1,1-Dichloroethene	5		<5.0
1,2-Dichloropropane	1		<5.0
cis-1,3-Dichloropropene	0.4		<5.0
Methyl acetate	-		<5.0
trans-1,3-Dichloropropene	0.4		<5.0
Ethylbenzene	5		<5.0
2-Hexanone	50		<10
Methylene Chloride	5		<5.0
methyl isobutyl ketone	-		<10
Styrene	5		<5.0
1,1,2,2-Tetrachloroethane	5		<5.0
Tetrachloroethene	5		<5.0
Toluene	5		<5.0
1,1,1-Trichloroethane	5		<5.0
1,1,2-Trichloroethane	1		<5.0
Trichloroethene	5		<5.0
Vinyl chloride	2		<5.0
Xylenes, Total	5		<5.0
cis-1,2-Dichloroethene	5		<5.0
Cyclohexane	-		<5.0
trans-1,2-Dichloroethene	5		<5.0
Isopropylbenzene	5		<5.0
1,3-Dichlorobenzene	3		<5.0
1,4-Dichlorobenzene	3		<5.0
1,2-Dichlorobenzene	3		<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0
1,2,4-Trichlorobenzene	5		<5.0
1,2-Dibromoethane	0.0006		<5.0
Methyl tert-butyl ether	10		**0.17 J**
Methylcyclohexane	-		<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at detected sample concentration due to associated blank contamination.
ft bls	Feet below land surface.
-	Not available.
Bold	Indicates detection above laboratory Method Detection Limit.
	Compound concentration exceeds SGV.

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Table 9. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Date:	TRMW-1 3/23/2009	TRMW-2 3/23/2009	TRMW-3 3/23/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0 J
Chloroform	7		<5.0	<5.0	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0	<5.0	<5.0 J
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at laboratory Reporting Limit due to associated blank contamination.
-	Not available.
	Compound concentration exceeds SGV.

Table 9. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) SGV (ug/L)	Sample ID: / Sample Date:	TRMW-4 3/23/2009	Rep032309 3/23/2009 TRMW-4 Duplicate	TRMW-5 3/23/2009
Acetone	50		<10	<10	<10
Dichlorodifluoromethane	5		<5.0	<5.0	<5.0
Benzene	1		<5.0	<5.0	<5.0
Bromodichloromethane	50		<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0
Bromomethane	5		<5.0	<5.0	<5.0
Methyl Ethyl Ketone	50		<10	<10	<10
Trichlorofluoromethane	5		<5.0	<5.0	<5.0
Carbon disulfide	60		<5.0	<5.0	<5.0
Carbon tetrachloride	5		<5.0	<5.0	<5.0
Chlorobenzene	5		<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5		<5.0	<5.0	<5.0
Chloroethane	5		<5.0 J	<5.0 J	<5.0 J
Chloroform	7		<5.0 B	<5.0 B	<5.0
Chloromethane	5		<5.0	<5.0	<5.0
Dibromochloromethane	50		<5.0	<5.0	<5.0
1,1-Dichloroethane	5		<5.0	<5.0	<5.0
1,2-Dichloroethane	0.6		<5.0	<5.0	<5.0
1,1-Dichloroethene	5		<5.0	<5.0	<5.0
1,2-Dichloropropane	1		<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Methyl acetate	-		<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	0.4		<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0
2-Hexanone	50		<10	<10	<10
Methylene Chloride	5		<5.0	<5.0	<5.0
methyl isobutyl ketone	-		<10	<10	<10
Styrene	5		<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5		<5.0	<5.0	<5.0
Tetrachloroethene	5		<5.0 J	<5.0	<5.0 J
Toluene	5		<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5		<5.0	<5.0	<5.0
1,1,2-Trichloroethane	1		<5.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0	<5.0
Vinyl chloride	2		<5.0	<5.0	<5.0
Xylenes, Total	5		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Cyclohexane	-		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	5		<5.0	<5.0	<5.0
Isopropylbenzene	5		<5.0	<5.0	<5.0
1,3-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,4-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dichlorobenzene	3		<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane	0.04		<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5		<5.0	<5.0	<5.0
1,2-Dibromoethane	0.0006		<5.0	<5.0	<5.0
Methyl tert-butyl ether	10		<5.0	<5.0	<5.0
Methylcyclohexane	-		<5.0	<5.0	<5.0

NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
ug/L	Micrograms per liter.
J	Estimated value.
B	Non-detect at laboratory Reporting Limit due to associated blank contamination.
-	Not available.
	Compound concentration exceeds SGV.

Table 10. Concentrations of Volatile Organic Compounds in Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	NYSDOH Guidance [1] (ug/m^3)	Sample ID:	IA-1	Rep042009	IA-2	IA-3
		Sample Date:	4/20/2009	4/20/2009 IA-1 Duplicate	4/20/2009	4/20/2009
Freon 12	-		<18	<17	**2.2**	**2.7**
Chloromethane	-		<7.4	<6.9	**1.2**	**1.4**
Vinyl Chloride	-		<9.2	<8.6	<0.60	<0.82
Bromomethane	-		<14	<13	<0.91	<1.2
Chloroethane	-		<9.4	<8.9	<0.62	<0.85
Freon 11	-		<20	<19	**3.3**	**3.4**
Freon 113	-		<27	<26	<1.8	<2.5
1,1-Dichloroethene	-		<14	<13	<0.93	<1.3
Acetone	-		**21000 EJ**	**21000 EJ**	**660 EJ**	**920 EJ**
Carbon Disulfide	-		<56	<52	<3.6	<5.0
Methylene Chloride	60		<25	<23	<1.6	<2.2
Methyl tert-butyl ether	-		<13	<12	<0.84	<1.2
trans-1,2-Dichloroethene	-		<14	<13	<0.93	<1.3
1,1-Dichloroethane	-		<14	<14	<0.95	<1.3
2-Butanone (Methyl Ethyl Ketone)	-		<10	<9.9	**1.6**	**1.9**
cis-1,2-Dichloroethene	-		<14	<13	<0.93	<1.3
Chloroform	-		<17	<16	<1.1	<1.6
1,1,1-Trichloroethane	-		<20	<18	<1.3	<1.8
Cyclohexane	-		<12	<12	**2.8**	**3.0**
Carbon Tetrachloride	-		<22	<21	<1.5	<2.0
Benzene	-		<11	<11	**0.94**	**1.3**
1,2-Dichloroethane	-		<14	<14	<0.95	<1.3
Trichloroethene	5		<3.8	<3.6	<1.2	<1.7
1,2-Dichloropropane	-		<16	<16	<1.1	<1.5
Bromodichloromethane	-		<24	<22	<1.6	<2.2
cis-1,3-Dichloropropene	-		<16	<15	<1.1	<1.5
4-Methyl-2-pentanone	-		<15	<14	<0.96	<1.3
Toluene	-		<13	<13	**1.5**	**1.7**
trans-1,3-Dichloropropene	-		<16	<15	<1.1	<1.5
1,1,2-Trichloroethane	-		<20	<18	<1.3	<1.8
Tetrachloroethene	100		<24	<23	<1.6	<2.2
2-Hexanone	-		<73	<69	<4.8	<6.6
Dibromochloromethane	-		<30	<29	<2.0	<2.7
1,2-Dibromoethane (EDB)	-		<28	<26	<1.8	<2.5
Chlorobenzene	-		<16	<15	<1.1	<1.5
Ethyl Benzene	-		<16	<14	<1.0	<1.4
m,p-Xylene	-		<16	<14	**1.7**	**2.6**
o-Xylene	-		<16	<14	<1.0	<1.4
Styrene	-		<15	<14	<1.0	<1.4
Bromoform	-		<37	<35	<2.4	<3.3
Cumene	-		<18	<16	<1.2	<1.6
1,1,2,2-Tetrachloroethane	-		<24	<23	<1.6	<2.2
1,3-Dichlorobenzene	-		<22	<20	<1.4	<1.9
1,4-Dichlorobenzene	-		<22	<20	<1.4	<1.9
1,2-Dichlorobenzene	-		<22	<20	<1.4	<1.9
1,2,4-Trichlorobenzene	-		<130 J	<120 J	<8.7 J	<12 J
Methyl Acetate	-		<54 J	<51 J	<3.5 J	<4.9 J
Methylcyclohexane	-		<72	<67	<4.7	<6.5
1,2-Dibromo-3-chloropropane	-		<170	<160	<11	<16

1 Table 3.1 - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).

NYSDOH New York State Department of Health.
ug/m^3 Micrograms per cubic meter.
E Exceeds instrument calibration range.
J Estimated value.
Bold Indicates detection above laboratory Reporting Limit.
Compound concentration exceeds air guideline value.

Table 10. Concentrations of Volatile Organic Compounds in Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	NYSDOH Guidance [1] (ug/m^3)	Sample ID: / Sample Date:	IA-4 4/20/2009	IA-5 4/20/2009	IA-6 4/20/2009	IA-7 4/20/2009
Freon 12	-		<5.6	<5.4	<5.5	<8.6
Chloromethane	-		<2.4	<2.2	<2.3	<3.6
Vinyl Chloride	-		<2.9	<2.8	<2.9	<4.5
Bromomethane	-		<4.4	<4.2	<4.3	<6.8
Chloroethane	-		<3.0	<2.9	<3.0	<4.6
Freon 11	-		**16**	**14**	**10**	<9.8
Freon 113	-		<8.7	<8.4	<8.6	<13
1,1-Dichloroethene	-		<4.5	<4.3	<4.4	<6.9
Acetone	-		**3400 EJ**	**3300 EJ**	**4100 EJ**	**4300 EJ**
Carbon Disulfide	-		<18	<17	<17	<27
Methylene Chloride	60		<7.9	<7.6	<7.8	<12
Methyl tert-butyl ether	-		<4.1	<3.9	<4.0	<6.3
trans-1,2-Dichloroethene	-		<4.5	<4.3	<4.4	<6.9
1,1-Dichloroethane	-		<4.6	<4.4	<4.5	<7.1
2-Butanone (Methyl Ethyl Ketone)	-		**4.9**	**3.6**	<3.3	**7.8**
cis-1,2-Dichloroethene	-		<4.5	<4.3	<4.4	<6.9
Chloroform	-		<5.6	<5.3	<5.5	<8.5
1,1,1-Trichloroethane	-		<6.2	<5.9	<6.1	<9.5
Cyclohexane	-		**6.3**	**22**	<3.8	<6.0
Carbon Tetrachloride	-		<7.2	<6.8	<7.0	<11
Benzene	-		<3.6	**3.8**	**5.9**	<5.6
1,2-Dichloroethane	-		<4.6	<4.4	<4.5	<7.1
Trichloroethene	5		<1.2	<1.2	<1.2	<1.9
1,2-Dichloropropane	-		<5.3	<5.0	<5.2	<8.1
Bromodichloromethane	-		<7.6	<7.3	<7.5	<12
cis-1,3-Dichloropropene	-		<5.2	<4.9	<5.1	<7.9
4-Methyl-2-pentanone	-		<4.7	<4.5	<4.6	<7.2
Toluene	-		<4.3	<4.1	<4.2	<6.6
trans-1,3-Dichloropropene	-		<5.2	<4.9	<5.1	<7.9
1,1,2-Trichloroethane	-		<6.2	<5.9	<6.1	<9.5
Tetrachloroethene	100		<7.7	<7.4	<7.6	<12
2-Hexanone	-		<23	<22	<23	<36
Dibromochloromethane	-		<9.7	<9.3	<9.5	<15
1,2-Dibromoethane (EDB)	-		<8.8	<8.4	<8.6	<13
Chlorobenzene	-		<5.2	<5.0	<5.2	<8.0
Ethyl Benzene	-		<4.9	<4.7	<4.9	<7.6
m,p-Xylene	-		**5.7**	**5.0**	<4.9	<7.6
o-Xylene	-		<5.0	<4.7	<4.9	<7.6
Styrene	-		<4.8	<4.6	<4.8	<7.4
Bromoform	-		<12	<11	<12	<18
Cumene	-		<5.6	<5.4	<5.5	<8.6
1,1,2,2-Tetrachloroethane	-		<7.8	<7.5	<7.7	<12
1,3-Dichlorobenzene	-		<6.8	<6.6	<6.7	<10
1,4-Dichlorobenzene	-		<6.8	<6.6	**7.5**	<10
1,2-Dichlorobenzene	-		<6.8	<6.6	<6.7	<10
1,2,4-Trichlorobenzene	-		<42 J	<40 J	<42 J	<65 J
Methyl Acetate	-		<17 J	<16 J	<17 J	<26 J
Methylcyclohexane	-		<23	<22	<22	<35
1,2-Dibromo-3-chloropropane	-		<55	<53	<54	<84

1	Table 3.1 - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
NYSDOH	New York State Department of Health.
ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.
	Compound concentration exceeds air guideline value.

Table 10. Concentrations of Volatile Organic Compounds in Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	NYSDOH Guidance [1] (ug/m^3)	Sample ID: / Sample Date:	IA-8 4/20/2009	IA-9 4/21/2009
Freon 12	-		<5.3	**2.2**
Chloromethane	-		<2.2	**3.4**
Vinyl Chloride	-		<2.7	<0.45
Bromomethane	-		<4.2	**0.68**
Chloroethane	-		<2.8	**0.57**
Freon 11	-		<6.0	**15**
Freon 113	-		<8.2	<1.3
1,1-Dichloroethene	-		<4.2	<0.69
Acetone	-		**3500 EJ**	**630 EJ**
Carbon Disulfide	-		<17	<2.7
Methylene Chloride	60		<7.4	**1.8**
Methyl tert-butyl ether	-		<3.8	<0.63
trans-1,2-Dichloroethene	-		<4.2	<0.69
1,1-Dichloroethane	-		<4.3	<0.71
2-Butanone (Methyl Ethyl Ketone)	-		**10**	**4.7 J**
cis-1,2-Dichloroethene	-		<4.2	<0.69
Chloroform	-		<5.2	<0.85
1,1,1-Trichloroethane	-		<5.8	<0.95
Cyclohexane	-		<3.7	<0.60
Carbon Tetrachloride	-		<6.7	<1.1
Benzene	-		<3.4	**1.7**
1,2-Dichloroethane	-		<4.3	<0.71
Trichloroethene	5		<1.2	<0.94
1,2-Dichloropropane	-		<4.9	<0.81
Bromodichloromethane	-		<7.2	<1.2
cis-1,3-Dichloropropene	-		<4.8	<0.79
4-Methyl-2-pentanone	-		<4.4	**8.0 J**
Toluene	-		<4.0	**5.4**
trans-1,3-Dichloropropene	-		<4.8	<0.79
1,1,2-Trichloroethane	-		<5.8	<0.95
Tetrachloroethene	100		<7.2	<1.2
2-Hexanone	-		<22	<3.6
Dibromochloromethane	-		<9.1	<1.5
1,2-Dibromoethane (EDB)	-		<8.2	<1.3
Chlorobenzene	-		<4.9	<0.80
Ethyl Benzene	-		<4.6	**1.2**
m,p-Xylene	-		**5.1**	**3.4**
o-Xylene	-		<4.6	**1.1**
Styrene	-		<4.6	<0.74
Bromoform	-		<11	<1.8
Cumene	-		<5.2	<0.86
1,1,2,2-Tetrachloroethane	-		<7.3	<1.2
1,3-Dichlorobenzene	-		<6.4	<1.0
1,4-Dichlorobenzene	-		<6.4	**12**
1,2-Dichlorobenzene	-		<6.4	<1.0
1,2,4-Trichlorobenzene	-		<40 J	<6.5 J
Methyl Acetate	-		<16 J	<2.6 J
Methylcyclohexane	-		<21	<3.5
1,2-Dibromo-3-chloropropane	-		<52	<8.4

1	Table 3.1 - NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).
NYSDOH	New York State Department of Health.
ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.
	Compound concentration exceeds air guideline value.

Table 11. Concentrations of Volatile Organic Compounds in Co-Located Sub-Slab Soil Vapor Samples and Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID: / Sample Date:	SS-1 3/16/2009	IA-1 4/20/2009	SS-2 3/16/2009	IA-2 4/20/2009
Freon 12		<160	<18	<66	**2.2**
Chloromethane		<260	<7.4	<110	**1.2**
Vinyl Chloride		<81	<9.2	<34	<0.60
Bromomethane		<120	<14	<52	<0.91
Chloroethane		<83	<9.4	<35	<0.62
Freon 11		<180	<20	<75	**3.3**
Freon 113		<240	<27	**3300**	<1.8
1,1-Dichloroethene		**140**	<14	<53	<0.93
Acetone		**1400**	**21000 EJ**	**820**	**660 EJ**
Carbon Disulfide		<98	<56	<42	<3.6
Methylene Chloride		<110	<25	<46	<1.6
Methyl tert-butyl ether		<110	<13	<48	<0.84
trans-1,2-Dichloroethene		<120	<14	<53	<0.93
1,1-Dichloroethane		**780**	<14	**130**	<0.95
2-Butanone (Methyl Ethyl Ketone)		<93	<10	<40	**1.6**
cis-1,2-Dichloroethene		**620**	<14	<53	<0.93
Chloroform		<150	<17	<65	<1.1
1,1,1-Trichloroethane		**50000**	<20	**910**	<1.3
Cyclohexane		<110	<12	<46	**2.8**
Carbon Tetrachloride		<200	<22	<84	<1.5
Benzene		<100	<11	<43	**0.94**
1,2-Dichloroethane		<130	<14	<54	<0.95
Trichloroethene		**32000**	<3.8	**340**	<1.2
1,2-Dichloropropane		<150	<16	<62	<1.1
Bromodichloromethane		<210	<24	<90	<1.6
cis-1,3-Dichloropropene		<140	<16	<61	<1.1
4-Methyl-2-pentanone		<130	<15	<55	<0.96
Toluene		<120	<13	<50	**1.5**
trans-1,3-Dichloropropene		<140	<16	<61	<1.1
1,1,2-Trichloroethane		<170	<20	<73	<1.3
Tetrachloroethene		**51000**	<24	**19000**	<1.6
2-Hexanone		<520	<73	<220	<4.8
Dibromochloromethane		<270	<30	<110	<2.0
1,2-Dibromoethane (EDB)		<240	<28	<100	<1.8
Chlorobenzene		<140	<16	<62	<1.1
Ethyl Benzene		<140	<16	<58	<1.0
m,p-Xylene		<140	<16	<58	**1.7**
o-Xylene		<140	<16	<58	<1.0
Styrene		<130	<15	<57	<1.0
Bromoform		<330	<37	<140	<2.4
Cumene		<160	<18	<66	<1.2
1,1,2,2-Tetrachloroethane		<220	<24	<92	<1.6
1,3-Dichlorobenzene		<190	<22	<80	<1.4
1,4-Dichlorobenzene		<190	<22	<80	<1.4
1,2-Dichlorobenzene		<190	<22	<80	<1.4
1,2,4-Trichlorobenzene		<940	<130 J	<400	<8.7 J
Methyl Acetate		<960	<54 J	<410	<3.5 J
Methylcyclohexane		<510	<72	<220	<4.7
1,2-Dibromo-3-chloropropane		<1200	<170	<520	<11

ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 11. Concentrations of Volatile Organic Compounds in Co-Located Sub-Slab Soil Vapor Samples and Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID: / Sample Date:	SS-3 3/16/2009	IA-3 4/20/2009	SS-4 3/16/2009	IA-4 4/20/2009
Freon 12		<28	**2.7**	<31	<5.6
Chloromethane		<46	**1.4**	<52	<2.4
Vinyl Chloride		<14	<0.82	<16	<2.9
Bromomethane		<22	<1.2	<24	<4.4
Chloroethane		<15	<0.85	<17	<3.0
Freon 11		<31	**3.4**	<35	**16**
Freon 113		**2300**	<2.5	**1200**	<8.7
1,1-Dichloroethene		<22	<1.3	<25	<4.5
Acetone		**140**	**920 EJ**	**290**	**3400 EJ**
Carbon Disulfide		<17	<5.0	<20	<18
Methylene Chloride		<19	<2.2	<22	<7.9
Methyl tert-butyl ether		<20	<1.2	<23	<4.1
trans-1,2-Dichloroethene		<22	<1.3	<25	<4.5
1,1-Dichloroethane		**61**	<1.3	**78**	<4.6
2-Butanone (Methyl Ethyl Ketone)		<16	**1.9**	<18	**4.9**
cis-1,2-Dichloroethene		<22	<1.3	<25	<4.5
Chloroform		<27	<1.6	<31	<5.6
1,1,1-Trichloroethane		**1900**	<1.8	**3400**	<6.2
Cyclohexane		<19	**3.0**	<22	**6.3**
Carbon Tetrachloride		<35	<2.0	<40	<7.2
Benzene		<18	**1.3**	<20	<3.6
1,2-Dichloroethane		<23	<1.3	<25	<4.6
Trichloroethene		**1000**	<1.7	**580**	<1.2
1,2-Dichloropropane		<26	<1.5	<29	<5.3
Bromodichloromethane		<38	<2.2	<42	<7.6
cis-1,3-Dichloropropene		<25	<1.5	<28	<5.2
4-Methyl-2-pentanone		<23	<1.3	<26	<4.7
Toluene		<21	**1.7**	<24	<4.3
trans-1,3-Dichloropropene		<25	<1.5	<28	<5.2
1,1,2-Trichloroethane		<30	<1.8	<34	<6.2
Tetrachloroethene		**9200**	<2.2	**8800**	<7.7
2-Hexanone		<92	<6.6	<100	<23
Dibromochloromethane		<48	<2.7	<54	<9.7
1,2-Dibromoethane (EDB)		<43	<2.5	<48	<8.8
Chlorobenzene		<26	<1.5	<29	<5.2
Ethyl Benzene		<24	<1.4	<27	<4.9
m,p-Xylene		<24	**2.6**	<27	**5.7**
o-Xylene		<24	<1.4	<27	<5.0
Styrene		<24	<1.4	<27	<4.8
Bromoform		<58	<3.3	<65	<12
Cumene		<28	<1.6	<31	<5.6
1,1,2,2-Tetrachloroethane		<38	<2.2	<43	<7.8
1,3-Dichlorobenzene		<34	<1.9	<38	<6.8
1,4-Dichlorobenzene		<34	<1.9	<38	<6.8
1,2-Dichlorobenzene		<34	<1.9	<38	<6.8
1,2,4-Trichlorobenzene		<170	<12 J	<190	<42 J
Methyl Acetate		<170	<4.9 J	<190	<17 J
Methylcyclohexane		<90	<6.5	<100	<23
1,2-Dibromo-3-chloropropane		<220	<16	<240	<55

ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 11. Concentrations of Volatile Organic Compounds in Co-Located Sub-Slab Soil Vapor Samples and Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID: / Sample Date:	SS-5 3/16/2009	IA-5 4/20/2009	SS-6 03/09/2009	IA-6 4/20/2009
Freon 12		**2.9**	<5.4	**2.9**	<5.5
Chloromethane		<1.2	<2.2	<1.1	<2.3
Vinyl Chloride		**1.6**	<2.8	<1.3	<2.9
Bromomethane		<2.2	<4.2	<2.0	<4.3
Chloroethane		<1.5	<2.9	<1.4	<3.0
Freon 11		**7.8**	**14**	**4.0**	**10**
Freon 113		**1100**	<8.4	**91**	<8.6
1,1-Dichloroethene		<2.3	<4.3	<2.0	<4.4
Acetone		<6.8	**3300 EJ**	**820 EJ**	**4100 EJ**
Carbon Disulfide		<8.9	<17	**11**	<17
Methylene Chloride		<4.0	<7.6	<3.6	<7.8
Methyl tert-butyl ether		<2.0	<3.9	<1.9	<4.0
trans-1,2-Dichloroethene		<2.2	<4.3	<2.0	<4.4
1,1-Dichloroethane		<2.3	<4.4	<2.1	<4.5
2-Butanone (Methyl Ethyl Ketone)		**15**	**3.6**	**17**	<3.3
cis-1,2-Dichloroethene		<2.2	<4.3	<2.0	<4.4
Chloroform		**3.0**	<5.3	<2.5	<5.5
1,1,1-Trichloroethane		**25**	<5.9	**10**	<6.1
Cyclohexane		<2.0	**22**	<1.8	<3.8
Carbon Tetrachloride		<3.6	<6.8	<3.2	<7.0
Benzene		**2.4**	**3.8**	**3.2**	**5.9**
1,2-Dichloroethane		<2.3	<4.4	<2.1	<4.5
Trichloroethene		**31**	<1.2	<2.8	<1.2
1,2-Dichloropropane		<2.6	<5.0	<2.4	<5.2
Bromodichloromethane		<3.8	<7.3	<3.5	<7.5
cis-1,3-Dichloropropene		<2.6	<4.9	<2.3	<5.1
4-Methyl-2-pentanone		<2.3	<4.5	<2.1	<4.6
Toluene		<2.1	<4.1	**5.1**	<4.2
trans-1,3-Dichloropropene		<2.6	<4.9	<2.3	<5.1
1,1,2-Trichloroethane		<3.1	<5.9	<2.8	<6.1
Tetrachloroethene		**870**	<7.4	**120**	<7.6
2-Hexanone		<12	<22	<10	<23
Dibromochloromethane		<4.8	<9.3	<4.4	<9.5
1,2-Dibromoethane (EDB)		<4.4	<8.4	<4.0	<8.6
Chlorobenzene		<2.6	<5.0	<2.4	<5.2
Ethyl Benzene		<2.5	<4.7	<2.2	<4.9
m,p-Xylene		<2.5	**5.0**	**6.8**	<4.9
o-Xylene		<2.5	<4.7	**2.5**	<4.9
Styrene		<2.4	<4.6	<2.2	<4.8
Bromoform		<5.9	<11	<5.3	<12
Cumene		<2.8	<5.4	**10**	<5.5
1,1,2,2-Tetrachloroethane		<3.9	<7.5	<3.5	<7.7
1,3-Dichlorobenzene		<3.4	<6.6	<3.1	<6.7
1,4-Dichlorobenzene		<3.4	<6.6	<3.1	**7.5**
1,2-Dichlorobenzene		<3.4	<6.6	<3.1	<6.7
1,2,4-Trichlorobenzene		<21	<40 J	<19	<42 J
Methyl Acetate		<8.6	<16 J	<7.8 J	<17 J
Methylcyclohexane		<11	<22	<10	<22
1,2-Dibromo-3-chloropropane		<28	<53	<25 J	<54

ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 11. Concentrations of Volatile Organic Compounds in Co-Located Sub-Slab Soil Vapor Samples and Indoor Air Quality Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/m^3)	Sample ID: / Sample Date:	SS-7 03/09/2009	IA-7 4/20/2009	SS-8 03/09/2009	IA-8 4/20/2009
Freon 12		**3.5**	<8.6	**3.0**	<5.3
Chloromethane		<1.2	<3.6	<1.1	<2.2
Vinyl Chloride		<1.4	<4.5	<1.3	<2.7
Bromomethane		<2.2	<6.8	<2.0	<4.2
Chloroethane		<1.5	<4.6	<1.4	<2.8
Freon 11		**6.0**	<9.8	**3.3**	<6.0
Freon 113		<4.3	<13	<4.0	<8.2
1,1-Dichloroethene		<2.2	<6.9	<2.1	<4.2
Acetone		**390**	**4300 EJ**	**1100 EJ**	**3500 EJ**
Carbon Disulfide		**14**	<27	<8.2	<17
Methylene Chloride		<3.9	<12	<3.7	<7.4
Methyl tert-butyl ether		<2.0	<6.3	<1.9	<3.8
trans-1,2-Dichloroethene		<2.2	<6.9	<2.1	<4.2
1,1-Dichloroethane		<2.3	<7.1	<2.1	<4.3
2-Butanone (Methyl Ethyl Ketone)		**12**	**7.8**	**8.4**	**10**
cis-1,2-Dichloroethene		<2.2	<6.9	<2.1	<4.2
Chloroform		<2.7	<8.5	<2.6	<5.2
1,1,1-Trichloroethane		**180**	<9.5	**4.1**	<5.8
Cyclohexane		<1.9	<6.0	<1.8	<3.7
Carbon Tetrachloride		<3.5	<11	<3.3	<6.7
Benzene		**3.6**	<5.6	**2.0**	<3.4
1,2-Dichloroethane		<2.3	<7.1	<2.1	<4.3
Trichloroethene		<3.0	<1.9	**5.5**	<1.2
1,2-Dichloropropane		<2.6	<8.1	<2.4	<4.9
Bromodichloromethane		<3.8	<12	<3.5	<7.2
cis-1,3-Dichloropropene		<2.5	<7.9	<2.4	<4.8
4-Methyl-2-pentanone		<2.3	<7.2	<2.2	<4.4
Toluene		**13**	<6.6	**12**	<4.0
trans-1,3-Dichloropropene		<2.5	<7.9	<2.4	<4.8
1,1,2-Trichloroethane		<3.0	<9.5	<2.9	<5.8
Tetrachloroethene		**140**	<12	**150**	<7.2
2-Hexanone		<11	<36	<11	<22
Dibromochloromethane		**5.4**	<15	<4.5	<9.1
1,2-Dibromoethane (EDB)		<4.3	<13	<4.0	<8.2
Chlorobenzene		<2.6	<8.0	<2.4	<4.9
Ethyl Benzene		**32**	<7.6	**4.0**	<4.6
m,p-Xylene		**140**	<7.6	**11**	**5.1**
o-Xylene		**47**	<7.6	**4.4**	<4.6
Styrene		<2.4	<7.4	<2.2	<4.6
Bromoform		**7.3**	<18	<5.4	<11
Cumene		<2.8	<8.6	<2.6	<5.2
1,1,2,2-Tetrachloroethane		<3.8	<12	<3.6	<7.3
1,3-Dichlorobenzene		<3.4	<10	<3.2	<6.4
1,4-Dichlorobenzene		<3.4	<10	<3.2	<6.4
1,2-Dichlorobenzene		<3.4	<10	<3.2	<6.4
1,2,4-Trichlorobenzene		<21	<65 J	<20	<40 J
Methyl Acetate		<8.5 J	<26 J	<8.0 J	<16 J
Methylcyclohexane		<11	<35	<10	<21
1,2-Dibromo-3-chloropropane		<27 J	<84	<25 J	<52

ug/m^3	Micrograms per cubic meter.
E	Exceeds instrument calibration range.
J	Estimated value.
Bold	Indicates detection above laboratory Reporting Limit.

Table 12. Concentrations of Volatile Organic Compounds in Quality Assurance/Quality Control Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	Sample ID: / Sample Date:	FB031309 3/13/2009	TB031309 3/13/2009	FB031709 3/17/2009	TB031709 3/17/2009
Acetone		<10	<10	<10	<10
Dichlorodifluoromethane		<5.0	<5.0	<5.0	<5.0
Benzene		<5.0	<5.0	<5.0	<5.0
Bromodichloromethane		<5.0	<5.0	<5.0	<5.0
Bromoform		<5.0	<5.0	<5.0	<5.0
Bromomethane		<5.0	<5.0	<5.0	<5.0
Methyl Ethyl Ketone		<10	<10	<10	<10
Trichlorofluoromethane		<5.0	<5.0	<5.0	<5.0
Carbon disulfide		<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride		<5.0	<5.0	<5.0	<5.0
Chlorobenzene		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		<5.0	<5.0	<5.0	<5.0
Chloroethane		<5.0	<5.0	<5.0	<5.0
Chloroform		<5.0	<5.0	<5.0	<5.0
Chloromethane		<5.0	<5.0	<5.0	**1.7 JB**
Dibromochloromethane		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0
Methyl acetate		<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0
Ethylbenzene		<5.0	<5.0	<5.0	<5.0
2-Hexanone		<10	<10	<10	<10
Methylene Chloride		<5.0	<5.0	<5.0	<5.0
methyl isobutyl ketone		<10	<10	<10	<10
Styrene		<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		<5.0	<5.0	<5.0	<5.0
Toluene		<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<5.0
Trichloroethene		<5.0	<5.0	<5.0	<5.0
Vinyl chloride		<5.0	<5.0	<5.0	<5.0
Xylenes, Total		<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0
Cyclohexane		<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane		<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane		<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether		<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<5.0	<5.0	<5.0	<5.0

ug/L	Micrograms per liter.
J	Estimated value.
B	Detected in associated method blank.
Bold	Indicates detection above laboratory Method Detection Limit.

Table 12. Concentrations of Volatile Organic Compounds in Quality Assurance/Quality Control Samples, Target Rock Site, East Farmingdale, New York.

Compound (Units in ug/L)	Sample ID: / Sample Date:	TB031809 3/18/2009	TB031909 3/19/2009	TB032309 3/23/2009	FB032309 3/23/2009
Acetone		<10	<10	<10	<10
Dichlorodifluoromethane		<5.0	<5.0	<5.0	<5.0
Benzene		<5.0	<5.0	<5.0	<5.0
Bromodichloromethane		<5.0	<5.0	<5.0	<5.0
Bromoform		<5.0	<5.0	<5.0	<5.0
Bromomethane		<5.0	<5.0	<5.0	<5.0
Methyl Ethyl Ketone		<10	<10	<10	<10
Trichlorofluoromethane		<5.0	<5.0	<5.0	<5.0
Carbon disulfide		<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride		<5.0	<5.0	<5.0	<5.0
Chlorobenzene		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		<5.0	<5.0	<5.0	<5.0
Chloroethane		<5.0	<5.0 J	<5.0 J	<5.0 J
Chloroform		<5.0	<5.0	<5.0	**2.9 J**
Chloromethane		<5.0	<5.0	<5.0	<5.0
Dibromochloromethane		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0
Methyl acetate		<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0
Ethylbenzene		<5.0	<5.0	<5.0	<5.0
2-Hexanone		<10	<10	<10	<10
Methylene Chloride		<5.0	<5.0	<5.0	**1.3 JB**
methyl isobutyl ketone		<10	<10	<10	<10
Styrene		<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		<5.0	<5.0	<5.0	<5.0
Toluene		<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<5.0
Trichloroethene		<5.0	<5.0	<5.0	<5.0
Vinyl chloride		<5.0	<5.0	<5.0	<5.0
Xylenes, Total		<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0
Cyclohexane		<5.0	<5.0	<5.0	**3.4 J**
trans-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-Chloropropane		<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane		<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether		<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<5.0	<5.0	<5.0	<5.0

ug/L	Micrograms per liter.
J	Estimated value.
B	Detected in associated method blank.
Bold	Indicates detection above laboratory Method Detection Limit.

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Table 13. Concentrations of Tentatively Identified Compounds in Soil Samples Collected from Soil Borings, Target Rock Site, East Farmingdale, New York.

TIC ID (Units in ug/kg)	Sample ID:	AGW-10(13-15)
	Sample Depth (ft bls):	13 - 15
	Sample Date:	3/13/2009
Ethyl Acetate		37 JN
Unknown		3.1 J

TIC	Tentatively Identified Compound.
ID	Identification.
ug/kg	Micrograms per kilogram.
J	Estimated value.
JN	Presumptive evidence indicates the constituent is present and the value is estimated.
ft bls	Feet below land surface.

Table 14. Concentrations of Tentatively Identified Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

TIC ID (Units in ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-1 (34-35) 34 - 35 3/17/2009	AGW-1 (54-55) 54 - 55 3/17/2009	AGW-2 (34-35) 34 - 35 3/18/2009	AGW-2 (44-45) 44 - 45 3/18/2009
1-Butene		18 JN	--	--	--
1-Hexene		--	--	--	--
1-Pentene		--	--	--	--
2-Hexene		--	--	--	--
2-Pentene, (Z)-		--	--	--	--
Benzene, (1-methylethyl)-		--	--	--	--
Benzene, 1-ethyl-2-methyl-		--	--	--	--
Benzene, 1,2,3-trimethyl-		--	--	--	--
Benzene, 1,2,4-trimethyl-		--	--	--	--
Benzene, 1,3,5-trimethyl-		--	--	--	--
Cyclopropane, 1,2-dimethyl-, trans-		--	--	--	--
Ethane, 1,2-dichloro-1,1,2-trifluoro-		--	--	--	17 JN
Ethene, chlorotrifluoro-		--	--	--	--
Indane		--	--	--	--
Indene		--	--	--	--
Naphthalene		--	--	--	--
Napthalene, 1-methyl-		--	--	--	--
Napthalene, 2-methyl-		--	--	--	--
Napthalene, 1,8-dimethyl-		--	--	--	--
Propene		--	--	--	--
Unknown Alkene		5.4 J	--	14 J	--
Unknown Alkene		--	--	16 J	--
Unknown Alkene		--	--	29 J	--
Unknown Cycloalkane		--	--	--	--
Unknown		0.65 J	5.0 J	--	--

TIC	Tentatively Identified Compound.
ID	Identification.
ug/L	Micrograms per liter.
J	Estimated value.
JN	Presumptive evidence indicates the constituent is present and the value is estimated.
ft bls	Feet below land surface.
--	Not detected.

Table 14. Concentrations of Tentatively Identified Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

TIC ID (Units in ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-7 (34-35) 34 - 35 3/18/2009	AGW-8 (34-35) 34 - 35 3/17/2009	AGW-9(10-11) 10 - 11 3/13/2009	AGW-9(48-49) 48 - 49 3/13/2009
1-Butene		--	--	--	59 JN
1-Hexene		--	--	--	50 JN
1-Pentene		--	--	--	92 JN
2-Hexene		--	--	--	22 JN
2-Pentene, (Z)-		--	--	--	44 JN
Benzene, (1-methylethyl)-		--	--	2.4 JN	--
Benzene, 1-ethyl-2-methyl-		--	--	14 JN	--
Benzene, 1,2,3-trimethyl-		--	--	2.9 JN	--
Benzene, 1,2,4-trimethyl-		--	--	11 JN	--
Benzene, 1,3,5-trimethyl-		--	--	5.8 JN	--
Cyclopropane, 1,2-dimethyl-, trans-		--	--	--	54 JN
Ethane, 1,2-dichloro-1,1,2-trifluoro-		--	--	--	--
Ethene, chlorotrifluoro-		--	--	--	--
Indane		--	--	9.5 JN	--
Indene		--	--	2.9 JN	--
Naphthalene		--	--	15	--
Napthalene, 1-methyl-		--	--	1.8 JN	--
Napthalene, 2-methyl-		--	--	2.6 JN	--
Napthalene, 1,8-dimethyl-		--	--	23 JN	--
Propene		24 JN	--	--	620 JN
Unknown Alkene		27 J	--	--	28 J
Unknown Alkene		--	--	--	--
Unknown Alkene		--	--	--	--
Unknown Cycloalkane		29 J	--	--	--
Unknown		--	6.1 J	--	54 J

TIC	Tentatively Identified Compound.
ID	Identification.
ug/L	Micrograms per liter.
J	Estimated value.
JN	Presumptive evidence indicates the constituent is present and the value is estimated.
ft bls	Feet below land surface.
--	Not detected.

Table 14. Concentrations of Tentatively Identified Compounds in Groundwater Samples Collected from Vertical Profile Borings, Target Rock Site, East Farmingdale, New York.

TIC ID (Units in ug/L)	Sample ID: / Sample Depth (ft bls): / Sample Date:	AGW-11 (10-11) 10 - 11 3/18/2009	AGW-11 (34-35) 34 - 35 3/18/2009
1-Butene		--	--
1-Hexene		--	--
1-Pentene		--	--
2-Hexene		--	--
2-Pentene, (Z)-		--	--
Benzene, (1-methylethyl)-		--	--
Benzene, 1-ethyl-2-methyl-		--	--
Benzene, 1,2,3-trimethyl-		--	--
Benzene, 1,2,4-trimethyl-		--	--
Benzene, 1,3,5-trimethyl-		--	--
Cyclopropane, 1,2-dimethyl-, trans-			--
Ethane, 1,2-dichloro-1,1,2-trifluoro-		14 JN	--
Ethene, chlorotrifluoro-		18 JN	--
Indane		--	--
Indene		--	--
Naphthalene		--	--
Napthalene, 1-methyl-		--	--
Napthalene, 2-methyl-		--	--
Napthalene, 1,8-dimethyl-		--	--
Propene		--	--
Unknown Alkene		--	--
Unknown Alkene		--	--
Unknown Alkene		--	--
Unknown Cycloalkane		--	--
Unknown		--	10 J

TIC	Tentatively Identified Compound.
ID	Identification.
ug/L	Micrograms per liter.
J	Estimated value.
JN	Presumptive evidence indicates the constituent is present and the value is estimated.
ft bls	Feet below land surface.
--	Not detected.

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Table 15. Summary of Chemical Properties for Constituents Exceeding Standards, Criteria, and Guidance (SCG) Values in Groundwater and Sub-Slab Soil Vapor, Target Rock Site, East Farmingdale, New York.

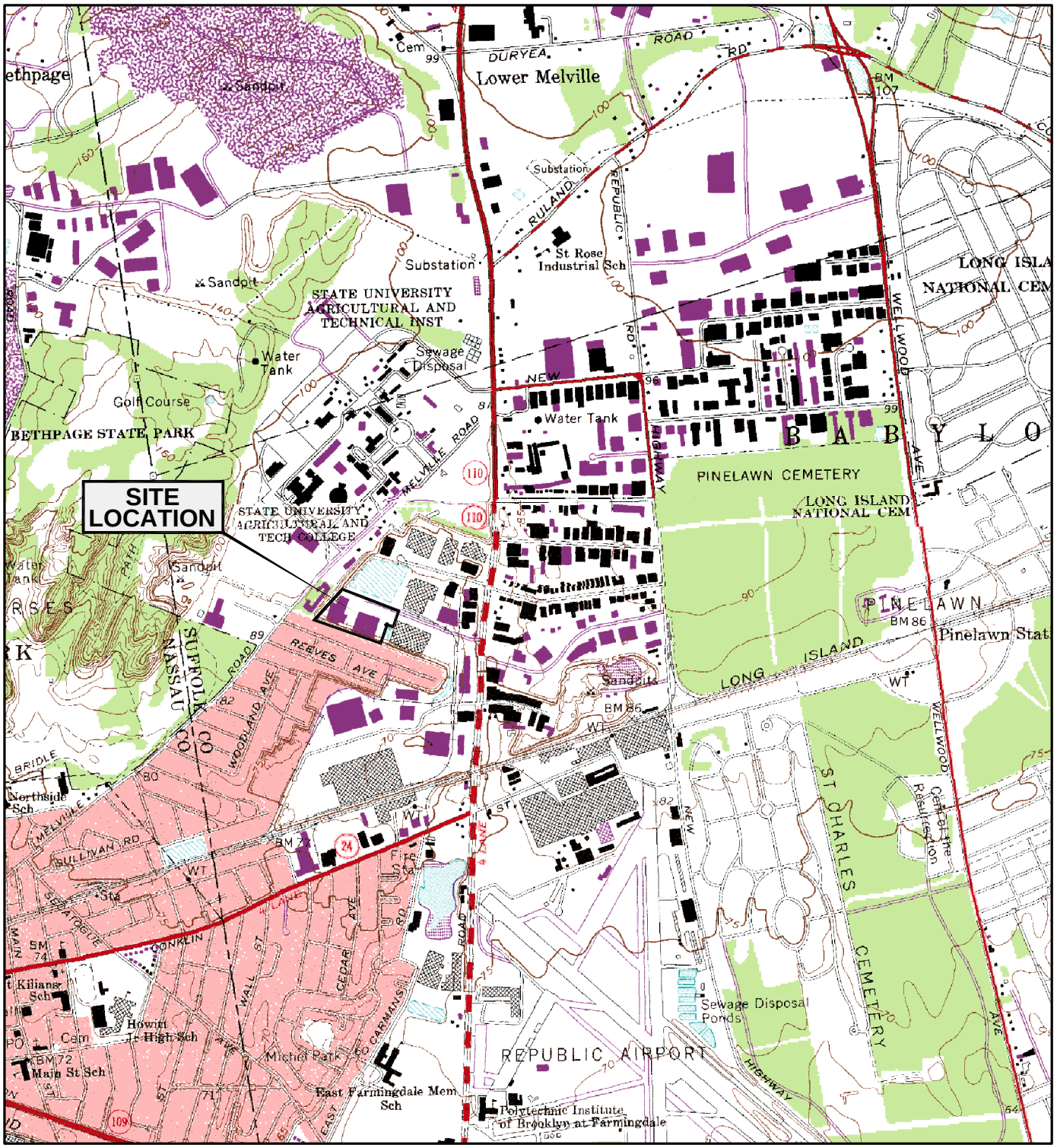
Constituent	Henry's Law Constant (atm-m^3/mol)	Vapor Pressure (mm Hg)	Log K_{ow}	Log K_{oc}	Water Solubility (mg/L)
Chlorinated Ethenes/Ethanes					
1,1,1-Trichloroethane	1.62E-02 (a)	1.24E+02 (a)	2.50E+00 (b)	2.18E+00 (a)	9.50E+02 (a)
1-1 Dichloroethane	5.87E-03 (a)	2.34E+02 (a)	1.79E+00 (b)	1.48E+00 (a)	5.06E+03 (a)
Tetrachloroethene	1.53E-02 (a)	2.00E+01 (a)	2.60E+00 (b)	2.42E+00 (a)	1.50E+02 (a)
Trichloroethene	9.10E-03 (a)	7.26E+01 (a)	2.38E+00 (b)	1.81E+00 (a)	1.10E+03 (a)
Freons					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	3.33E-01 (d)	2.70E+02 (d)	2.57E+00 (d)	2.59E+00 (d)	1.36E+02 (d)
Aromatic Hydrocarbons					
Ethylbenzene	8.68E-03 (c)	1.00E+01 (c)	3.15E+00 (c)	1.98E+00 (c)	1.52E+02 (c)
Toluene	6.74E-03 (a)	2.20E+01 (a)	2.13E+00 (b)	2.06E+00 (a)	4.90E+02 (a)
o-Xylene	5.35E-03 (a)	6.60E+00 (a)	2.95E+00 (b)	2.11E+00 (a)	2.13E+02 (a)
m-Xylene	6.30E-03 (a)	8.29E+00 (a)	3.20E+00 (c)	3.20E+00 (a)	1.73E+02 (a)
p-Xylene	6.30E-03 (a)	8.76E+00 (a)	3.18E+00 (c)	2.31E+00 (a)	2.00E+02 (a)

Definitions:

atm-m^3/mol	Atmospheres per meter cubed per mole.
mm Hg	Millimeters of mercury.
mg/L	Milligrams per liter.
Log K_{ow}	Logarithm of octanol-water partition coefficient.
Log K_{oc}	Logarithm of organic carbon partition coefficient.

Sources:

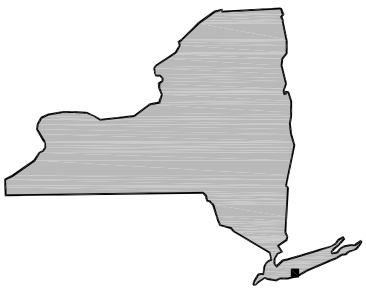
(a) Remediation Engineering, Suthan S. Suthersan, 1997
(b) Groundwater Treatment Technology, Second Edition, Evan K. Nyer, 1992
(c) Groundwater Chemicals Desk Reference, John H. Montgomery and Linda M. Welkom, 1990
(d) Groundwater Chemicals Desk Reference, Volume 2, John H. Montgomery, 1991



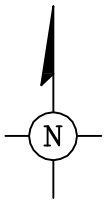
MAP SOURCE: USGS 7.5 MINUTE QUADRANGLES, HUNTINGTON, NY, 1979 AND AMITYVILLE, NY, 1979.

0 2000' 4000'

SCALE IN FEET



NEW YORK



TARGET ROCK SITE
EAST FARMINGDALE, NEW YORK

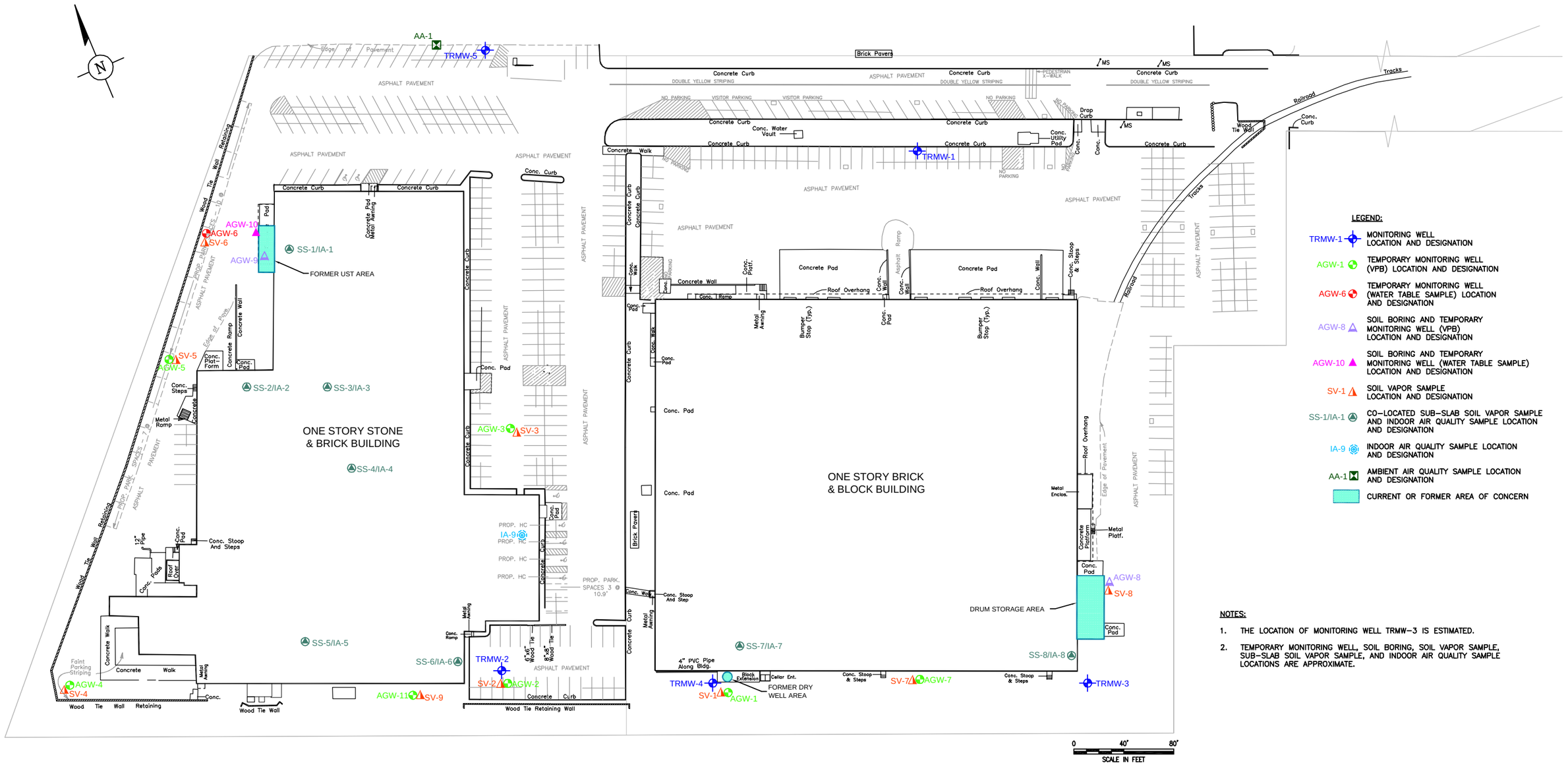
SITE LOCATION

ARCADIS

FIGURE 1

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:MW TM:CK LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\NY001490\0001\10005\RI Report\Figure 1.dwg LAYOUT: 1SAVED: 10/20/2009 10:58 AM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 10/28/2009 2:47 PM BY: SANCHEZ, ADRIAN

XREFS: IMAGES: PROJECTNAME: NY001490.0001.00001
AMITYVILLE.TIF
HUNTINGTON.TIF



LEGEND:

- TRMW-1 — MONITORING WELL LOCATION AND DESIGNATION
- AGW-1 — TEMPORARY MONITORING WELL (VPB) LOCATION AND DESIGNATION
- AGW-6 — TEMPORARY MONITORING WELL (WATER TABLE SAMPLE) LOCATION AND DESIGNATION
- AGW-8 — SOIL BORING AND TEMPORARY MONITORING WELL (VPB) LOCATION AND DESIGNATION
- AGW-10 — SOIL BORING AND TEMPORARY MONITORING WELL (WATER TABLE SAMPLE) LOCATION AND DESIGNATION
- SV-1 — SOIL VAPOR SAMPLE LOCATION AND DESIGNATION
- SS-1/IA-1 — CO-LOCATED SUB-SLAB SOIL VAPOR SAMPLE AND INDOOR AIR QUALITY SAMPLE LOCATION AND DESIGNATION
- IA-9 — INDOOR AIR QUALITY SAMPLE LOCATION AND DESIGNATION
- AA-1 — AMBIENT AIR QUALITY SAMPLE LOCATION AND DESIGNATION
- CURRENT OR FORMER AREA OF CONCERN

NOTES:

1. THE LOCATION OF MONITORING WELL TRMW-3 IS ESTIMATED.
2. TEMPORARY MONITORING WELL, SOIL BORING, SOIL VAPOR SAMPLE, SUB-SLAB SOIL VAPOR SAMPLE, AND INDOOR AIR QUALITY SAMPLE LOCATIONS ARE APPROXIMATE.

TARGET ROCK SITE
EAST FARMINGDALE, NEW YORK

REMEDIAL INVESTIGATION SAMPLE LOCATIONS

ARCADIS

FIGURE 2

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:MW TM:CK LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\NY001490\0001\00005\RI Report\Figure 2.dwg LAYOUT: 4 SAVED: 10/20/2009 2:06 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 10/28/2009 2:46 PM BY: SANCHEZ, ADRIAN
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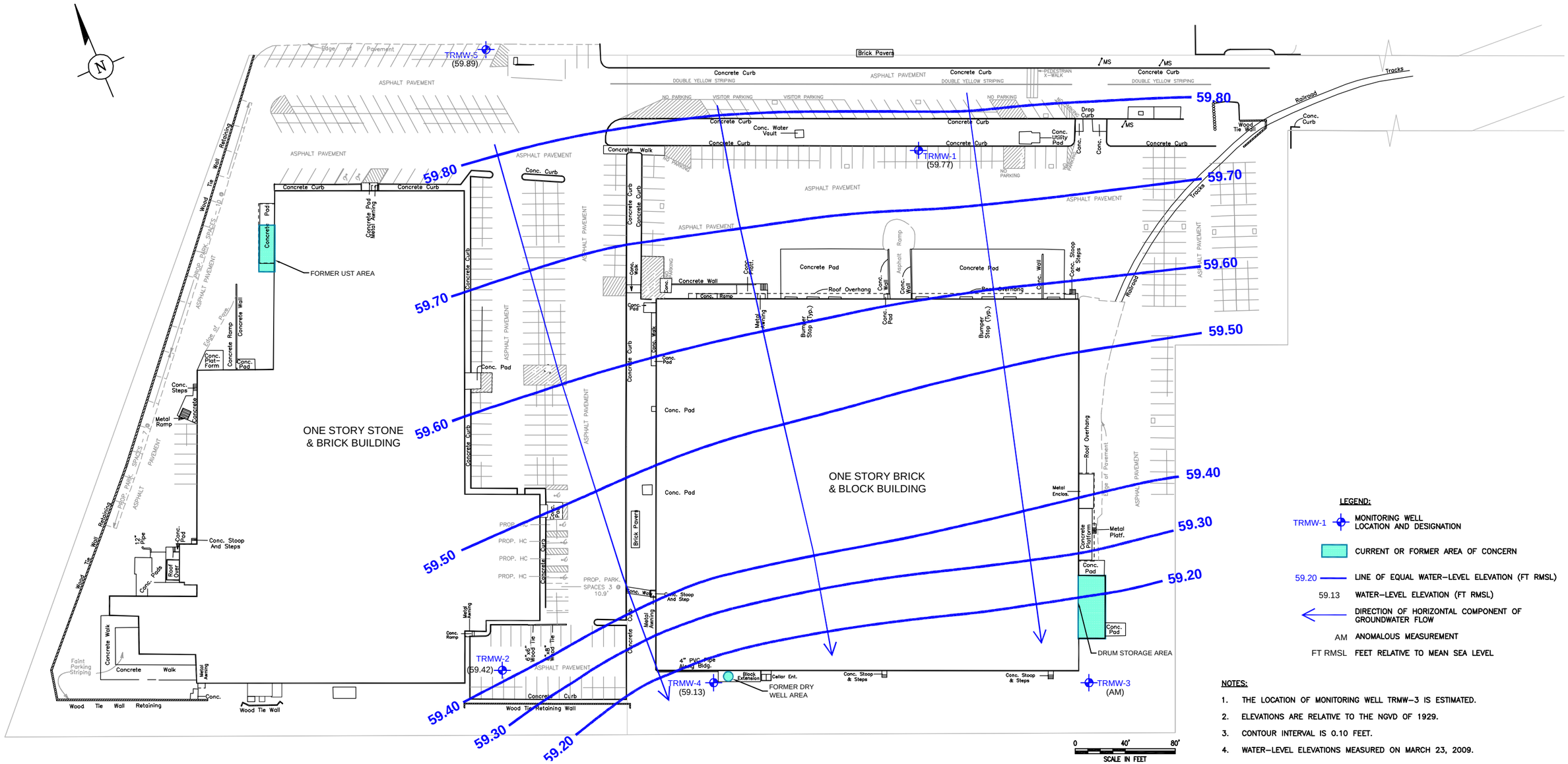
Basemap



LEGEND:

- TRMW-1 — MONITORING WELL LOCATION AND DESIGNATION
- CURRENT OR FORMER AREA OF CONCERN
- 59.20 — LINE OF EQUAL WATER-LEVEL ELEVATION (FT RMSL)
- 59.13 — WATER-LEVEL ELEVATION (FT RMSL)
- DIRECTION OF HORIZONTAL COMPONENT OF GROUNDWATER FLOW
- AM — ANOMALOUS MEASUREMENT
- FT RMSL — FEET RELATIVE TO MEAN SEA LEVEL

NOTES:

1. THE LOCATION OF MONITORING WELL TRMW-3 IS ESTIMATED.
2. ELEVATIONS ARE RELATIVE TO THE NGVD OF 1929.
3. CONTOUR INTERVAL IS 0.10 FEET.
4. WATER-LEVEL ELEVATIONS MEASURED ON MARCH 23, 2009.

TARGET ROCK SITE
EAST FARMINGDALE, NEW YORK

CONFIGURATION OF THE WATER TABLE AND GROUNDWATER FLOW DIRECTION MARCH 2009

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FIGURE 3

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:MW TM:CK LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville\NY\NY001490\0001\100005\RI Report\Figure 3.dwg LAYOUT: 4 SAVED: 10/20/2009 11:46 AM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 10/28/2009 2:46 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: NY001490.0001.00001
Basemap GWC 2009-03.jpg

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:MW TM:CK LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\NY0014900\0001\00005\RI Report\Figure 4.dwg LAYOUT: 4 SAVED: 10/20/2009 1:28 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 10/28/2009 2:45 PM BY: SANCHEZ, ADRIAN
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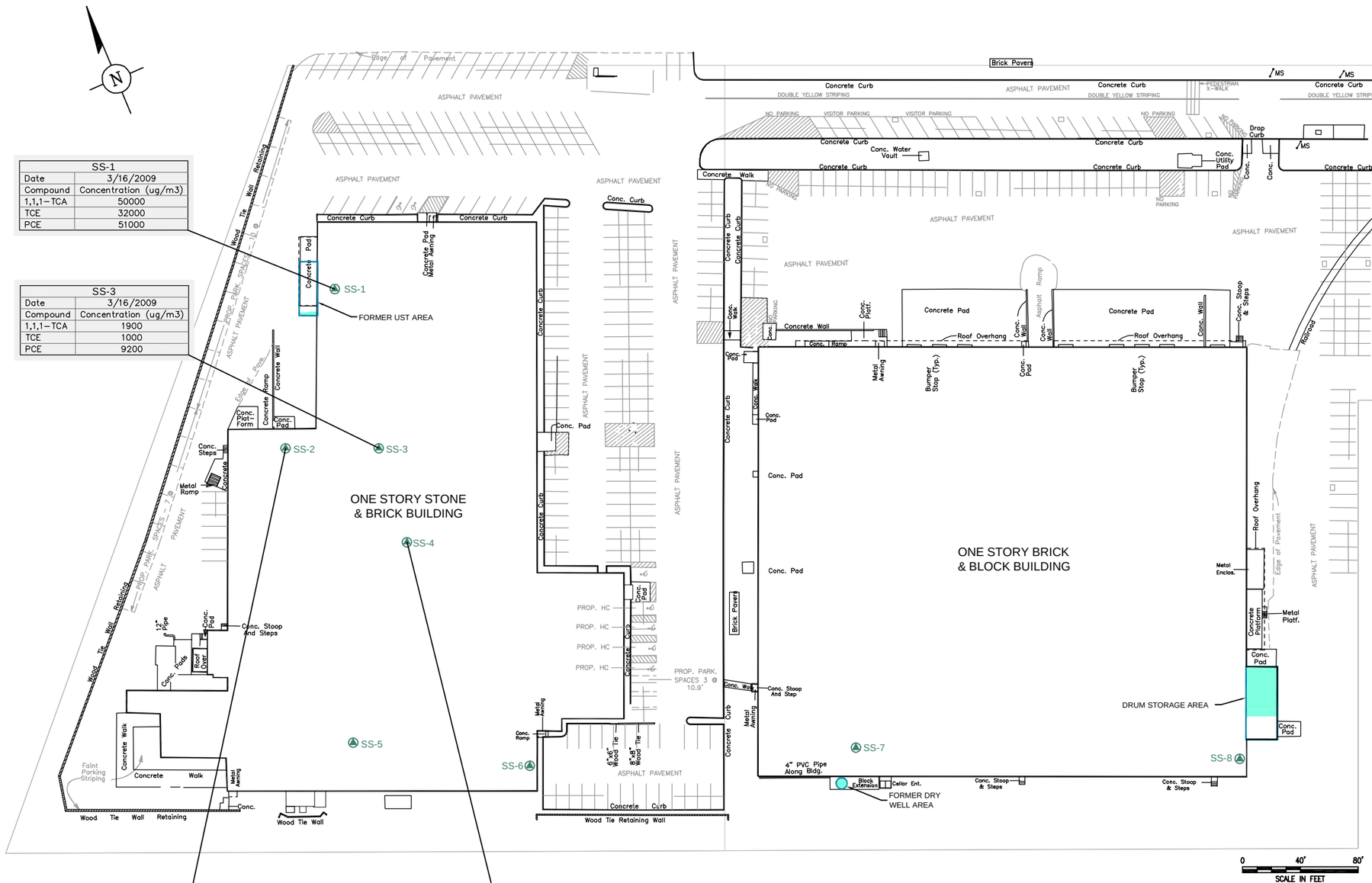


SS-1	
Date	3/16/2009
Compound	Concentration (ug/m3)
1,1,1-TCA	50000
TCE	32000
PCE	51000

SS-3	
Date	3/16/2009
Compound	Concentration (ug/m3)
1,1,1-TCA	1900
TCE	1000
PCE	9200

SS-2	
Date	3/16/2009
Compound	Concentration (ug/m3)
TCE	340
PCE	19000

SS-4	
Date	3/16/2009
Compound	Concentration (ug/m3)
1,1,1-TCA	3400
TCE	580
PCE	8800

LEGEND:

SS-1	SUB-SLAB SOIL VAPOR SAMPLE LOCATION AND DESIGNATION
	CURRENT OR FORMER AREA OF CONCERN
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE
PCE	TETRACHLOROETHENE
ug/m^3	MICROGRAMS PER CUBIC METER

NOTES:

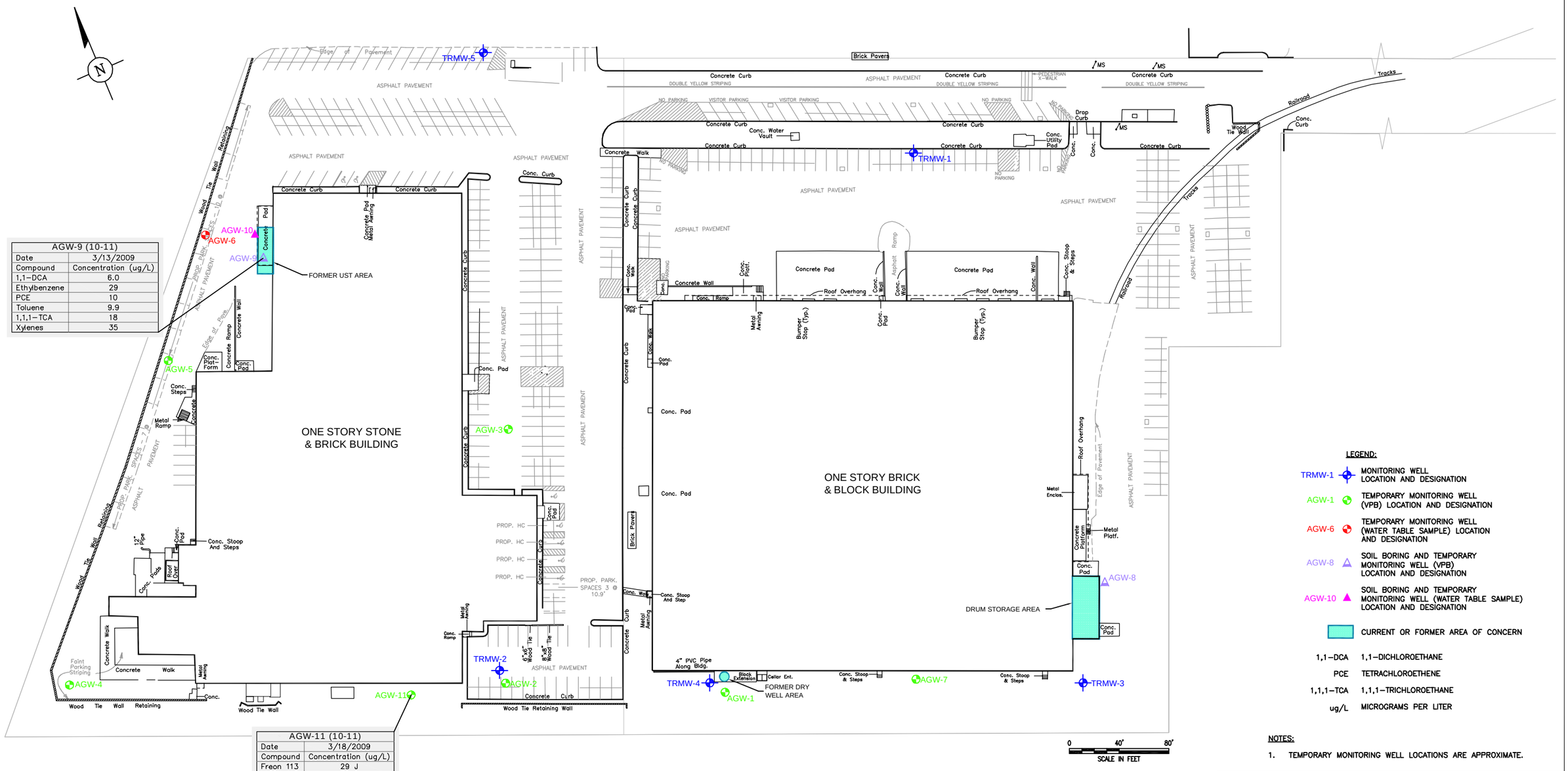
1. SUB-SLAB SOIL VAPOR SAMPLES WERE COLLECTED AT AN APPROXIMATE DEPTH OF 2 INCHES BELOW THE BOTTOM OF THE FLOOR SLAB.
2. SUB-SLAB SOIL VAPOR SAMPLE LOCATIONS ARE APPROXIMATE.

TARGET ROCK SITE
EAST FARMINGDALE, NEW YORK

VOLATILE ORGANIC COMPOUNDS IN SUB-SLAB SOIL VAPOR EXCEEDING SCGs

ARCADIS

FIGURE
4



AGW-9 (10-11)	
Date	3/13/2009
Compound	Concentration (ug/L)
1,1-DCA	6.0
Ethylbenzene	29
PCE	10
Toluene	9.9
1,1,1-TCA	18
Xylenes	35

AGW-11 (10-11)	
Date	3/18/2009
Compound	Concentration (ug/L)
Freon 113	29 J

LEGEND:

TRMW-1	MONITORING WELL LOCATION AND DESIGNATION
AGW-1	TEMPORARY MONITORING WELL (VPB) LOCATION AND DESIGNATION
AGW-6	TEMPORARY MONITORING WELL (WATER TABLE SAMPLE) LOCATION AND DESIGNATION
AGW-8	SOIL BORING AND TEMPORARY MONITORING WELL (VPB) LOCATION AND DESIGNATION
AGW-10	SOIL BORING AND TEMPORARY MONITORING WELL (WATER TABLE SAMPLE) LOCATION AND DESIGNATION
	CURRENT OR FORMER AREA OF CONCERN
1,1-DCA	1,1-DICHLOROETHANE
PCE	TETRACHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
ug/L	MICROGRAMS PER LITER

NOTES:

1. TEMPORARY MONITORING WELL LOCATIONS ARE APPROXIMATE.

TARGET ROCK SITE
EAST FARMINGDALE, NEW YORK

VOLATILE ORGANIC COMPOUNDS IN SHALLOW GROUNDWATER EXCEEDING SCGs

ARCADIS

FIGURE
5

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:MW TM:CK LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\NY001490\0001\00005\RI Report\Figure 5.dwg LAYOUT: 4 SAVED: 10/20/2009 2:07 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 10/28/2009 2:47 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: NY001490.0001.00001
Basemap

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Appendix A

Supplemental Remedial Investigation Work Plan

ARCADIS
Infrastructure, environment, buildings

ARCADIS
Two Huntington Quadrangle
Suite 1S10
Melville
New York 11747
Tel 631.249.7600
Fax 631.249.7610
www.arcadis-us.com

ENVIRONMENT

Robert Corcoran, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway
Albany, New York 12233-7015

Subject:
Supplemental Remedial Investigation Work Plan
Target Rock Site
1966E Broadhollow Road
East Farmingdale, New York
NYSDEC Site # 1-52-119

Date:
April 1, 2009

Our ref:
NY001490.0001.00002

Dear Mr. Corcoran:

This Supplemental Remedial Investigation (RI) Work Plan has been prepared by ARCADIS on behalf of Curtiss-Wright Flow Control Corporation, Target Rock Division (Target Rock), and is being submitted pursuant to Section II of the Order On Consent (Order) Index # W1-1031-04-10 that was executed by the New York State Department of Environmental Conservation (NYSDEC) and Target Rock, effective August 10, 2008. The Order requires that a Remedial Investigation/Feasibility Study (RI/FS) be conducted for the Target Rock Site (referred to in this Supplemental RI Work Plan as the Site).

A revised RI/FS Work Plan was submitted to the NYSDEC on February 12, 2009 and approved by the NYSDEC in a letter dated February 26, 2009. Section 5.1 of the RI/FS Work Plan indicates that a Supplemental RI Work Plan, in the form of a focused letter detailing proposed additional investigative activities and rationale, would be submitted to the NYSDEC if the RI data indicated further investigative activities were necessary to meet the RI goals. The RI/FS Work Plan also indicated that prior to the data validation process, unvalidated data would be provided to the NYSDEC to allow for a timely review and determination as to whether additional investigative activities are required.

Sub-Slab Soil Vapor Sampling

Sub-slab soil vapor samples were collected from temporary points SS-1 through SS-8 on March 9 and 16, 2009 in accordance with Section 6.2.1.3 of the RI/FS Work Plan and the methods and procedures described in the Field Sampling Plan (Appendix A of the RI/FS Work Plan). Section 5.1 of the RI/FS Work Plan indicated that, if warranted, based on the on-site sub-slab soil vapor sample quality data (i.e., concentration levels), on-site indoor air quality sampling would be conducted. Target Rock has reviewed and evaluated the unvalidated sub-slab soil vapor data and has determined that on-site indoor air quality sampling is warranted. The unvalidated sub-slab soil vapor data are provided in Attachment A of this Supplemental RI Work Plan.

Proposed Indoor Air Quality Sampling

Based on the presence of volatile organic compounds (VOCs) in sub-slab soil vapor, primarily tetrachloroethene (PCE), trichloroethene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA), indoor air quality sampling is proposed to assess the potential presence of VOCs in indoor air at the Site. The proposed indoor air quality portion of the RI consists of the collection of nine (9) indoor air quality samples (IA-1 through IA-9). It is proposed that seven (7) samples (IA-1 through IA-6 and IA-9) will be collected from inside the west building and that two (2) samples (IA-7 and IA-8) will be collected from inside the east building. Eight (8) of the indoor air quality samples will be collected from the locations where the sub-slab soil vapor samples were collected and one (1) of the indoor air quality samples (IA-9) will be collected from the office space in the west building. One round of indoor air quality sampling will be conducted.

Prior to collecting the indoor air quality samples, a building survey and chemical inventory will be conducted to assess potential indoor air sources that may contain the VOCs that were detected in the sub-slab soil vapor samples. The New York State Department of Health (NYSDOH) Indoor Air Quality Questionnaire and Building Inventory Field Form will be completed for each building.

The indoor air quality samples will be submitted to the laboratory for the analysis of the EPA Method TO-15 Volatile Organic Compound List (modified Air Toxics Ltd. TO-15 Low-Level compound list) using the methods specified in Table B-2 of the Quality Assurance Project Plan (QAPP). Analytes are provided in Table B-4 of the QAPP. The indoor air quality sample analyte list will be consistent with the sub-slab

soil vapor analyte list. The quality assurance/quality control (QA/QC) protocols described in the QAPP related to soil vapor field sampling and laboratory analysis will be followed during the indoor air sampling activities.

Indoor Air Quality Sampling Methodology

This section describes the methods to collect indoor air quality samples using 6-liter SUMMA® canisters and 8-hour flow controllers. The general sequence of indoor air quality sample collection and record keeping is as follows:

- A laboratory pre-calibrated 8-hour flow controller (i.e., calibrated to collect the indoor air quality sample at a rate of approximately 11.5 milliliters per minute [mL/min]) with an in-line particulate filter will be attached to the SUMMA® canister. A duplicate indoor air quality sample will be collected at one of the locations using a stainless steel "T" fitting and a second SUMMA® canister.

- The SUMMA® canister will be placed at the sampling location. The SUMMA® canister will be situated on a stable platform (e.g., box or crate) so that the sampling zone is approximately 3 feet above the floor (i.e., representative of the breathing zone for a seated individual).

- The SUMMA® canister valve will be opened, the sample start time and initial vacuum will be recorded, and the indoor air quality sample will be collected.

- The SUMMA® canister vacuum and sample time duration (8 hours) will be monitored during sampling and the SUMMA® canister valve will be closed when the vacuum is between 5 and 10 inches of mercury (Hg). The initial, intermediate (i.e., at 4 hours), and final vacuum of the SUMMA® canister will be recorded.

- The sample end time and final vacuum will be recorded. Weather-related data such as barometric pressure and relative humidity will also be recorded using weather information that is obtained from the local airport or other suitable information source (e.g., weatherunderground.com).

- Indoor air quality samples will be collected for the analysis of the EPA Method TO-15 Volatile Organic Compound List (modified Air Toxics Ltd. TO-15 Low-Level compound list).

- The sample collection, labeling, and handling procedures described in Section 7.3 of the FSP will be followed.

Project Schedule

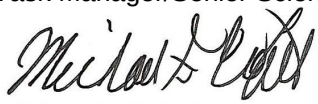
Work Activity	*Duration*
Supplemental RI Work Plan Approval	--
Complete NYSDOH Indoor Air Quality Questionnaire and Building Inventory Field Form	Within 1 week following NYSDEC Approval
Implement On-Site Indoor Air Quality Sampling	Within 1 week following completion of NYSDOH Form
Laboratory Analysis of Samples	2 weeks

Please contact David Rogers of Curtiss-Wright Corporation at (973) 541-3758 if you have any questions.

Sincerely,

ARCADIS

Christopher D. Keen
Task Manager/Senior Scientist



Michael F. Wolfert
Project Manager/Hydrogeologist

ATTACHMENT A

Sub-Slab Soil Vapor Laboratory Analytical Results

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718**	**Date of Collection:**	**3/9/09 11:17:00 AM**
Dil. Factor:	**5.60**	**Date of Analysis:**	**3/18/09 01:01 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.56	0.76	2.8	3.8
Chloromethane	0.56	Not Detected	1.2	Not Detected
Vinyl Chloride	0.56	Not Detected	1.4	Not Detected
Bromomethane	0.56	Not Detected	2.2	Not Detected
Chloroethane	0.56	Not Detected	1.5	Not Detected
Freon 11	0.56	1.1	3.1	6.0
Freon 113	0.56	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Acetone	2.8	180	6.6	420
Carbon Disulfide	2.8	4.8	8.7	15
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
Methyl tert-butyl ether	0.56	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.56	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.56	4.1	1.6	12
cis-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Chloroform	0.56	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.56	33	3.0	180
Cyclohexane	0.56	Not Detected	1.9	Not Detected
Carbon Tetrachloride	0.56	Not Detected	3.5	Not Detected
Benzene	0.56	1.1	1.8	3.6
1,2-Dichloroethane	0.56	Not Detected	2.3	Not Detected
Trichloroethene	0.56	Not Detected	3.0	Not Detected
1,2-Dichloropropane	0.56	Not Detected	2.6	Not Detected
Bromodichloromethane	0.56	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
4-Methyl-2-pentanone	0.56	Not Detected	2.3	Not Detected
Toluene	0.56	3.4	2.1	13
trans-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.56	Not Detected	3.0	Not Detected
Tetrachloroethene	0.56	20	3.8	140
2-Hexanone	2.8	Not Detected	11	Not Detected
Dibromochloromethane	0.56	0.64	4.8	5.5
1,2-Dibromoethane (EDB)	0.56	Not Detected	4.3	Not Detected
Chlorobenzene	0.56	Not Detected	2.6	Not Detected
Ethyl Benzene	0.56	7.4	2.4	32
m,p-Xylene	0.56	33	2.4	140
o-Xylene	0.56	11	2.4	46
Styrene	0.56	Not Detected	2.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 01:01 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Bromoform	0.56	0.71	5.8	7.4
Cumene	0.56	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.56	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.5	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	27	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7 Lab Duplicate

Lab ID#: 0903271-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031721**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 02:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.56	0.80	2.8	3.9
Chloromethane	0.56	Not Detected	1.2	Not Detected
Vinyl Chloride	0.56	Not Detected	1.4	Not Detected
Bromomethane	0.56	Not Detected	2.2	Not Detected
Chloroethane	0.56	Not Detected	1.5	Not Detected
Freon 11	0.56	1.1	3.1	6.1
Freon 113	0.56	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Acetone	2.8	140	6.6	340
Carbon Disulfide	2.8	4.5	8.7	14
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
Methyl tert-butyl ether	0.56	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.56	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.56	4.7	1.6	14
cis-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Chloroform	0.56	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.56	32	3.0	170
Cyclohexane	0.56	Not Detected	1.9	Not Detected
Carbon Tetrachloride	0.56	Not Detected	3.5	Not Detected
Benzene	0.56	1.0	1.8	3.3
1,2-Dichloroethane	0.56	Not Detected	2.3	Not Detected
Trichloroethene	0.56	Not Detected	3.0	Not Detected
1,2-Dichloropropane	0.56	Not Detected	2.6	Not Detected
Bromodichloromethane	0.56	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
4-Methyl-2-pentanone	0.56	Not Detected	2.3	Not Detected
Toluene	0.56	3.4	2.1	13
trans-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.56	Not Detected	3.0	Not Detected
Tetrachloroethene	0.56	21	3.8	140
2-Hexanone	2.8	Not Detected	11	Not Detected
Dibromochloromethane	0.56	0.69	4.8	5.9
1,2-Dibromoethane (EDB)	0.56	Not Detected	4.3	Not Detected
Chlorobenzene	0.56	Not Detected	2.6	Not Detected
Ethyl Benzene	0.56	7.7	2.4	34
m,p-Xylene	0.56	34	2.4	150
o-Xylene	0.56	11	2.4	48
Styrene	0.56	Not Detected	2.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7 Lab Duplicate

Lab ID#: 0903271-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031721**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 02:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Bromoform	0.56	0.65	5.8	6.7
Cumene	0.56	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.56	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.5	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	27	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719**	**Date of Collection: 3/9/09 1:51:00 PM**	
Dil. Factor:	**5.27**	**Date of Analysis: 3/18/09 01:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.53	0.65	2.6	3.2
Chloromethane	0.53	Not Detected	1.1	Not Detected
Vinyl Chloride	0.53	Not Detected	1.3	Not Detected
Bromomethane	0.53	Not Detected	2.0	Not Detected
Chloroethane	0.53	Not Detected	1.4	Not Detected
Freon 11	0.53	0.59	3.0	3.3
Freon 113	0.53	Not Detected	4.0	Not Detected
1,1-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Acetone	2.6	510 E	6.2	1200 E
Carbon Disulfide	2.6	Not Detected	8.2	Not Detected
Methylene Chloride	1.0	Not Detected	3.7	Not Detected
Methyl tert-butyl ether	0.53	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
1,1-Dichloroethane	0.53	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.53	2.7	1.6	8.0
cis-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Chloroform	0.53	Not Detected	2.6	Not Detected
1,1,1-Trichloroethane	0.53	0.76	2.9	4.1
Cyclohexane	0.53	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.53	Not Detected	3.3	Not Detected
Benzene	0.53	0.62	1.7	2.0
1,2-Dichloroethane	0.53	Not Detected	2.1	Not Detected
Trichloroethene	0.53	1.0	2.8	5.5
1,2-Dichloropropane	0.53	Not Detected	2.4	Not Detected
Bromodichloromethane	0.53	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.53	Not Detected	2.2	Not Detected
Toluene	0.53	3.2	2.0	12
trans-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
1,1,2-Trichloroethane	0.53	Not Detected	2.9	Not Detected
Tetrachloroethene	0.53	22	3.6	150
2-Hexanone	2.6	Not Detected	11	Not Detected
Dibromochloromethane	0.53	Not Detected	4.5	Not Detected
1,2-Dibromoethane (EDB)	0.53	Not Detected	4.0	Not Detected
Chlorobenzene	0.53	Not Detected	2.4	Not Detected
Ethyl Benzene	0.53	0.94	2.3	4.1
m,p-Xylene	0.53	2.6	2.3	11
o-Xylene	0.53	1.0	2.3	4.4
Styrene	0.53	Not Detected	2.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719**	**Date of Collection: 3/9/09 1:51:00 PM**	
Dil. Factor:	**5.27**	**Date of Analysis: 3/18/09 01:46 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Bromoform	0.53	Not Detected	5.4	Not Detected
Cumene	0.53	Not Detected	2.6	Not Detected
1,1,2,2-Tetrachloroethane	0.53	Not Detected	3.6	Not Detected
1,3-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,4-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	20	Not Detected
Methyl Acetate	2.6	Not Detected	8.0	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031720**	**Date of Collection: 3/9/09 4:25:00 PM**	
Dil. Factor:	**5.17**	**Date of Analysis: 3/18/09 02:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.52	0.62	2.6	3.0
Chloromethane	0.52	Not Detected	1.1	Not Detected
Vinyl Chloride	0.52	Not Detected	1.3	Not Detected
Bromomethane	0.52	Not Detected	2.0	Not Detected
Chloroethane	0.52	Not Detected	1.4	Not Detected
Freon 11	0.52	0.71	2.9	4.0
Freon 113	0.52	12	4.0	89
1,1-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Acetone	2.6	370 E	6.1	870 E
Carbon Disulfide	2.6	3.6	8.0	11
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	0.52	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.52	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.52	5.4	1.5	16
cis-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Chloroform	0.52	Not Detected	2.5	Not Detected
1,1,1-Trichloroethane	0.52	1.9	2.8	10
Cyclohexane	0.52	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.52	Not Detected	3.2	Not Detected
Benzene	0.52	1.0	1.6	3.2
1,2-Dichloroethane	0.52	Not Detected	2.1	Not Detected
Trichloroethene	0.52	Not Detected	2.8	Not Detected
1,2-Dichloropropane	0.52	Not Detected	2.4	Not Detected
Bromodichloromethane	0.52	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.52	Not Detected	2.1	Not Detected
Toluene	0.52	1.4	1.9	5.2
trans-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.52	Not Detected	2.8	Not Detected
Tetrachloroethene	0.52	18	3.5	120
2-Hexanone	2.6	Not Detected	10	Not Detected
Dibromochloromethane	0.52	Not Detected	4.4	Not Detected
1,2-Dibromoethane (EDB)	0.52	Not Detected	4.0	Not Detected
Chlorobenzene	0.52	Not Detected	2.4	Not Detected
Ethyl Benzene	0.52	0.51 J	2.2	2.2 J
m,p-Xylene	0.52	1.6	2.2	6.8
o-Xylene	0.52	0.57	2.2	2.5
Styrene	0.52	Not Detected	2.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031720**	**Date of Collection: 3/9/09 4:25:00 PM**	
Dil. Factor:	**5.17**	**Date of Analysis: 3/18/09 02:17 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Bromoform	0.52	Not Detected	5.3	Not Detected
Cumene	0.52	2.1	2.5	10
1,1,2,2-Tetrachloroethane	0.52	Not Detected	3.5	Not Detected
1,3-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,4-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	19	Not Detected
Methyl Acetate	2.6	Not Detected	7.8	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.
J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903271-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031712c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 08:53 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903271-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031712c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 08:53 PM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Methyl Acetate	0.50	Not Detected	1.5	Not Detected
Methylcyclohexane	0.50	Not Detected	2.0	Not Detected
1,2-Dibromo-3-chloropropane	0.50	Not Detected	4.8	Not Detected

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903271-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 12:18 PM**	

Compound	%Recovery
Freon 12	114
Chloromethane	107
Vinyl Chloride	105
Bromomethane	100
Chloroethane	93
Freon 11	110
Freon 113	89
1,1-Dichloroethene	93
Acetone	110
Carbon Disulfide	97
Methylene Chloride	95
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	94
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	96
Chloroform	97
1,1,1-Trichloroethane	100
Cyclohexane	91
Carbon Tetrachloride	112
Benzene	97
1,2-Dichloroethane	111
Trichloroethene	97
1,2-Dichloropropane	97
Bromodichloromethane	109
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	101
Toluene	96
trans-1,3-Dichloropropene	85
1,1,2-Trichloroethane	96
Tetrachloroethene	96
2-Hexanone	93
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	98
Chlorobenzene	97
Ethyl Benzene	98
m,p-Xylene	97
o-Xylene	99
Styrene	96

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903271-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 12:18 PM**	

Compound	%Recovery
Bromoform	112
Cumene	106
1,1,2,2-Tetrachloroethane	100
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	99
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	94
Methyl Acetate	106
Methylcyclohexane	91
1,2-Dibromo-3-chloropropane	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903271-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 01:00 PM**	

Compound	%Recovery
Freon 12	105
Chloromethane	101
Vinyl Chloride	99
Bromomethane	94
Chloroethane	90
Freon 11	105
Freon 113	98
1,1-Dichloroethene	98
Acetone	84
Carbon Disulfide	94
Methylene Chloride	99
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	88
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	93
Chloroform	96
1,1,1-Trichloroethane	97
Cyclohexane	88
Carbon Tetrachloride	107
Benzene	94
1,2-Dichloroethane	108
Trichloroethene	96
1,2-Dichloropropane	91
Bromodichloromethane	107
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	96
Toluene	98
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	96
Tetrachloroethene	99
2-Hexanone	96
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	95
Chlorobenzene	97
Ethyl Benzene	97
m,p-Xylene	98
o-Xylene	101
Styrene	98

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903271-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/17/09 01:00 PM**	

Compound	**%Recovery**
Bromoform	107
Cumene	109
1,1,2,2-Tetrachloroethane	98
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	98
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	98
Methyl Acetate	Not Spiked
Methylcyclohexane	90
1,2-Dibromo-3-chloropropane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032409**	**Date of Collection:**	**3/16/09 10:00:00 AM**
Dil. Factor:	**12.6**	**Date of Analysis:**	**3/24/09 01:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.3	Not Detected	31	Not Detected
Chloromethane	25	Not Detected	52	Not Detected
Vinyl Chloride	6.3	Not Detected	16	Not Detected
Bromomethane	6.3	Not Detected	24	Not Detected
Chloroethane	6.3	Not Detected	17	Not Detected
Freon 11	6.3	Not Detected	35	Not Detected
Freon 113	6.3	160	48	1200
1,1-Dichloroethene	6.3	Not Detected	25	Not Detected
Acetone	25	120	60	290
Carbon Disulfide	6.3	Not Detected	20	Not Detected
Methylene Chloride	6.3	Not Detected	22	Not Detected
Methyl tert-butyl ether	6.3	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
1,1-Dichloroethane	6.3	19	26	78
2-Butanone (Methyl Ethyl Ketone)	6.3	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
Chloroform	6.3	Not Detected	31	Not Detected
1,1,1-Trichloroethane	6.3	620	34	3400
Cyclohexane	6.3	Not Detected	22	Not Detected
Carbon Tetrachloride	6.3	Not Detected	40	Not Detected
Benzene	6.3	Not Detected	20	Not Detected
1,2-Dichloroethane	6.3	Not Detected	25	Not Detected
Trichloroethene	6.3	110	34	580
1,2-Dichloropropane	6.3	Not Detected	29	Not Detected
Bromodichloromethane	6.3	Not Detected	42	Not Detected
cis-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
4-Methyl-2-pentanone	6.3	Not Detected	26	Not Detected
Toluene	6.3	Not Detected	24	Not Detected
trans-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
1,1,2-Trichloroethane	6.3	Not Detected	34	Not Detected
Tetrachloroethene	6.3	1300	43	8800
2-Hexanone	25	Not Detected	100	Not Detected
Dibromochloromethane	6.3	Not Detected	54	Not Detected
1,2-Dibromoethane (EDB)	6.3	Not Detected	48	Not Detected
Chlorobenzene	6.3	Not Detected	29	Not Detected
Ethyl Benzene	6.3	Not Detected	27	Not Detected
m,p-Xylene	6.3	Not Detected	27	Not Detected
o-Xylene	6.3	Not Detected	27	Not Detected
Styrene	6.3	Not Detected	27	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032409**	**Date of Collection: 3/16/09 10:00:00 AM**	
Dil. Factor:	**12.6**	**Date of Analysis: 3/24/09 01:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	6.3	Not Detected	65	Not Detected
Cumene	6.3	Not Detected	31	Not Detected
1,1,2,2-Tetrachloroethane	6.3	Not Detected	43	Not Detected
1,3-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,4-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2,4-Trichlorobenzene	25	Not Detected	190	Not Detected
Methyl Acetate	63	Not Detected	190	Not Detected
Methylcyclohexane	25	Not Detected	100	Not Detected
1,2-Dibromo-3-chloropropane	25	Not Detected	240	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	93	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection:**	**3/16/09 11:39:00 AM**
Dil. Factor:	**5.70**	**Date of Analysis:**	**3/23/09 09:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.57	0.58	2.8	2.9
Chloromethane	0.57	Not Detected	1.2	Not Detected
Vinyl Chloride	0.57	0.61	1.4	1.6
Bromomethane	0.57	Not Detected	2.2	Not Detected
Chloroethane	0.57	Not Detected	1.5	Not Detected
Freon 11	0.57	1.4	3.2	7.8
Freon 113	0.57	140	4.4	1100
1,1-Dichloroethene	0.57	Not Detected	2.3	Not Detected
Acetone	2.8	Not Detected	6.8	Not Detected
Carbon Disulfide	2.8	Not Detected	8.9	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	0.57	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.57	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.57	5.0	1.7	15
cis-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
Chloroform	0.57	0.61	2.8	3.0
1,1,1-Trichloroethane	0.57	4.6	3.1	25
Cyclohexane	0.57	Not Detected	2.0	Not Detected
Carbon Tetrachloride	0.57	Not Detected	3.6	Not Detected
Benzene	0.57	0.75	1.8	2.4
1,2-Dichloroethane	0.57	Not Detected	2.3	Not Detected
Trichloroethene	0.57	5.7	3.1	31
1,2-Dichloropropane	0.57	Not Detected	2.6	Not Detected
Bromodichloromethane	0.57	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
4-Methyl-2-pentanone	0.57	Not Detected	2.3	Not Detected
Toluene	0.57	Not Detected	2.1	Not Detected
trans-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
1,1,2-Trichloroethane	0.57	Not Detected	3.1	Not Detected
Tetrachloroethene	0.57	130	3.9	870
2-Hexanone	2.8	Not Detected	12	Not Detected
Dibromochloromethane	0.57	Not Detected	4.8	Not Detected
1,2-Dibromoethane (EDB)	0.57	Not Detected	4.4	Not Detected
Chlorobenzene	0.57	Not Detected	2.6	Not Detected
Ethyl Benzene	0.57	Not Detected	2.5	Not Detected
m,p-Xylene	0.57	Not Detected	2.5	Not Detected
o-Xylene	0.57	Not Detected	2.5	Not Detected
Styrene	0.57	Not Detected	2.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection: 3/16/09 11:39:00 AM**	
Dil. Factor:	**5.70**	**Date of Analysis: 3/23/09 09:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.57	Not Detected	5.9	Not Detected
Cumene	0.57	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.57	Not Detected	3.9	Not Detected
1,3-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.6	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	28	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	87	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032410**	**Date of Collection:**	**3/16/09 2:15:00 PM**
Dil. Factor:	**63.2**	**Date of Analysis:**	**3/24/09 02:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	Not Detected	160	Not Detected
Chloromethane	130	Not Detected	260	Not Detected
Vinyl Chloride	32	Not Detected	81	Not Detected
Bromomethane	32	Not Detected	120	Not Detected
Chloroethane	32	Not Detected	83	Not Detected
Freon 11	32	Not Detected	180	Not Detected
Freon 113	32	Not Detected	240	Not Detected
1,1-Dichloroethene	32	37	120	140
Acetone	130	580	300	1400
Carbon Disulfide	32	Not Detected	98	Not Detected
Methylene Chloride	32	Not Detected	110	Not Detected
Methyl tert-butyl ether	32	Not Detected	110	Not Detected
trans-1,2-Dichloroethene	32	Not Detected	120	Not Detected
1,1-Dichloroethane	32	190	130	780
2-Butanone (Methyl Ethyl Ketone)	32	Not Detected	93	Not Detected
cis-1,2-Dichloroethene	32	160	120	620
Chloroform	32	Not Detected	150	Not Detected
1,1,1-Trichloroethane	32	9100	170	50000
Cyclohexane	32	Not Detected	110	Not Detected
Carbon Tetrachloride	32	Not Detected	200	Not Detected
Benzene	32	Not Detected	100	Not Detected
1,2-Dichloroethane	32	Not Detected	130	Not Detected
Trichloroethene	32	5900	170	32000
1,2-Dichloropropane	32	Not Detected	150	Not Detected
Bromodichloromethane	32	Not Detected	210	Not Detected
cis-1,3-Dichloropropene	32	Not Detected	140	Not Detected
4-Methyl-2-pentanone	32	Not Detected	130	Not Detected
Toluene	32	Not Detected	120	Not Detected
trans-1,3-Dichloropropene	32	Not Detected	140	Not Detected
1,1,2-Trichloroethane	32	Not Detected	170	Not Detected
Tetrachloroethene	32	7500	210	51000
2-Hexanone	130	Not Detected	520	Not Detected
Dibromochloromethane	32	Not Detected	270	Not Detected
1,2-Dibromoethane (EDB)	32	Not Detected	240	Not Detected
Chlorobenzene	32	Not Detected	140	Not Detected
Ethyl Benzene	32	Not Detected	140	Not Detected
m,p-Xylene	32	Not Detected	140	Not Detected
o-Xylene	32	Not Detected	140	Not Detected
Styrene	32	Not Detected	130	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032410**	**Date of Collection: 3/16/09 2:15:00 PM**	
Dil. Factor:	**63.2**	**Date of Analysis: 3/24/09 02:20 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	32	Not Detected	330	Not Detected
Cumene	32	Not Detected	160	Not Detected
1,1,2,2-Tetrachloroethane	32	Not Detected	220	Not Detected
1,3-Dichlorobenzene	32	Not Detected	190	Not Detected
1,4-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2,4-Trichlorobenzene	130	Not Detected	940	Not Detected
Methyl Acetate	320	Not Detected	960	Not Detected
Methylcyclohexane	130	Not Detected	510	Not Detected
1,2-Dibromo-3-chloropropane	130	Not Detected	1200	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	91	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection:**	**3/16/09 3:25:00 PM**
Dil. Factor:	**11.2**	**Date of Analysis:**	**3/25/09 06:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.6	Not Detected	28	Not Detected
Chloromethane	22	Not Detected	46	Not Detected
Vinyl Chloride	5.6	Not Detected	14	Not Detected
Bromomethane	5.6	Not Detected	22	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
Freon 11	5.6	Not Detected	31	Not Detected
Freon 113	5.6	300	43	2300
1,1-Dichloroethene	5.6	Not Detected	22	Not Detected
Acetone	22	61	53	140
Carbon Disulfide	5.6	Not Detected	17	Not Detected
Methylene Chloride	5.6	Not Detected	19	Not Detected
Methyl tert-butyl ether	5.6	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
1,1-Dichloroethane	5.6	15	23	61
2-Butanone (Methyl Ethyl Ketone)	5.6	Not Detected	16	Not Detected
cis-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
Chloroform	5.6	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.6	340	30	1900
Cyclohexane	5.6	Not Detected	19	Not Detected
Carbon Tetrachloride	5.6	Not Detected	35	Not Detected
Benzene	5.6	Not Detected	18	Not Detected
1,2-Dichloroethane	5.6	Not Detected	23	Not Detected
Trichloroethene	5.6	200	30	1000
1,2-Dichloropropane	5.6	Not Detected	26	Not Detected
Bromodichloromethane	5.6	Not Detected	38	Not Detected
cis-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
4-Methyl-2-pentanone	5.6	Not Detected	23	Not Detected
Toluene	5.6	Not Detected	21	Not Detected
trans-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.6	Not Detected	30	Not Detected
Tetrachloroethene	5.6	1400	38	9200
2-Hexanone	22	Not Detected	92	Not Detected
Dibromochloromethane	5.6	Not Detected	48	Not Detected
1,2-Dibromoethane (EDB)	5.6	Not Detected	43	Not Detected
Chlorobenzene	5.6	Not Detected	26	Not Detected
Ethyl Benzene	5.6	Not Detected	24	Not Detected
m,p-Xylene	5.6	Not Detected	24	Not Detected
o-Xylene	5.6	Not Detected	24	Not Detected
Styrene	5.6	Not Detected	24	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection: 3/16/09 3:25:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 3/25/09 06:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	5.6	Not Detected	58	Not Detected
Cumene	5.6	Not Detected	28	Not Detected
1,1,2,2-Tetrachloroethane	5.6	Not Detected	38	Not Detected
1,3-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,4-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	170	Not Detected
Methyl Acetate	56	Not Detected	170	Not Detected
Methylcyclohexane	22	Not Detected	90	Not Detected
1,2-Dibromo-3-chloropropane	22	Not Detected	220	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032510**	**Date of Collection:**	**3/16/09 4:33:00 PM**
Dil. Factor:	**26.8**	**Date of Analysis:**	**3/25/09 08:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	66	Not Detected
Chloromethane	54	Not Detected	110	Not Detected
Vinyl Chloride	13	Not Detected	34	Not Detected
Bromomethane	13	Not Detected	52	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
Freon 11	13	Not Detected	75	Not Detected
Freon 113	13	430	100	3300
1,1-Dichloroethene	13	Not Detected	53	Not Detected
Acetone	54	340	130	820
Carbon Disulfide	13	Not Detected	42	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
Methyl tert-butyl ether	13	Not Detected	48	Not Detected
trans-1,2-Dichloroethene	13	Not Detected	53	Not Detected
1,1-Dichloroethane	13	33	54	130
2-Butanone (Methyl Ethyl Ketone)	13	Not Detected	40	Not Detected
cis-1,2-Dichloroethene	13	Not Detected	53	Not Detected
Chloroform	13	Not Detected	65	Not Detected
1,1,1-Trichloroethane	13	170	73	910
Cyclohexane	13	Not Detected	46	Not Detected
Carbon Tetrachloride	13	Not Detected	84	Not Detected
Benzene	13	Not Detected	43	Not Detected
1,2-Dichloroethane	13	Not Detected	54	Not Detected
Trichloroethene	13	64	72	340
1,2-Dichloropropane	13	Not Detected	62	Not Detected
Bromodichloromethane	13	Not Detected	90	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	61	Not Detected
4-Methyl-2-pentanone	13	Not Detected	55	Not Detected
Toluene	13	Not Detected	50	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	61	Not Detected
1,1,2-Trichloroethane	13	Not Detected	73	Not Detected
Tetrachloroethene	13	2800	91	19000
2-Hexanone	54	Not Detected	220	Not Detected
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	100	Not Detected
Chlorobenzene	13	Not Detected	62	Not Detected
Ethyl Benzene	13	Not Detected	58	Not Detected
m,p-Xylene	13	Not Detected	58	Not Detected
o-Xylene	13	Not Detected	58	Not Detected
Styrene	13	Not Detected	57	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032510**	**Date of Collection: 3/16/09 4:33:00 PM**	
Dil. Factor:	**26.8**	**Date of Analysis: 3/25/09 08:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	13	Not Detected	140	Not Detected
Cumene	13	Not Detected	66	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	92	Not Detected
1,3-Dichlorobenzene	13	Not Detected	80	Not Detected
1,4-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2,4-Trichlorobenzene	54	Not Detected	400	Not Detected
Methyl Acetate	130	Not Detected	410	Not Detected
Methylcyclohexane	54	Not Detected	220	Not Detected
1,2-Dibromo-3-chloropropane	54	Not Detected	520	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032310**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 05:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032310**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 05:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Methyl Acetate	0.50	Not Detected	1.5	Not Detected
Methylcyclohexane	0.50	Not Detected	2.0	Not Detected
1,2-Dibromo-3-chloropropane	0.50	Not Detected	4.8	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	89	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032408**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 12:19 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032408**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 12:19 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Methyl Acetate	5.0	Not Detected	15	Not Detected
Methylcyclohexane	2.0	Not Detected	8.0	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 05:32 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903438-06C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 05:32 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Methyl Acetate	5.0	Not Detected	15	Not Detected
Methylcyclohexane	2.0	Not Detected	8.0	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 09:58 AM**	

Compound	%Recovery
Freon 12	98
Chloromethane	94
Vinyl Chloride	100
Bromomethane	105
Chloroethane	103
Freon 11	90
Freon 113	98
1,1-Dichloroethene	105
Acetone	100
Carbon Disulfide	100
Methylene Chloride	98
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	106
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	107
Chloroform	103
1,1,1-Trichloroethane	101
Cyclohexane	103
Carbon Tetrachloride	106
Benzene	109
1,2-Dichloroethane	110
Trichloroethene	111
1,2-Dichloropropane	106
Bromodichloromethane	108
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	105
Toluene	107
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	116
Tetrachloroethene	114
2-Hexanone	119
Dibromochloromethane	118
1,2-Dibromoethane (EDB)	117
Chlorobenzene	115
Ethyl Benzene	117
m,p-Xylene	119
o-Xylene	121
Styrene	125

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 09:58 AM**	

Compound	%Recovery
Bromoform	119
Cumene	122
1,1,2,2-Tetrachloroethane	119
1,3-Dichlorobenzene	118
1,4-Dichlorobenzene	117
1,2-Dichlorobenzene	120
1,2,4-Trichlorobenzene	113
Methyl Acetate	109
Methylcyclohexane	103
1,2-Dibromo-3-chloropropane	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	91	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 08:34 AM**	

Compound	%Recovery
Freon 12	99
Chloromethane	112
Vinyl Chloride	96
Bromomethane	98
Chloroethane	91
Freon 11	100
Freon 113	92
1,1-Dichloroethene	97
Acetone	98
Carbon Disulfide	89
Methylene Chloride	109
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	90
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	96
Chloroform	98
1,1,1-Trichloroethane	96
Cyclohexane	88
Carbon Tetrachloride	100
Benzene	95
1,2-Dichloroethane	104
Trichloroethene	93
1,2-Dichloropropane	93
Bromodichloromethane	98
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	91
Toluene	94
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	94
Tetrachloroethene	96
2-Hexanone	94
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	98
Chlorobenzene	94
Ethyl Benzene	95
m,p-Xylene	94
o-Xylene	92
Styrene	94

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 08:34 AM**	

Compound	**%Recovery**
Bromoform	105
Cumene	97
1,1,2,2-Tetrachloroethane	93
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	90
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	82
Methyl Acetate	104
Methylcyclohexane	89
1,2-Dibromo-3-chloropropane	93

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 02:24 AM**	

Compound	%Recovery
Freon 12	94
Chloromethane	108
Vinyl Chloride	95
Bromomethane	90
Chloroethane	84
Freon 11	94
Freon 113	86
1,1-Dichloroethene	90
Acetone	88
Carbon Disulfide	82
Methylene Chloride	103
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	85
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	81
cis-1,2-Dichloroethene	90
Chloroform	93
1,1,1-Trichloroethane	92
Cyclohexane	83
Carbon Tetrachloride	93
Benzene	89
1,2-Dichloroethane	99
Trichloroethene	87
1,2-Dichloropropane	86
Bromodichloromethane	92
cis-1,3-Dichloropropene	87
4-Methyl-2-pentanone	84
Toluene	87
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	86
Tetrachloroethene	87
2-Hexanone	84
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	89
Chlorobenzene	86
Ethyl Benzene	86
m,p-Xylene	85
o-Xylene	84
Styrene	85

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903438-07C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 02:24 AM**	

Compound	%Recovery
Bromoform	95
Cumene	89
1,1,2,2-Tetrachloroethane	87
1,3-Dichlorobenzene	83
1,4-Dichlorobenzene	83
1,2-Dichlorobenzene	79
1,2,4-Trichlorobenzene	77
Methyl Acetate	103
Methylcyclohexane	84
1,2-Dibromo-3-chloropropane	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 10:42 AM**	

Compound	%Recovery
Freon 12	98
Chloromethane	94
Vinyl Chloride	99
Bromomethane	106
Chloroethane	104
Freon 11	89
Freon 113	106
1,1-Dichloroethene	115
Acetone	104
Carbon Disulfide	95
Methylene Chloride	100
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	104
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	108
Chloroform	105
1,1,1-Trichloroethane	102
Cyclohexane	104
Carbon Tetrachloride	104
Benzene	106
1,2-Dichloroethane	109
Trichloroethene	102
1,2-Dichloropropane	102
Bromodichloromethane	105
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	109
Toluene	108
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	109
Tetrachloroethene	107
2-Hexanone	116
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	107
Chlorobenzene	109
Ethyl Benzene	107
m,p-Xylene	111
o-Xylene	113
Styrene	118

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/23/09 10:42 AM**	

Compound	%Recovery
Bromoform	115
Cumene	116
1,1,2,2-Tetrachloroethane	116
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	109
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	102
Methyl Acetate	Not Spiked
Methylcyclohexane	103
1,2-Dibromo-3-chloropropane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	90	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 09:07 AM**	

Compound	%Recovery
Freon 12	96
Chloromethane	109
Vinyl Chloride	93
Bromomethane	96
Chloroethane	88
Freon 11	98
Freon 113	102
1,1-Dichloroethene	106
Acetone	97
Carbon Disulfide	89
Methylene Chloride	117
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	92
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	102
Chloroform	102
1,1,1-Trichloroethane	101
Cyclohexane	90
Carbon Tetrachloride	103
Benzene	98
1,2-Dichloroethane	109
Trichloroethene	98
1,2-Dichloropropane	95
Bromodichloromethane	101
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	96
Toluene	101
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	96
Tetrachloroethene	99
2-Hexanone	96
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	96
Chlorobenzene	93
Ethyl Benzene	94
m,p-Xylene	93
o-Xylene	94
Styrene	96

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/24/09 09:07 AM**	

Compound	**%Recovery**
Bromoform	105
Cumene	100
1,1,2,2-Tetrachloroethane	91
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	87
1,2-Dichlorobenzene	83
1,2,4-Trichlorobenzene	78
Methyl Acetate	Not Spiked
Methylcyclohexane	93
1,2-Dibromo-3-chloropropane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032505**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 03:02 AM**	

Compound	%Recovery
Freon 12	95
Chloromethane	108
Vinyl Chloride	91
Bromomethane	93
Chloroethane	87
Freon 11	96
Freon 113	100
1,1-Dichloroethene	105
Acetone	94
Carbon Disulfide	86
Methylene Chloride	117
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	89
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	100
Chloroform	100
1,1,1-Trichloroethane	99
Cyclohexane	89
Carbon Tetrachloride	100
Benzene	94
1,2-Dichloroethane	105
Trichloroethene	94
1,2-Dichloropropane	91
Bromodichloromethane	97
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	91
Toluene	97
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	90
Tetrachloroethene	93
2-Hexanone	90
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	91
Chlorobenzene	89
Ethyl Benzene	89
m,p-Xylene	89
o-Xylene	88
Styrene	91

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903438-08C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032505**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/25/09 03:02 AM**	

Compound	**%Recovery**
Bromoform	99
Cumene	95
1,1,2,2-Tetrachloroethane	86
1,3-Dichlorobenzene	83
1,4-Dichlorobenzene	83
1,2-Dichlorobenzene	79
1,2,4-Trichlorobenzene	74
Methyl Acetate	Not Spiked
Methylcyclohexane	92
1,2-Dibromo-3-chloropropane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	98	70-130

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Appendix B

Sample/Core Logs

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Sample/Core Log

Boring/Well AGW-8 Project Name/No. Target Rock NY001496.0001.00002 Page 1 of 1

Site Location East Farmingdale, NY Drilling Started 3-17-09 8:44 AM Drilling Completed 3-17-09

Total Depth Drilled 10 feet Hole Diameter 2 inches Type of Sample/ Coring Device 5' Macrocore

Length and Diameter of Coring Device 5' x 1'2.5" Sampling Interval continuous feet

Land Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Method Geoprobe Direct Push Drilling Fluid Used None

Drilling Contractor Zebra Env. Driller Evan Morattis Helper Ryan Flerschmann

Prepared By Prezorski Hammer Weight _____ pounds Hammer Drop _____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	Sample/Core Description	PID (ppm)
0	5	3.25		4" Black asphalt, 2" Agregate. Then	0
				Sand, med to coarse, 15% small to med pebbles	0
				trace large pebbles, subangular & subrounded; well sorted,	0
				dry (Bottom foot moist), brown 7.5YR 4/4.	
5	10	2.67		10" sand, med to coarse, 15% small to med pebbles	0
				trace large pebbles, subangular & subrounded, well sorted	0
				dry, brown 7.5YR 4/4. Then 10" sand,	0
				silt, 10% quartzite small to med pebbles, subrounded	0
				subangular, well sorted, moist, light brown to brown	0
				7.5YR 6/4 to 5/4. Remainder of core: wet	0
				Sand, coarse, some medium sand, trace small	0
				small pebbles, subrounded, well sorted, brown	0
				7.5YR 5/3 & 5/4.	
				End of boring	

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Sample/Core Log

Boring/Well AGW-9 Project Name/No. Target Rock NY001490.0001.00002 Page 1 of 1

Site Location East Farmingdale, NY Drilling Started 8:37AM 3/13/09 Drilling Completed 3/13/09

Total Depth Drilled 16 feet Hole Diameter 1.5 inches Type of Sample/ Coring Device 5' Macrocore

Length and Diameter of Coring Device 5' x 1.25" Sampling Interval Continuous feet

Land Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Method Geoprobe Direct Push Drilling Fluid Used None

Drilling Contractor Zebra Env. Driller Luke Caballero Helper Jose Garcia

Prepared By Prezorski Hammer Weight _____ pounds Hammer Drop _____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	Sample/Core Description	PID (ppm)	
0	5	3.75		4" black asphalt, 26" sand, fine to coarse, 20% small to large pebbles, subrounded & subangular, trace glass, red brick & plastic fragments, trace aggregate pieces, poorly sorted, dry, dark brown 7.5YR 3/4. Remainder of core: Sand, Med to coarse, well sorted, dry, brownish yellow 10YR 6/6.	0	Fill material
					0	
					0	
					0	
					0	
5	10	2.5		5" sand, med to coarse, well sorted, dry, brownish yellow 10YR 6/6. Then 4" sand, fine to coarse, 20% small to large pebbles, subrounded & subangular, trace red brick & aggregate fragments, poorly sorted, dry, dark brown 7.5YR 3/4. Remainder sand, med to coarse, little small to large pebbles, subrounded & subangular, wet 9.5-10', poorly sorted to well sorted, dark brown 7.5YR 3/4.	0	Fill material
					0	
					0	
					0	
					0	
					0	
10	16	1.42		4" sand, med to coarse, little small to med pebbles, subrounded & subangular, wet, well sorted, dark brown 7.5YR 3/4. Then 6" sand, fine to coarse, well sorted, wet. Remainder of core: Sand, F to C, 20% small to large pebbles, subangular & subrounded, wet, dark brown 7.5YR 3/4.	0	
					0	
					0	
					0	
					0	
					0	
					0	
				End of Boring		

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Sample/Core Log

Boring/Well AGW-10 Project Name/No. Target Rock NY001490.0001.00002 Page 1 of 1

Site Location East Farmingdale, NY Drilling Started 1319 3/13/09 Drilling Completed 1349 3/13/09

Total Depth Drilled 16 feet Hole Diameter 2 inches Type of Sample/Coring Device 5' Macrocore

Length and Diameter of Coring Device 5' x 1.25" Sampling Interval Continuous feet

Land Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Method Geoprobe Direct Push Drilling Fluid Used None

Drilling Contractor Zebra Env. Driller Luke Caballero Helper Jose Garcia

Prepared By Prezorski Hammer Weight ____ pounds Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	Sample/Core Description	PID (ppm)
0	5	2.83		5.5" black asphalt. Then Sand, fine to coarse, 10% small to large pebbles, poorly sorted, moist, dark brown 7.5YR 3/4.	0
					0
				Last 2" clay, no dilatancy, non-plastic, trace sand, fine to medium, moist, reddish yellow 5YR 6/6 to 6/4.	0
5	10	3.58		9.5" sand, fine to coarse, 10% small to large pebbles, poorly sorted, moist, dark brown 7.5YR 3/4. Then 1"	0
				black asphalt. Then Sand, medium to coarse, 15%	0
				small to large pebbles, subangular, subrounded, well sorted, moist,	0
				wet approx 10' (bottom of core), strong brown color 7.5YR range	0
				4/6, 5/6-5/8 to 7.5YR dark brown 3/4.	
10	16	1.04		Sand, medium to coarse, 15% small to large pebbles,	0
				subangular, subrounded, well sorted, wet, brown, 7.5YR	0
				between 5/4 & 4/4.	
				End of boring.	

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Appendix C

Soil Vapor Sample Collection Logs

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Soil Vapor Sample Collection Log

Client:		Sample ID:	SV-1
Project:	Target Rock	Boring Equipment:	
Location:		Sealant:	
Project #:	NY001490.0001.00002	Tubing Information:	
Samplers:	Prezorski	Miscellaneous Equipment:	
Sample Point Location:		Subcontractor:	Zebra Env
Sampling Depth:	6.5-7'	Equipment:	
Time and Date of Collection:	3/12/09 11:51AM 12:18	Moisture Content of Sampling Zone:	
		Approximate Purge Volume:	140 ml/min

He Tracer test:
↑ He shroud 66% 11:30 AM
↑ 64% He shroud 11:40 AM
Ran 1 1/2 hrs

Canister Vacuum, Weather Information and PID Readings:

No He detected in pump outflow.

Time	Canister Vacuum (inches of Hg)	Temperature (°F) ~~or °C~~	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
11:51 AM	7-30	47.7	37.0		30.35	0 ppm
12:09	-12	40.8	39.1		30.35	0 ppm
12:18	-6	44.3	"		30.37	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 14000

Flow Controller ID: 14000

General Observations/Notes:

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-2
Client:		Boring Equipment:	
Project:		Sealant:	
Location:		Tubing Information:	
Project #:		Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env.
Sample Point Location:		Equipment:	
Sampling Depth:	6.5-7'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/12/09 10:13 AM 10:47 AM	Approximate Purge Volume:	160 ml/min

He Tracer Test: start 10:00 AM ↑40% He in shroud

10:03 AM ↑40% He in shroud

End 10:06 AM

Gas Tracer test

Canister Vacuum, Weather Information and PID Readings:

No He detected in purge airflow

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
10:13 AM	-7.30	37.1	42.8		30.34	0ppm
10:39 AM	-13	38.6	~~41.4~~ 41.7		30.35	0ppm
10:47	-6.5					

SUMMA Canister Information:

Rep 031209 Summa canister ID 3739

Size (circle one): 1 L (6 L)

Canister ID: 33867

Flow Controller ID: 33867

General Observations/Notes:

* Rep 031209 is SV-2 (6.5-7')

Fill time same for SV-2 (6.5-7') and Rep 031209

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-3
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prazenski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	6.5-7	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/11/09 start 1510 End 1540	Approximate Purge Volume:	162 ml/min

He Trace test: Start 1455 ↑41% He shroud 1505 ↑24% He shroud Gas OK

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or ~~°C~~)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1510	7-30	50.3	85.7		29.82	
1535	-9.5	49.7	89.3		29.83	Raining
1540	-7	50.9	89.0		29.82	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 34338

Flow Controller ID: 34338

General Observations/Notes:

Gas He trace test: No He detected in purge pump effluent.

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-4
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prazenski	Subcontractor:	Zebra Env.
Sample Point Location:		Equipment:	
Sampling Depth:	6.5-7	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/11/09 start 8:54 End 9:37	Approximate Purge Volume:	148 ml/min

He Trace test! Start @ 8:45AM End 8:50AM

Canister Vacuum, Weather Information and PID Readings:

No He detected in purge pump outflow Trace test 7.38% He in shroud Glass trace test

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
8:54	-30	49.0	Rain 91.2		29.97	Rain
9:09	-18	48.3	Rain 92.94		29.97	
9:37	-5	49.3	Rain 96.5		29.94	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33584

Flow Controller ID: 33584

General Observations/Notes:

Canister -7.2 then pumped to -5

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-5
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001496.0001.00002	Miscellaneous Equipment:	
Samplers:	Przorski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	4.5-5'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/12/19 1536, 1636	Approximate Purge Volume:	162 ml/min

He Trace test 1 1527 ↑48% He In shroud 1531 ↑38% He In shroud 1533 Done 60s Tracer test

Canister Vacuum, Weather Information and PID Readings:

No He detected in purge outflow.

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1536	-30	52.9	29.4		30.32	0ppm
1604	-19	49.5	30.0		30.33	0ppm
1636	-7	46.2	27.2		30.32	0ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 94601

Flow Controller ID: 94601

General Observations/Notes:

SV-5 located approx 1-2' lower than other soil vapor pts.

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

SV-6

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Soil Vapor Sample Collection Log

		Sample ID:	SV-6
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env
Sample Point Location:	SV-6	Equipment:	
Sampling Depth:	6.5-7'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	9/11/09	Approximate Purge Volume:	163 ml/min

11:27-11:57 He tracer test; Pass He tracer test; start 11:15; 11:24 door; 11:20 ↑30% He in shroud; ↑19%

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
11:27 AM	-30	48.3	89.7		29.90	Rain drizzle
11:50	-11	47.7	95.2		29.88	drizzle
11:57	-7	47.8	95.0		29.87	Light drizzle

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 34269

Flow Controller ID: 34269

General Observations/Notes:

He tracer test Pass. NB He detection purge pump outflow

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-7
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY00149.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	6.5-7'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/12/09 1344 to 1410	Approximate Purge Volume:	149 ml/min

He Tracer test: start 1326 ↑ 51% He In shroud
1336 ↑ 40% He In shroud
Pump tracer test
No He detected in pump outflow.

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1344	-30	53.4	31.6		30.35	0ppm
1402	-12	47.6	32.6		30.33	0ppm
1410	-7	47.9	29.4		30.33	0ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 2480

Flow Controller ID: 2480

General Observations/Notes:

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-8
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	6.5 - 7'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/11/09 1332-1409	Approximate Purge Volume:	164 ml/min

He tracer test: Open He ↑39% 1320 Stand 1324 shroud He ↑31%

Canister Vacuum, Weather Information and PID Readings: ~~Tracer~~ OK He in shroud 1328 End

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1332	-30	50.1	97.6		29.86	Light drizzle
1352	-15	~~49~~ 50.3	96.7		29.86	Light drizzle
1409	-7		86.8		29.80	stopped

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 3475

Flow Controller ID: 3475

General Observations/Notes:

Tracer test: No He ~~detected~~ in purge pump outflow.

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SV-9
Client:		Boring Equipment:	
Project:		Sealant:	
Location:		Tubing Information:	
Project #:	NY001498.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	6.5-7'	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/12/09 8139 → 9108 AM	Approximate Purge Volume:	156 ml/min

He Tracer test: ↑ 70% He in shroud 8:32 AM ↑ 70% He in shroud

Canister Vacuum, Weather Information and PID Readings:

No He detected in pump outflow

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
8:39	-30	35.3	67.0		30.31	0 ppm
9:05	-8	38.3	65.1		30.32	0 ppm
9:08	-7	38.2	58.3		30.32	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 35154

Flow Controller ID: 35154

General Observations/Notes:

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SS-1
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env.
Sample Point Location:		Equipment:	
Sampling Depth:	2" below concrete	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/16/09 1340 to 1415	Approximate Purge Volume:	164 ml/min

start purge 1335

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1340	7-30	66.5	39.1	Inside Bldg	30.26	0ppm
1400	-15	68.2	35.2		30.24	0ppm
1415	-7	68.5	36.9		30.24	0ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 4342

Flow Controller ID: 4342

General Observations/Notes:

Concrete 3 3/4" thick

Exhaust fans on inside room

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

Client:		Sample ID:	SS-2
Project:	Target Rock	Boring Equipment:	
Location:		Sealant:	
Project #:	NY001490.0001.00002	Tubing Information:	
Samplers:	Prezorki	Miscellaneous Equipment:	
Sample Point Location:		Subcontractor:	Zebra Env.
Sampling Depth:	2" below concrete	Equipment:	
Time and Date of Collection:	3/16/09 1601 to 1633	Moisture Content of Sampling Zone:	
		Approximate Purge Volume:	165 ml/min

start purge 1554 End purge 1559

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min) ~~Invisible~~	Barometric Pressure (inches of Hg)	PID (ppb)
1601	-30	57.5	42.0		30.24	0ppm
1619	-15	60.0	43.3		30.24	0ppm
1633	-7	59.2	40.4		30.24	0ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33982

Flow Controller ID: 33982

General Observations/Notes:

Concrete 4.5" thick

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SS-3
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env
Sample Point Location:		Equipment:	
Sampling Depth:	2" Below Concrete	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/16/09	Approximate Purge Volume:	166 ml/min

start purge 1456 End purge 1501

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min) Inside/Outside	Barometric Pressure (inches of Hg)	PID (ppb)
1502	-30	64.7	37.2		30.23	0 ppm
1515	-15.5	65.2	36.8		30.23	0 ppm
1525	-7	65.0	36.2		30.24	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 36039

Flow Controller ID: 36039

General Observations/Notes:

Concrete 3" thick

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SS-4
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra ENV.
Sample Point Location:		Equipment:	
Sampling Depth:	2" below concrete	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/16/09 9:40AM 10:08AM	Approximate Purge Volume:	157 ml/min

start purge 9:34 AM

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min) Inside Bldg	Barometric Pressure (inches of Hg)	PID (ppb)
9:40 AM	-30	67.1	36.8		30.23	0ppm
9:56 AM	-14.5	67.7	35.9		30.23	0ppm
10:08 AM	-7	67.7	36.7		30.23	0ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 5695

Flow Controller ID: 5695

General Observations/Notes:

Concrete 4" thick

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

Client:		Sample ID:	SS-5
Project:	Target Rock	Boring Equipment:	
Location:		Sealant:	
Project #:	NY001490.0001.00002	Tubing Information:	
Samplers:	Prezorski	Miscellaneous Equipment:	
Sample Point Location:		Subcontractor:	Zebra Env.
Sampling Depth:	2" below concrete	Equipment:	
Time and Date of Collection:	3/16/09 11:05 to 11:39 AM	Moisture Content of Sampling Zone:	
		Approximate Purge Volume:	130 ml/min

start purge 10:57 AM End purge 11:04 AM

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min) ~~Inside Bldg~~	Barometric Pressure (inches of Hg)	PID (ppb)
11:05 AM	7-30	66.3	37.2		30.24	0 ppm
11:21 AM	-17	67.1	37.8		30.26	0 ppm
11:39	-7	67.9	38.2		30.26	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 35134

Flow Controller ID: 35134

General Observations/Notes:

Concrete 5" thick

At start of purge flow rate dropped to 5% from 157 ml/min. Upon drain nearby, Escort states lot of water goes into drain. I did not observe this at site. Flow rate increased to 130 ml/min. Rate held throughout purge.

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Infrastructure, environment, buildings

Soil Vapor Sample Collection Log

		Sample ID:	SS-6
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Envr
Sample Point Location:	SS-6	Equipment:	
Sampling Depth:	2" below concrete	Moisture Content of Sampling Zone:	Dry
Time and Date of Collection:	3/9/09 Start 1527 End 1625	Approximate Purge Volume:	152 ml/min

Concrete 3 3/4"

start 1523 End 1526 purge ok

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1527	-7 -30	68.5	50.3	Inside	29.86	0 ppm
1548	-21	69.0	49.4	Inside	29.86	0 ppm
1613	-10	68.5	45.6	Inside	29.89	0 ppm
1625	-7	67.5	45.7	Inside	29.89	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 25298

Flow Controller ID: 25299

General Observations/Notes:

start vac 7-30, summa taking longer to reach end pressure

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SS-7
Client:	Target Rock	Boring Equipment:	
Project:		Sealant:	
Location:		Tubing Information:	
Project #:	N/00149.000.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Envi.
Sample Point Location:	East Bldg SS-7	Equipment:	
Sampling Depth:	2" Below concrete	Moisture Content of Sampling Zone:	Dry
Time and Date of Collection:	3/9/09 start 10:50 End 11:17	Approximate Purge Volume:	150 ml/min

start 10:46 AM
or ~~End~~ End 10:48 AM purge at

Concrete 4"

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (~~°F~~ or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
10:50	-30	67°	47.9	Indoor	29.72	0 ppm
11:07 AM	-14	66.4	53.5	Indoor	29.71	0 ppm
11:17	-7	68.8	50.0	Indoor	29.70	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 1589

Flow Controller ID: 1589

General Observations/Notes:

At start of purge flow slowed to 79 ml/min from 120 ml/min. Restarted purge at 150 ml/min. Driller state soil very compact when driving down point.

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Soil Vapor Sample Collection Log

		Sample ID:	SS-8
Client:		Boring Equipment:	
Project:	Target Rock	Sealant:	
Location:		Tubing Information:	
Project #:	N/00149.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Subcontractor:	Zebra Env.
Sample Point Location:	SS-8	Equipment:	
Sampling Depth:	2' below concrete	Moisture Content of Sampling Zone:	
Time and Date of Collection:	3/9/09 start 1318 End 1351	Approximate Purge Volume:	150 ml/min

concrete 5"

start 1313 End 1315 purge ok

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppb)
1318	-7-30	67.2	50.9	Indoor	29.78	0 ppm
1345	-9,5	69.4	45.1	Indoor	29,79	0 ppm
1351	-7	68.9	45.3	Indoor	29.78	0 ppm

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 4064

Flow Controller ID: 4064

General Observations/Notes:

Approximating One-Well Volume (for purging):
When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

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Appendix D

Ambient Air Sample Collection Log

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	AA-1
Client:		Outdoor/Indoor:	
Project:	Target Rock	Sample Intake Height:	5'
Location:		Time On/Off:	8:57AM / 4:57 ~~pm~~
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	3/12/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
8:57AM	-29	35.5	54.0		30.35	0
12:16	-19.5	36.1	39.8		30.36	0
1657	-7.5	43.5	30.1		30.32	0

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 5583

Flow Controller ID: 5583

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Appendix E

Water Sampling Logs

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Water Sampling Log

Project: Target Rock | Project No.: NY001490.0001.00002 | Page: 1 of 1

Site Location: Target Rock Site, East Farmingdale, NY | Date: 3/23/09

Site/Well No.: TRMW-N | Replicate No.: None

Weather: Clear, Sunny, 30°F | Sampling Time: Begin 1401 End 1403

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	30 (29.73)
Depth to Water (ft bmp)	8.81
Water Column in Well (ft)	21.19
Casing Diameter	2" (~~0.01~~ 0.16)
Gallons in Well	3.39
Gallons Pumped/Bailed Prior to Sampling	~~3.66 x 3~~ 3.39 ≥ 11
Sample Pump Intake Setting (ft bmp)	22'
Pumping Rate (gpm)	1 gpm
Evacuation Method	3 Well Volume
Sampling Method	Low flow - Rediflow pump
Purge Time	Begin 1341 End 1352

Field Parameters

Field Parameters	I	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	Mild	Mild	Mild	Mild
Appearance	Turbid	Clear	Clear	Clear
	I	1V	2V	3V
pH (s.u.)	5.81	6.02	6.23	6.6
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	372	335	383	370
Temperature (°C)	9.4	10.5	5.8	10.7
DO (mg/L)	—	—	—	—
Turbidity (NTU)	94.6	20.0	8.2	9.4
Time	1341	1345	1349	1352
DTW (ft bmp)	8.89	8.91	8.91	8.91

Remarks: At start of 3V purge, pump was @ 22'. Then pump was lowered by 3 ~~ft~~ & rate lowered at end of 3 well volume purge. Sample taken from lowered low rate flow.

Constituents Sampled: See COC | Sampling Personnel: P.P & S.D

Prezorks 1 pas

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Millisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Milligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project: Target Rock | Project No.: NY001490.0001.00002 | Page: 1 of 1

Site Location: East Farmingdale, NY | Date: 3/23/09

Site/Well No.: TRMW-2 | Replicate No.: None

Weather: Clear, Sunny, 30°F | Sampling Time: Begin 1555 End 1557

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	30 (30.78)
Depth to Water (ft bmp)	10.30
Water Column in Well (ft)	20.48 (19.7)
Casing Diameter	2" (0.16)
Gallons in Well	3.27
Gallons Pumped/Bailed Prior to Sampling	3.27 x 3 = 9.83
Sample Pump Intake Setting (ft bmp)	22'
Pumping Rate (gpm)	1 gpm
Evacuation Method	3 well volume
Sampling Method	Low flow - Redi flow pump
Purge Time	Begin 1546 End 1556

Field Parameters

	1	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	Mild	Mild	Mild	Mild
Appearance	Clear (Some turbidity)	Clear	Clear	Clear
	1	1V	2V	3V
pH (s.u.)	6.37	6.31	6.27	6.56
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	323	313	299	275
Temperature (°C)	11.6	14.2	12.0	13.1
DO (mg/L)	—	—	—	—
Turbidity (NTU)	191	113	28.5	15.5
Time	1546	1549	1552	1556
DTW (ft bmp)	10.53	10.53	10.53	10.59

Remarks: Pump set at 22' for 3 well volume purge. After purge, pump lowered 3' + rate lowered to low flow. Sample taken from lowered low flow rate.

Constituents Sampled: See COC | Sampling Personnel: P.P & S.D Prezorski / Das

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Millisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Milligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project: Target Rock | Project No.: NY001490.0001.00002 | Page: 1 of 1

Site Location: Target Rock, East Farmingdale, NY | Date: 3/23/09

Site/Well No.: TRMW-3 | Replicate No.: None

Weather: Clear, Sunny, 30°F | Sampling Time: Begin 1758 End 1800

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	27.48 (30)
Depth to Water (ft bmp)	8.35
Water Column in Well (ft)	21.65
Casing Diameter	2" (0.16)
Gallons in Well	3.46
Gallons Pumped/Bailed	~~3.46~~ X 3
Prior to Sampling	11 ~~10 min~~
Sample Pump Intake	
Setting (ft bmp)	22'
Pumping Rate (gpm)	1 gpm
Evacuation Method	3 well volume
Sampling Method	Low flow - Redi flow pump
Purge Time	Begin 1738 End 1749

Field Parameters

	I	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	None	None	None	None
Appearance	Clear	Clear	Clear	Clear
pH (s.u.)	6.43	6.41	6.43	6.53
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	338	314	313	307
Temperature (°C)	11.7	13.4	12.1	12.2
DO (mg/L)	—	—	—	—
Turbidity (NTU)	50.4	10.07	3.94	3.90
Time	1738	1742	1746	1749
DTW (ft bmp)	8.37	8.43	8.43	8.48

Remarks: Pump set @ 22' for 3 WV purge. Then pump was lowered approx 1.5' & rate lowered. Sample taken from lowered low flow rate.

Constituents Sampled: See COC | Sampling Personnel: P.P 2 S.D Prezorski / Das

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Millisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Milligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project: Target Rock | Project No.: NY001490.0001.00002 | Page: 1 of 1

Site Location: East Farmingdale, NY | Date: 3/23/09

Site/Well No.: TRMW-4 | Replicate No.: REP032309

Weather: Clear, Sunny, 35°F | Sampling Time: Begin 1705 End 1708

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	45 (43.80)
Depth to Water (ft bmp)	11.20
Water Column in Well (ft)	33.8
Casing Diameter	2" (0.16)
Gallons in Well	5.41
Gallons Pumped/Bailed Prior to Sampling	~~5.41~~ x 3 = 16.2
Sample Pump Intake Setting (ft bmp)	37'
Pumping Rate (gpm)	1gpm
Evacuation Method	3 well volume purge
Sampling Method	Low Flow - Redi Flow pump
Purge Time	Begin 1642 End 1659

Field Parameters

	1	1V	2V	3V
Color	Yellow	Colorless	Colorless	Colorless
Odor	Mild	Mild	Mild	Mild
Appearance	Turbid	Clear	Clear	Clear
	1	1V	2V	3V
pH (s.u.)	6.38	6.36	6.44	6.37
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	276.5	296	291	285.6
Temperature (°C)	8.9	12.6	12.9	12.6
DO (mg/L)	—	—	—	—
Turbidity (NTU)	139	27.9	24.6	10.79
Time	1642	1647	1653	1659
DTW (ft bmp)	11.20	11.21	11.21	11.21

Remarks: Pump set at 37' for 3 well volume purge. Pump lowered 3' & rate lowered prior to sample collection. Sample taken from lowered low flow rate.

Constituents Sampled: See COC | Sampling Personnel: Prezorski / Das

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Millisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Milligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project: TARGET ROCK Project No.: NY001490.0001.00002
Site Location: Target Rock Site, East Farmingdale, NY Date: 3/23/09
Well No.: TRMW-5 Replicate No.: ~~None~~ MS/MSD Weather: 40s
Sampling Personnel: Prezorski, Das Sampling Time: Begin 12:42 End 12:44

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	37.31 (40)
Depth to Water (ft bmp)	9.40
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	30.6
Casing Diameter	4" (.65)
Gallons in Well	19.89 ×3
Gallons Purged Prior to Sampling	60
Pump Intake Setting (ft bmp)	22' bls.
Packer Pressure (psi)	—
Pumping Rate (gpm)	1.5 gl/min
Evacuation Method	3 well volume
Sampling Method	Low Flow
Purge Time	Begin 11:50am End

Field Parameters

	I	1V	2V	3V
Color	Yellowish	Colorless	Colorless	Colorless
Odor	None	None	None	None
Appearance	Turbid	Clear	Clear	Clear
pH (s.u.)	6.13	6.00	6.13	6.13
Conductivity (mS/cm) or (µmhos/cm) [1]	490	435	367	457
Temperature (°C)	13.4	13.7	14.2	14.5
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	249	21.2	12.6	11.9
Time	11:50am	12:09	12:18	12:30
DTW (ft bmp)	9.4	9.7	9.5	9.5

Remarks: Silt on M-scope probe
1.5 gl/min. MS/MSD sample collected.
Pump set at 22' for 3 well purge. Pump lowered 4-5' & rate lowered prior to sample collection. sample taken from lowered low flow rate.

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm at wellhead

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	~~4" = 0.65~~
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Appendix F

Indoor Air Sample Collection Logs

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-1
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	9:05 AM / 1709
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or ~~°C~~)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
9:05	-7.30	46	63%	17mph from E	30.16	
1337	-17	44.1	76%	17mph from E	30.10	
1709	-8.5	44.1	93%	17mph from E	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 34481

Flow Controller ID: 34481

Rep042009
34032 canister ID
1339 - 15
1653 = -7

General Observations/Notes:

Rep042009 is IA-1

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-2
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	8:40 AM / 1619
Project #:	NY001496.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
8:40	-7.36	46	63	17mph from E	30.16	
1340	-13	44.1	76	17mph from E	30.10	
1619	-7	42.8	93	14mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33787

Flow Controller ID: 33787

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-3
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	8:44AM / 1642
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F) or ~~°C~~	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
8:44	-30	46	63	17mph from E	30.16	
1339	-14	44.1	76	17mph from E	30.10	
1642	-7.5	42.8	100	18 mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33963

Flow Controller ID: 33963

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-4
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	9:00 AM / 1634
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (~~°F~~ or ~~°C~~)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
9:00	7-30	46	63%	17mph from E	30.16	
1333	-15	44.1	76%	17mph from E	30.10	
1634	-7	42.8	100%	18mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 36043

Flow Controller ID: 36043

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-5
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	8:50 AM / 1613
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F) or ~~°C~~	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
8:50	-7.30	46	63	17 mph from E	30.16	
1334	-12.5	44.1	76	17 mph from E	30.10	
1613	-~~3~~7	42.8	93	14 mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: R-5

Flow Controller ID: R.5

General Observations/Notes:

IA-5

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Infrastructure, environment, buildings

Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-6
Client:	Curtiss-Wright	~~Outdoor~~/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	8:47AM / 1611
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	PRZOSK.	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F) ~~or °C~~	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
8:47	-30	46.0	63%	17mph from E	30.16	
1335	-15	44.1	76%	17mph from E	30.10	
1611	-9	42.8	93	13mph from E	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33970

Flow Controller ID: 33970

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

ARCADIS
Infrastructure, environment, buildings

Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-7
Client:	Curtiss-Wright	Outdoor/Indoor:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	9:19 AM / 1629
Project #:	NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
9:18	7-30	46.0	63	17 mph from E	30.16	
1343	-16	44.1	76	17 mph from E	30.10	
1629	-9	42.8	93	14 mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 33893

Flow Controller ID: 33893

General Observations/Notes:

IA-7

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

ARCADIS
Infrastructure, environment, buildings

Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-8
Client:	Curtiss-Wright	Outdoor/~~Indoor~~:	
Project:	Target Rock	Sample Intake Height:	3.5' above floor
Location:	East Farmingdale, NY	Time On/Off:	9:16 AM / 1625
Project #:	NY001496.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/20/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or °C)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
9:16	-7.8	46	63	17 mph from E	30.16	
1345	-14	44.1	76	17 mph from E	30.10	
1625	-7.5	42.8	93	14 mph from ENE	30.00	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 35283

Flow Controller ID: 35283

General Observations/Notes:

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

ARCADIS
Infrastructure, environment, buildings

Indoor/Ambient Air Sample Collection Log

		Sample ID:	IA-9
Client:	Curtiss-Wright	Outdoor/Indoor:	
Project:	Target Rock	Sample Intake Height:	3'
Location:	Accounting office	Time On/Off:	9:25AM / 1800
Project #:	~~Env~~ NY001490.0001.00002	Miscellaneous Equipment:	
Samplers:	Prezorski	Date of Collection :	4/21/09

Canister Vacuum, Weather Information and PID Readings:

Time	Canister Vacuum (inches of Hg)	Temperature (°F or ~~°C~~)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure (inches of Hg)	PID (ppm)
9:25	-7.0	48.2	100	6 mph from South	29.78	
1406	-17	48.9	100	7 mph from SE	29.74	
1659	-10	54.0	97	3 mph from ESE	29.67	
1800	-8.5	51.1	100	7 mph from South	29.68	

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 12668

Flow Controller ID: 12668

General Observations/Notes:

Sample placed in west Bldg. office space

Record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

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Appendix G

Community Air Monitoring Plan Data

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/9/09

Instrument: MiniRae 2000 PID Dust Monitor Model: MiniRae 2000 10.6 AN Serial #: 12370 3656 11.7 Lamp

Calibration Method: (material used, settings, etc.)	zeroed out	Cal gas Isobutylene ok
Calibration Results:	0ppm 0 mg/m3	100 ppm
Calibrated By:	Prezorski	

Activity Being Monitored	Compounds Monitored	Time	Reading	Action Required? Y/N
SS-7 sub slab soil vapor sampling	PID, Dust Monitor	9:30 AM	0ppm, .001 mg/m3	N
↓		10:40	0ppm, .003 mg/m3	N
↓		11:20	0ppm, .000 mg/m3	N
SS-8 sub slab soil vapor sampling		13:00	0ppm, .003 mg/m3	N
↓		13:55	0ppm, .000 mg/m3	N
SS-6 sub slab soil vapor sampling		15:00	0ppm, .000 mg/m3	N
↓		15:40	0ppm, .000 mg/m3	N
↓		16:30	0ppm, .001 mg/m3	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/12/09

Instrument: MiniRAE 2000 PID Dust monitor Model: MiniRAE 2000 10.0 eV Serial #: 12370 11.7 Lamp 3656

Calibration Method: (material used, settings, etc.)	zeroed out cal gas Isobutylene
Calibration Results:	0ppm 0mg/m3 100ppm OK
Calibrated By:	Prezorski

Activity Being Monitored	Compounds Monitored	Time	Reading ppm	Reading mg/m3	Action Required? Y/N
SV-9		9:00 AM	0	0	N
SV-9		9:00 AM	0	0	N
SV-2		10:00 AM	0	0	N
SV-2		11:00 AM	0	0	N
SV-1		12:00 PM	0	0	N
SV-7		1330	0	0	N
SV-7		1410	0	0	N
SV-5		1530	0	0	N
SV-5		1630	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/13/09

Instrument: PID Dust Monitor Model: MiniRae 2000 1000 AN Serial #: 1916 3656

Calibration Method: (material used, settings, etc.)	zeroed out cal Gas Isobutylene
Calibration Results:	0 ppm 0 mg/m3 100 ppm OK
Calibrated By:	Prezorski

Activity Being Monitored	Compounds Monitored	Time	Reading ppm	Reading mg/m3	Action Required? Y/N
AGW-9		7:48 AM	0	.001	N
↓		8:10 AM	0	.002	N
		9:17 AM	0	0	N
		10:43 AM	0	.002	N
↓		11:40	0	.001	N
AGW-10		1310	0	.001	N
AGW-10		1412	0	0	N
AGW-10		1520	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/16/09

Instrument: PID Rae Monitor Model: MiniRae 2000 PGM-7600 Serial #: 1916 3656

Calibration Method: (material used, settings, etc.)	Zeroed out cal Gas Isobutylene
Calibration Results:	0 ppm 0 mg/m3 100 ppm ok
Calibrated By:	Prezorski

Activity Being Monitored	Compounds Monitored	Time	Reading ppm	Reading mg/m3	Action Required? Y/N
SS-4		8:55 AM	0	0	N
SS-4		9:20	0	0	N
SS-5		10:38	0	0	N
SS-5		11:40	0	0	N
SS-1		1320	0	0	N
SS-3		1438	0	0	N
SS-3		1520	0	0	N
SS-2		1620	0	0	N
SS-2		1645	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/17/09

Instrument: PID Dust Monitor Model: MiniRae 2000 1000 AW Serial #: 1916 3656

Calibration Method: (material used, settings, etc.)	Zeroed at Cal Gas Isobutylene
Calibration Results:	0 ppm 0 mg/m3 100 ppm OK
Calibrated By:	Breeze-Ki

Activity Being Monitored	Compounds Monitored	Time	Reading (ppm)	Reading (mg/m3)	Action Required? Y/N
AGW-8		8:20 AM	0	0	N
AGW-8		9:45	0	0	N
AGW-8		11:10	0	0	N
AGW-1		1305	0	0	N
AGW-1		1430	0	0	N
AGW-1		1520	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/19/09

Instrument: PID Rust Mini Model: MiniRAE 2000 10.0 eV Serial #: 1916 3656

Calibration Method: (material used, settings, etc.)	Zeroed out Cal Gas Isobutylene
Calibration Results:	0 ppm 0 mg/m3 100 ppm ok
Calibrated By:	Prezorski

Activity Being Monitored	Compounds Monitored	Time	Reading (ppm)	Reading (mg/m3)	Action Required? Y/N
AGW-7		7:50	0	0	N
AGW-7		8:50	0	0	N
AGW-7		9:40	0	0	N
AGW-2		10:50	0	0	N
AGW-2		11:30	0	0	N
AGW-2		12:40	0	0	N
AGW-2		1340	0	0	N
AGW-2		1420	0	0	N
AGW-11		1540	0	0	N
AGW-11		1655	0	0	N
TRMW-2		1715	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Real Time Air Monitoring Data Collection Form

Document all air monitoring conducted on the Site below based on Section E of the HASP. Keep this form with the project files.

Site Name: Target Rock Date: 3/19/09

Instrument: PID Model: MiniRae 2000 Serial #: 1916

Post Monitor 100 AV 3656

Calibration Method: (material used, settings, etc.)	Zeroed out	Cal Gas Isobutylene
Calibration Results:	0ppm 0 mg/m3	100 ppm ok
Calibrated By:	Prezorki	

Activity Being Monitored	Compounds Monitored	Time	Reading ppm	Reading mg/m3	Action Required? Y/N
AGW-3		9:00 AM	0	0	N
AGW-3		9:20	0	0	N
AGW-4		10:38	0	0	N
AGW-4		11:50	0	0	N
AGW-5		1305	0	0	N
AGW-5		1430	0	0	N
AGW-6		1525	0	0	N
AGW-11		1630	0	0	N

Describe Any Actions Taken as a Result of this Air Monitoring and Why:

ARCADIS

Appendix H

Phase II Investigation Report
Hydrogeologic Cross-Sections,
Lawler, Matusky & Skelly Engineers
(1993)

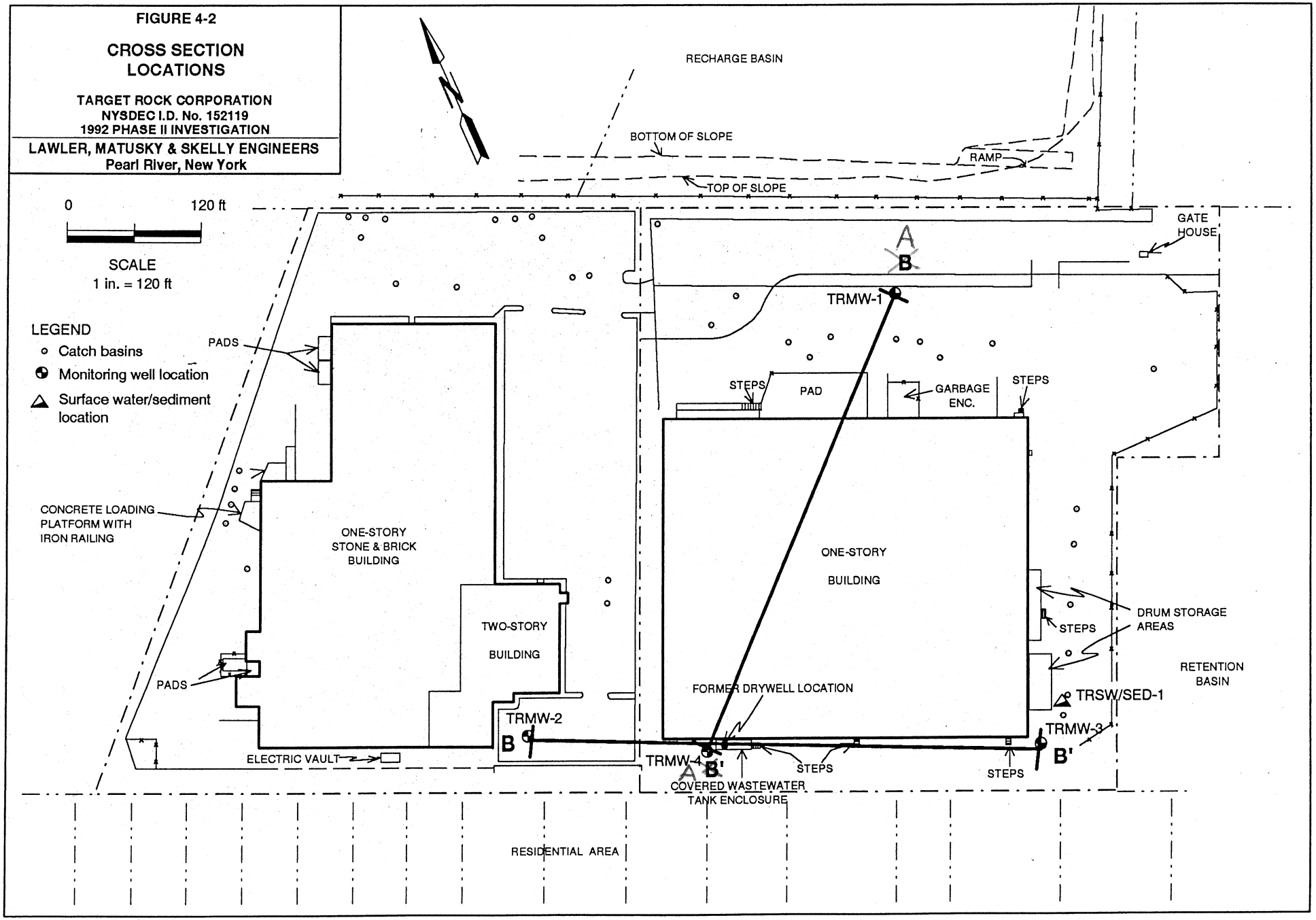
FIGURE 4-2
CROSS SECTION LOCATIONS
TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1992 PHASE II INVESTIGATION
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York
0
120 ft
SCALE
1 in. = 120 ft
LEGEND
Catch basins
Monitoring well location
Surface water/sediment location
RECHARGE BASIN
BOTTOM OF SLOPE
RAMP
TOP OF SLOPE
GATE HOUSE
A
B
TRMW-1
PADS
STEPS
PAD
GARBAGE ENC.
STEPS
CONCRETE LOADING PLATFORM WITH IRON RAILING
ONE-STORY STONE & BRICK BUILDING
ONE-STORY BUILDING
TWO-STORY BUILDING
DRUM STORAGE AREAS
STEPS
RETENTION BASIN
PADS
FORMER DRYWELL LOCATION
TRSW/SED-1
TRMW-2
B
TRMW-3
B'
ELECTRIC VAULT
TRMW-4
A'
B'
STEPS
STEPS
COVERED WASTEWATER TANK ENCLOSURE
RESIDENTIAL AREA

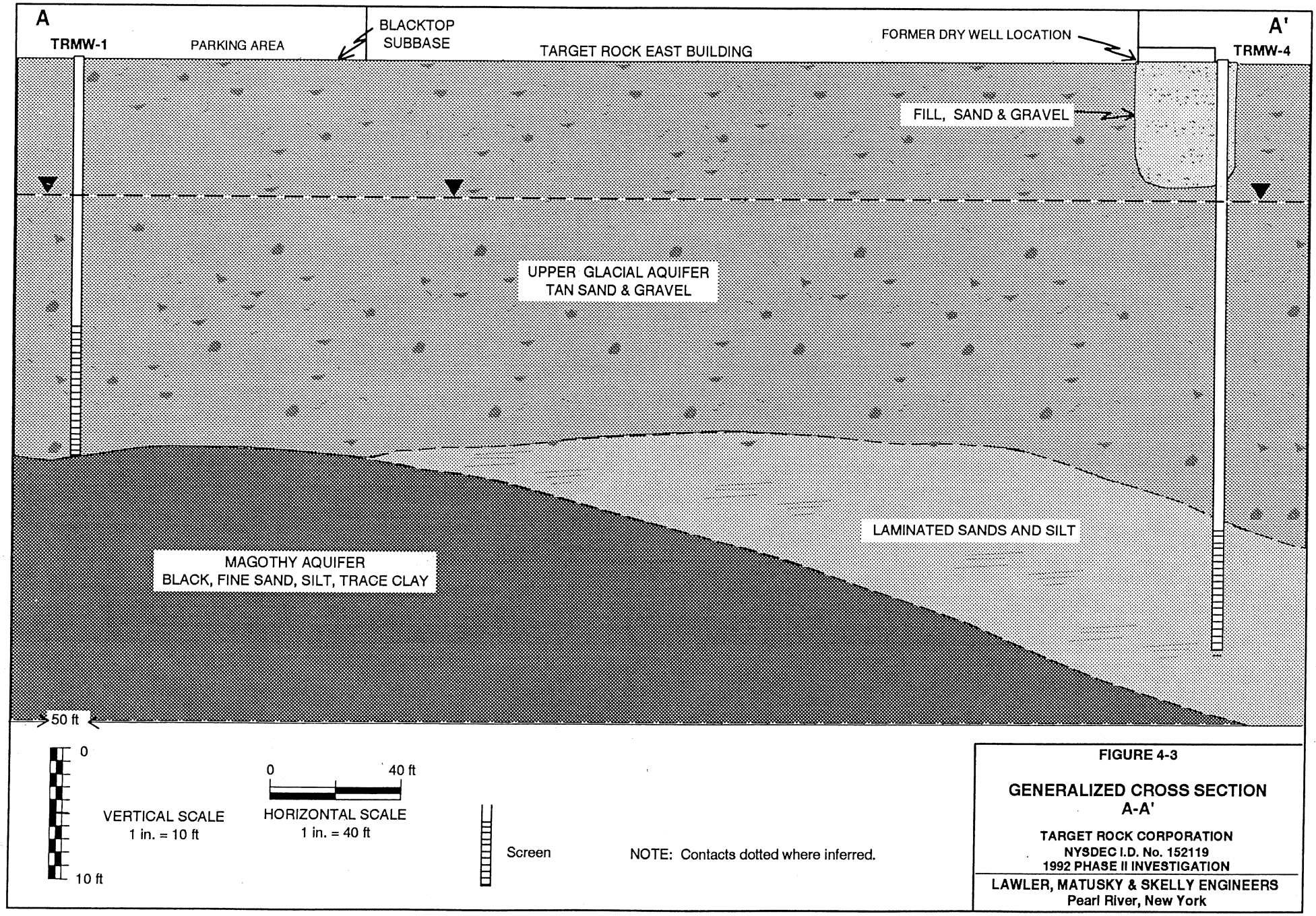

FIGURE 4-3

GENERALIZED CROSS SECTION
A-A'

TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1992 PHASE II INVESTIGATION

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

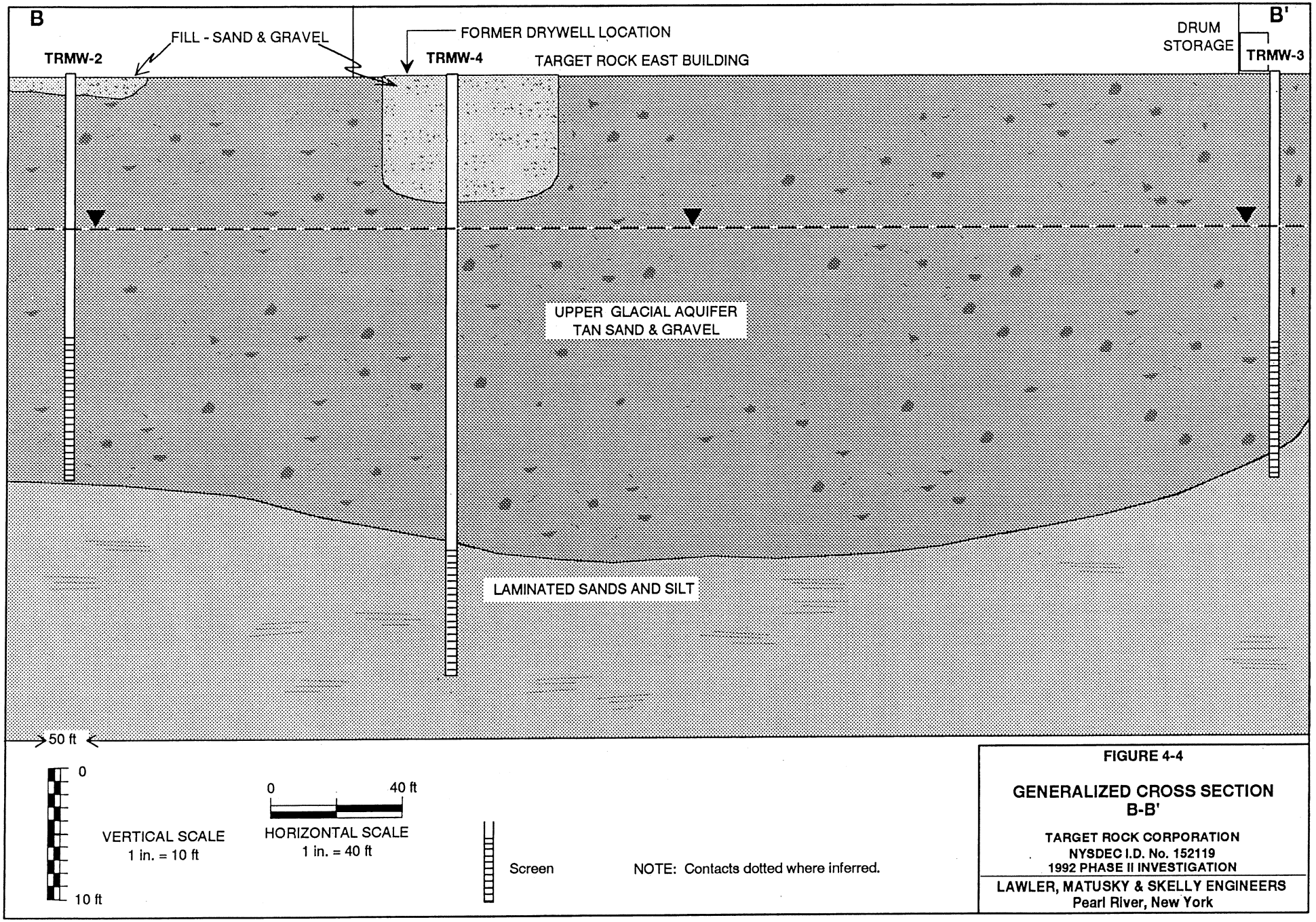

FIGURE 4-4

GENERALIZED CROSS SECTION B-B'

TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1992 PHASE II INVESTIGATION

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

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Appendix I

Phase II Investigation Report
Groundwater Contour Maps, Lawler, Matusky & Skelly Engineers (1993)

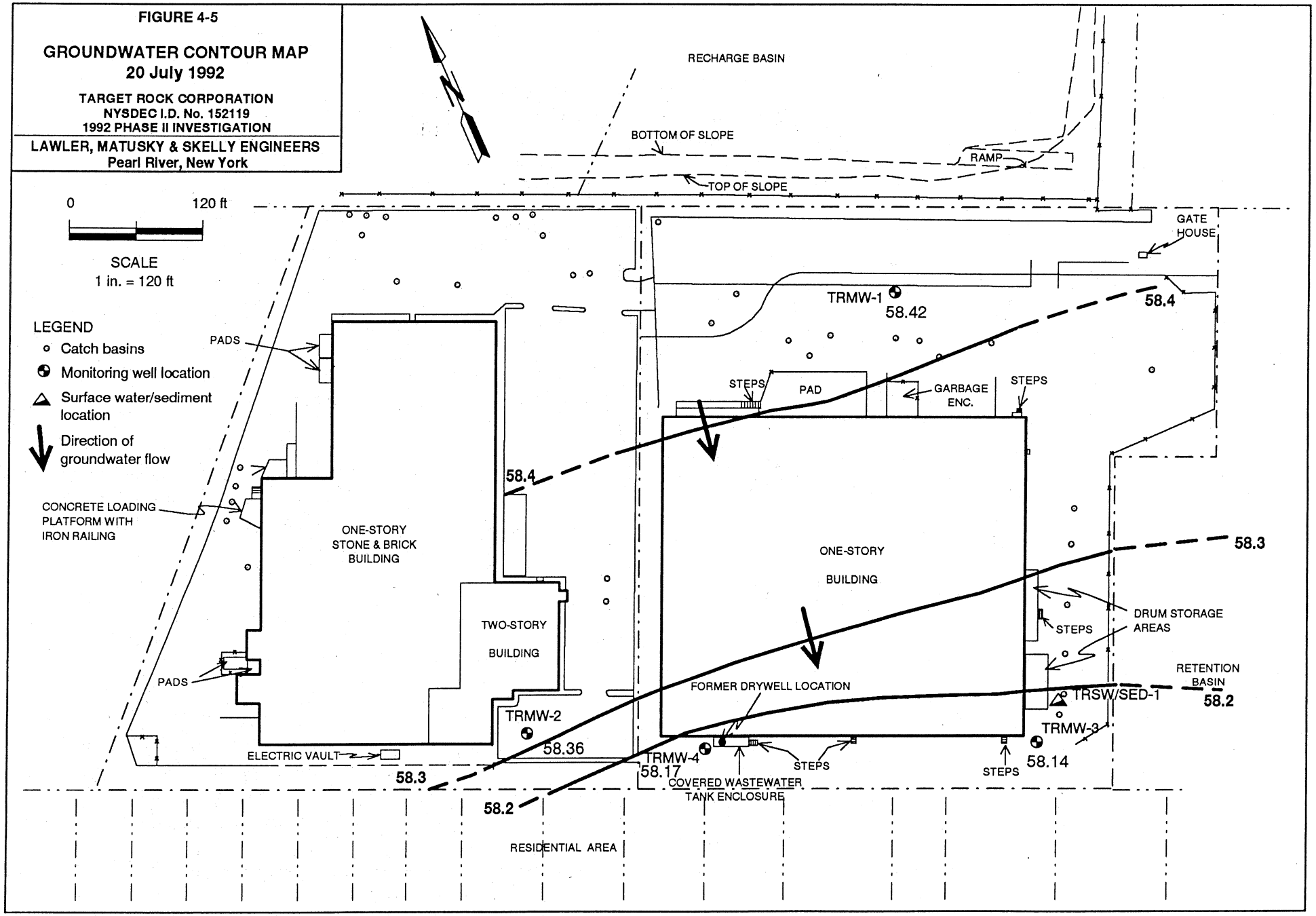


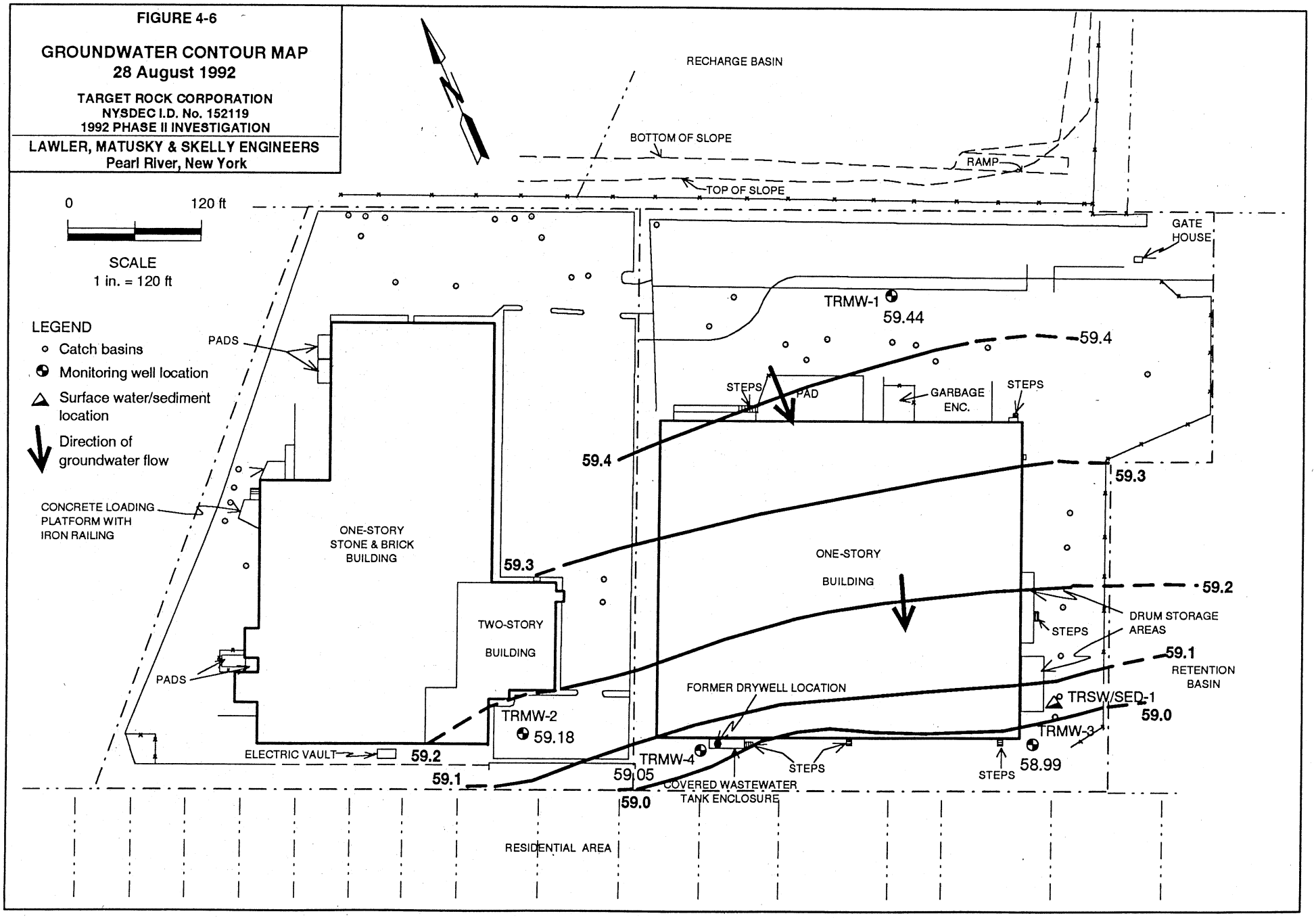
FIGURE 4-5
GROUNDWATER CONTOUR MAP
20 July 1992
TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1992 PHASE II INVESTIGATION
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York
0
120 ft
SCALE
1 in. = 120 ft
LEGEND
Catch basins
Monitoring well location
Surface water/sediment location
Direction of groundwater flow
RECHARGE BASIN
BOTTOM OF SLOPE
RAMP
TOP OF SLOPE
GATE HOUSE
TRMW-1
58.42
58.4
PADS
STEPS
PAD
GARBAGE ENC.
STEPS
CONCRETE LOADING PLATFORM WITH IRON RAILING
ONE-STORY STONE & BRICK BUILDING
ONE-STORY BUILDING
58.3
TWO-STORY BUILDING
DRUM STORAGE AREAS
STEPS
PADS
FORMER DRYWELL LOCATION
RETENTION BASIN
58.2
TRSW/SED-1
TRMW-2
58.36
TRMW-3
ELECTRIC VAULT
TRMW-4
58.17
STEPS
58.14
STEPS
58.3
COVERED WASTEWATER TANK ENCLOSURE
58.2
RESIDENTIAL AREA

FIGURE 4-6

GROUNDWATER CONTOUR MAP
28 August 1992

TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1992 PHASE II INVESTIGATION

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York



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Appendix J

Data Usability Summary Reports

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation – Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG# 220-8404

Analyses Performed By:
Test America Laboratories
Shelton, Connecticut

Report: # 10140R
Review Level: Tier III
Project: NY0001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #220-8404 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
FB031309	220-8404-1FB	Water	03/13/2009		X				
TB031309	220-8404-2TB	Water	03/13/2009		X				
AGW-9(10-11)	220-8408-3	Water	03/13/2009		X				
AGW-9(16-17)	220-8408-4	Water	03/13/2009		X				
AGW-9(28-29)	220-8408-5	Water	03/13/2009		X				
AGW-9(48-49)	220-8408-6	Water	03/13/2009		X				
AGW-10(10-11)	220-8408-7	Water	03/13/2009		X				
AGW-10(16-17)	220-8408-8	Water	03/13/2009		X				
AGW-9(7.5-9.5)	220-8408-9	Soil	03/13/2009		X				
AGW-9(13-15)	220-8408-10	Soil	03/13/2009		X				
AGW-10(8-10)	220-8408-11	Soil	03/13/2009		X				
AGW-10(13-15)	220-8408-12	Soil	03/13/2009		X				

`

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AGW-9(48-49)	Acetone	Detected sample results >RL and <BAL	"UB" at detected sample concentration
AGW-9(13-15)	Acetone	Detected sample results <RL and <BAL	"UB" at the PQL
AGW-9(7.5-9.5) AGW-9(13-15) AGW-10(8-10) AGW-10(13-15)	Methylene Chloride		

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
AGW-9(48-49) AGW-10(10-11)	CCV %D	Dichlorodifluoromethane	58.1%
		1,1,2-Trichloro-1,2,2-trifluoroethane	44.9%
		Cyclohexane	28.7%
		Trichlorofluoromethane	59.3%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD was not performed on a sample location associated with this SDG.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.
Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
FB031309 TB031309 AGW-9(10-11) AGW-9(16-17) AGW-9(28-29) AGW-9(48-49) AGW-10(10-11) AGW-10(16-17)	Dichlorodifluoromethane	>UL
AGW-9(48-49) AGW-10(16-17)	Dichlorodifluoromethane	>UL
	Trichlorofluoromethane	>UL

Sample Locations	Compound	LCS Recovery
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL
	Styrene	< (LL) but > 10%

The criteria used to evaluate the LCS recoveries are presented in the following table.
In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Note: Sample results were not qualified as rejected (R) due to the deviations listed above.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

Sample ID	Compound
AGW-9(10-11) AGW-9(48-49) AGW-10(13-15)	Tentatively Identified Compounds, (TICs) detected.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier IV Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

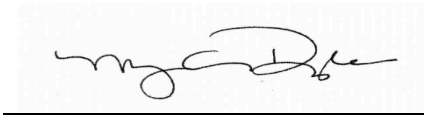
SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
220-8404-1FB	03/13/2009	SW-846	FB031309	Water	No	--	--	--	--	VOC- LCS %Recovery
220-8404-2TB	03/13/2009	SW-846	TB031309	Water	No	--	--	--	--	VOC-LCS %Recovery
220-8408-3	03/13/2009	SW-846	AGW-9(10-11)	Water	No	--	--	--	--	VOC- LCS %Recovery
220-8408-4	03/13/2009	SW-846	AGW-9(16-17)	Water	No	--	--	--	--	VOC- LCS %Recovery
220-8408-5	03/13/2009	SW-846	AGW-9(28-29)	Water	No	--	--	--	--	VOC- LCS %Recovery
220-8408-6	03/13/2009	SW-846	AGW-9(48-49)	Water	No	--	--	--	--	VOC –Blank contamination, LCS %Recovery CCV%D
220-8408-7	03/13/2009	SW-846	AGW-10(10-11)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8408-8	03/13/2009	SW-846	AGW-10(16-17)	Water	No	--	--	--	--	VOC- LCS %Recovery
220-8408-9	03/13/2009	SW-846	AGW-9(7.5-9.5)	Soil	No	--	--	--	--	VOC –Blank contamination
220-8408-10	03/13/2009	SW-846	AGW-9(13-15)	Soil	No	--	--	--	--	VOC –Blank contamination
220-8408-11	03/13/2009	SW-846	AGW-10(8-10)	Soil	No	--	--	--	--	VOC –Blank contamination
220-8408-12	03/13/2009	SW-846	AGW-10(13-15)	Soil	No	--	--	--	--	VOC –Blank contamination

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE: 

DATE: May 11, 2009

PEER REVIEW: Dennis Capria

DATE: May 14, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **FB031309**

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **FB031309**

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	53 - 125
4-Bromofluorobenzene	86	73 - 127
Dibromofluoromethane	90	54 - 137
Toluene-d8 (Surr)	98	63 - 121

Client: ARCADIS U.S., Inc.

Analytical Data

Client Sample ID: FB031309

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 0

Cas Number	Analyte Tentatively Identified Compound	RT	Est. Result (ug/L)	Qualifier
	None			

Client: ARCADIS U.S., Inc.

Analytical Data

Client Sample ID: TB031309

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Analytical Data

Client Sample ID: **TB031309**

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 125
4-Bromofluorobenzene	87	73 - 127
Dibromofluoromethane	92	54 - 137
Toluene-d8 (Surr)	101	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: TB031309

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(10-11)**

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.2	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	6.0		1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	29		0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	1.1	J	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	10		0.81	5.0
Toluene	9.9		0.72	5.0
1,1,1-Trichloroethane	18		0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	2.2	J	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	35		2.3	5.0
cis-1,2-Dichloroethene	1.6	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Analytical Data

Client Sample ID: **AGW-9(10-11)**

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87	53 - 125
4-Bromofluorobenzene	79	73 - 127
Dibromofluoromethane	86	54 - 137
Toluene-d8 (Surr)	92	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(10-11)

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 11

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
98-82-8	Benzene, (1-methylethyl)-	9.86	2.4	J N
611-14-3	Benzene, 1-ethyl-2-methyl-	10.38	14	J N
108-67-8	Benzene, 1,3,5-trimethyl-	10.48	5.8	J N
95-63-6	Benzene, 1,2,4-trimethyl-	10.81	11	J N
526-73-8	Benzene, 1,2,3-trimethyl-	11.17	2.9	J N
496-11-7	Indane	11.26	9.5	J N
95-13-6	Indene	11.52	2.9	J N
91-20-3	Naphthalene	12.79	15	
91-57-6	Naphthalene, 2-methyl-	13.53	2.6	J N
90-12-0	Naphthalene, 1-methyl-	13.63	1.8	J N
569-41-5	Naphthalene, 1,8-dimethyl-	14.26	23	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(16-17)**

Lab Sample ID: 220-8404-4
Client Matrix: Water

Date Sampled: 03/13/2009 1021
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.5	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	87	73 - 127
Dibromofluoromethane	91	54 - 137
Toluene-d8 (Surr)	100	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(16-17)**

Lab Sample ID: 220-8404-4
Client Matrix: Water

Date Sampled: 03/13/2009 1021
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(28-29)**

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.3	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(28-29)**

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	53 - 125
4-Bromofluorobenzene	80	73 - 127
Dibromofluoromethane	86	54 - 137
Toluene-d8 (Surr)	93	63 - 121

Client Sample ID: **AGW-9(28-29)**

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Analytical Data

Client Sample ID: AGW-9(48-49)

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	12	B UB	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	4.3	J	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	0.68	J*	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	0.88	J	0.81	5.0
Toluene	0.73	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client Sample ID: AGW-9(48-49)

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	92	54 - 137
Toluene-d8 (Surr)	91	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(48-49)**

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 9

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
115-07-1	Propene	0.99	620	J N
106-98-9	1-Butene	1.23	59	J N
109-67-1	1-Pentene	1.52	92	J N
2402-06-4	Cyclopropane, 1,2-dimethyl-, trans-	1.57	54	J N
627-20-3	2-Pentene, (Z)-	1.69	44	J N
	Unknown	2.08	54	J
592-41-6	1-Hexene	2.50	50	J N
	Unknown Alkene	2.67	28	J
592-43-8	2-Hexene	2.89	22	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(10-11)

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.2	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	1.4	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	2.1	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	3.4	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	1.2	J	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(10-11)

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	53 - 125
4-Bromofluorobenzene	77	73 - 127
Dibromofluoromethane	82	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client Sample ID: **AGW-10(10-11)**

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte Tentatively Identified Compound	RT	Est. Result (ug/L)	Qualifier
	None			

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(16-17)

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.7	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(16-17)**

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	53 - 125
4-Bromofluorobenzene	91	73 - 127
Dibromofluoromethane	107	54 - 137
Toluene-d8 (Surr)	105	63 - 121

Client Sample ID: **AGW-10(16-17)**

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: **0**

Cas Number	Analyte Tentatively Identified Compound	RT	Est. Result (ug/L)	Qualifier
	None			

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid

% Moisture: 9.0

Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		22	U	2.5	22
Dichlorodifluoromethane		5.5	U	0.38	5.5
Benzene		5.5	U	0.63	5.5
Bromodichloromethane		5.5	U	0.33	5.5
Bromoform		5.5	U	0.67	5.5
Bromomethane		5.5	U	2.3	5.5
Methyl Ethyl Ketone		11	U	1.7	11
Trichlorofluoromethane		5.5	U	0.16	5.5
Carbon disulfide		5.5	U	0.45	5.5
Carbon tetrachloride		5.5	U	1.0	5.5
Chlorobenzene		5.5	U	0.65	5.5
1,1,2-Trichloro-1,2,2-trifluoroethane		5.5	U	0.87	5.5
Chloroethane		5.5	U	1.1	5.5
Chloroform		5.5	U	0.37	5.5
Chloromethane		5.5	U	0.86	5.5
Dibromochloromethane		5.5	U	0.38	5.5
1,1-Dichloroethane		5.5	U	0.33	5.5
1,2-Dichloroethane		5.5	U	0.64	5.5
1,1-Dichloroethene		5.5	U	0.64	5.5
1,2-Dichloropropane		5.5	U	0.74	5.5
cis-1,3-Dichloropropene		5.5	U	0.62	5.5
Methyl acetate		5.5	U	0.48	5.5
trans-1,3-Dichloropropene		5.5	U	0.30	5.5
Ethylbenzene		5.5	U	0.77	5.5
2-Hexanone		11	U	1.3	11
Methylene Chloride		22 ~~36~~	~~JB~~ UB	1.2	22
methyl isobutyl ketone		5.5	U	0.60	5.5
Styrene		5.5	U	0.16	5.5
1,1,2,2-Tetrachloroethane		5.5	U	0.57	5.5
Tetrachloroethene		1.7	J	0.89	5.5
Toluene		1.2	J	0.081	5.5
1,1,1-Trichloroethane		5.5	U	0.58	5.5
1,1,2-Trichloroethane		5.5	U	0.41	5.5
Trichloroethene		5.5	U	0.89	5.5
Vinyl chloride		5.5	U	0.25	5.5
Xylenes, Total		5.5	U	0.53	5.5
cis-1,2-Dichloroethene		5.5	U	0.41	5.5
Cyclohexane		5.5	U	0.76	5.5
trans-1,2-Dichloroethene		5.5	U	0.43	5.5
Isopropylbenzene		5.5	U	0.21	5.5
1,3-Dichlorobenzene		5.5	U	0.23	5.5
1,4-Dichlorobenzene		5.5	U	0.74	5.5
1,2-Dichlorobenzene		5.5	U	0.26	5.5
1,2-Dibromo-3-Chloropropane		11	U	5.0	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid

% Moisture: 9.0

Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.5	U	0.82	5.5
1,2-Dibromoethane	5.5	U	0.84	5.5
Methyl tert-butyl ether	5.5	U	0.23	5.5
Methylcyclohexane	5.5	U	0.36	5.5

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	49 - 134
4-Bromofluorobenzene	101	36 - 133
Dibromofluoromethane	83	60 - 130
Toluene-d8 (Surr)	97	51 - 137

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid

% Moisture: 9.0

Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: **0**

Cas Number	Analyte Tentatively Identified Compound	RT	Est. Result (ug/Kg)	Qualifier
	None			

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(13-15)**

Lab Sample ID: 220-8404-10
Client Matrix: Solid

% Moisture: 6.3

Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
Acetone	21 ~~4.9~~	JB UB	2.4	21
Dichlorodifluoromethane	5.3	U	0.37	5.3
Benzene	5.3	U	0.61	5.3
Bromodichloromethane	5.3	U	0.32	5.3
Bromoform	5.3	U	0.65	5.3
Bromomethane	5.3	U	2.2	5.3
Methyl Ethyl Ketone	11	U	1.7	11
Trichlorofluoromethane	5.3	U	0.16	5.3
Carbon disulfide	5.3	U	0.44	5.3
Carbon tetrachloride	5.3	U	1.0	5.3
Chlorobenzene	5.3	U	0.63	5.3
1,1,2-Trichloro-1,2,2-trifluoroethane	5.3	U	0.84	5.3
Chloroethane	5.3	U	1.0	5.3
Chloroform	5.3	U	0.36	5.3
Chloromethane	5.3	U	0.83	5.3
Dibromochloromethane	5.3	U	0.37	5.3
1,1-Dichloroethane	5.3	U	0.32	5.3
1,2-Dichloroethane	5.3	U	0.62	5.3
1,1-Dichloroethene	5.3	U	0.62	5.3
1,2-Dichloropropane	5.3	U	0.72	5.3
cis-1,3-Dichloropropene	5.3	U	0.60	5.3
Methyl acetate	5.3	U	0.47	5.3
trans-1,3-Dichloropropene	5.3	U	0.29	5.3
Ethylbenzene	5.3	U	0.75	5.3
2-Hexanone	11	U	1.3	11
Methylene Chloride	21 ~~3.7~~	~~JB~~ UB	1.2	21
methyl isobutyl ketone	5.3	U	0.59	5.3
Styrene	5.3	U	0.16	5.3
1,1,2,2-Tetrachloroethane	5.3	U	0.56	5.3
Tetrachloroethene	10		0.86	5.3
Toluene	0.51	J	0.079	5.3
1,1,1-Trichloroethane	5.3	U	0.57	5.3
1,1,2-Trichloroethane	5.3	U	0.40	5.3
Trichloroethene	5.3	U	0.86	5.3
Vinyl chloride	5.3	U	0.25	5.3
Xylenes, Total	5.3	U	0.52	5.3
cis-1,2-Dichloroethene	5.3	U	0.40	5.3
Cyclohexane	5.3	U	0.74	5.3
trans-1,2-Dichloroethene	5.3	U	0.42	5.3
Isopropylbenzene	5.3	U	0.20	5.3
1,3-Dichlorobenzene	5.3	U	0.22	5.3
1,4-Dichlorobenzene	5.3	U	0.72	5.3
1,2-Dichlorobenzene	5.3	U	0.26	5.3
1,2-Dibromo-3-Chloropropane	11	U	4.8	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(13-15)**

Lab Sample ID: 220-8404-10
Client Matrix: Solid

% Moisture: 6.3

Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.3	U	0.80	5.3
1,2-Dibromoethane	5.3	U	0.81	5.3
Methyl tert-butyl ether	5.3	U	0.22	5.3
Methylcyclohexane	5.3	U	0.35	5.3

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85	49 - 134
4-Bromofluorobenzene	67	36 - 133
Dibromofluoromethane	75	60 - 130
Toluene-d8 (Surr)	81	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(13-15)**

Lab Sample ID: 220-8404-10
Client Matrix: Solid

% Moisture: 6.3

Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(8-10)**

Lab Sample ID: 220-8404-11
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		20	U	2.3	20
Dichlorodifluoromethane		5.1	U	0.36	5.1
Benzene		5.1	U	0.58	5.1
Bromodichloromethane		5.1	U	0.31	5.1
Bromoform		5.1	U	0.62	5.1
Bromomethane		5.1	U	2.1	5.1
Methyl Ethyl Ketone		10	U	1.6	10
Trichlorofluoromethane		5.1	U	0.15	5.1
Carbon disulfide		5.1	U	0.42	5.1
Carbon tetrachloride		5.1	U	0.97	5.1
Chlorobenzene		5.1	U	0.60	5.1
1,1,2-Trichloro-1,2,2-trifluoroethane		5.1	U	0.80	5.1
Chloroethane		5.1	U	1.0	5.1
Chloroform		5.1	U	0.35	5.1
Chloromethane		5.1	U	0.79	5.1
Dibromochloromethane		5.1	U	0.36	5.1
1,1-Dichloroethane		5.1	U	0.31	5.1
1,2-Dichloroethane		5.1	U	0.59	5.1
1,1-Dichloroethene		5.1	U	0.59	5.1
1,2-Dichloropropane		5.1	U	0.68	5.1
cis-1,3-Dichloropropene		5.1	U	0.57	5.1
Methyl acetate		5.1	U	0.45	5.1
trans-1,3-Dichloropropene		5.1	U	0.27	5.1
Ethylbenzene		5.1	U	0.71	5.1
2-Hexanone		10	U	1.2	10
Methylene Chloride		20 ~~1.7~~	~~JB~~ UB	1.1	20
methyl isobutyl ketone		5.1	U	0.56	5.1
Styrene		5.1	U	0.15	5.1
1,1,2,2-Tetrachloroethane		5.1	U	0.53	5.1
Tetrachloroethene		5.1	U	0.82	5.1
Toluene		5.1	U	0.075	5.1
1,1,1-Trichloroethane		5.1	U	0.54	5.1
1,1,2-Trichloroethane		5.1	U	0.38	5.1
Trichloroethene		5.1	U	0.82	5.1
Vinyl chloride		5.1	U	0.23	5.1
Xylenes, Total		5.1	U	0.49	5.1
cis-1,2-Dichloroethene		5.1	U	0.38	5.1
Cyclohexane		5.1	U	0.70	5.1
trans-1,2-Dichloroethene		5.1	U	0.40	5.1
Isopropylbenzene		5.1	U	0.19	5.1
1,3-Dichlorobenzene		5.1	U	0.21	5.1
1,4-Dichlorobenzene		5.1	U	0.68	5.1
1,2-Dichlorobenzene		5.1	U	0.24	5.1
1,2-Dibromo-3-Chloropropane		10	U	4.6	10

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(8-10)

Lab Sample ID: 220-8404-11
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.1	U	0.76	5.1
1,2-Dibromoethane	5.1	U	0.77	5.1
Methyl tert-butyl ether	5.1	U	0.21	5.1
Methylcyclohexane	5.1	U	0.34	5.1

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	49 - 134
4-Bromofluorobenzene	98	36 - 133
Dibromofluoromethane	76	60 - 130
Toluene-d8 (Surr)	89	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(8-10)**

Lab Sample ID: 220-8404-11
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(13-15)**

Lab Sample ID: 220-8404-12
Client Matrix: Solid

% Moisture: 6.8

Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		21	U	2.4	21
Dichlorodifluoromethane		5.4	U	0.38	5.4
Benzene		5.4	U	0.61	5.4
Bromodichloromethane		5.4	U	0.32	5.4
Bromoform		5.4	U	0.65	5.4
Bromomethane		5.4	U	2.2	5.4
Methyl Ethyl Ketone		11	U	1.7	11
Trichlorofluoromethane		5.4	U	0.16	5.4
Carbon disulfide		5.4	U	0.44	5.4
Carbon tetrachloride		5.4	U	1.0	5.4
Chlorobenzene		5.4	U	0.63	5.4
1,1,2-Trichloro-1,2,2-trifluoroethane		5.4	U	0.85	5.4
Chloroethane		5.4	U	1.1	5.4
Chloroform		5.4	U	0.36	5.4
Chloromethane		5.4	U	0.84	5.4
Dibromochloromethane		5.4	U	0.38	5.4
1,1-Dichloroethane		5.4	U	0.32	5.4
1,2-Dichloroethane		5.4	U	0.62	5.4
1,1-Dichloroethene		5.4	U	0.62	5.4
1,2-Dichloropropane		5.4	U	0.72	5.4
cis-1,3-Dichloropropene		5.4	U	0.60	5.4
Methyl acetate		5.4	U	0.47	5.4
trans-1,3-Dichloropropene		5.4	U	0.29	5.4
Ethylbenzene		5.4	U	0.75	5.4
2-Hexanone		11	U	1.3	11
Methylene Chloride		21 ~~3.9~~	~~J~~ B UB	1.2	21
methyl isobutyl ketone		5.4	U	0.59	5.4
Styrene		5.4	U	0.16	5.4
1,1,2,2-Tetrachloroethane		5.4	U	0.56	5.4
Tetrachloroethene		5.4	U	0.87	5.4
Toluene		0.26	J	0.079	5.4
1,1,1-Trichloroethane		5.4	U	0.57	5.4
1,1,2-Trichloroethane		5.4	U	0.40	5.4
Trichloroethene		5.4	U	0.87	5.4
Vinyl chloride		5.4	U	0.25	5.4
Xylenes, Total		5.4	U	0.52	5.4
cis-1,2-Dichloroethene		5.4	U	0.40	5.4
Cyclohexane		5.4	U	0.74	5.4
trans-1,2-Dichloroethene		5.4	U	0.42	5.4
Isopropylbenzene		5.4	U	0.20	5.4
1,3-Dichlorobenzene		5.4	U	0.23	5.4
1,4-Dichlorobenzene		5.4	U	0.72	5.4
1,2-Dichlorobenzene		5.4	U	0.26	5.4
1,2-Dibromo-3-Chloropropane		11	U	4.9	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(13-15)

Lab Sample ID: 220-8404-12
Client Matrix: Solid

% Moisture: 6.8

Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.4	U	0.80	5.4
1,2-Dibromoethane	5.4	U	0.82	5.4
Methyl tert-butyl ether	5.4	U	0.23	5.4
Methylcyclohexane	5.4	U	0.35	5.4

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	49 - 134
4-Bromofluorobenzene	110	36 - 133
Dibromofluoromethane	87	60 - 130
Toluene-d8 (Surr)	101	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(13-15)**

Lab Sample ID: 220-8404-12
Client Matrix: Solid

% Moisture: 6.8

Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524

Analysis Batch: 220-25466

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: **2**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.43	3.1	J
141-78-6	Ethyl Acetate	3.33	37	J N

ARCADIS

Laboratory Task Order No./P.O. No. Target Rock

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NY001490.0001.00002

Project Location East Farmingdale, NY

Laboratory Test America - Shelton

Project Manager Mike Wolfert

Sampler(s)/Affiliation Preziosi

8404

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOA TCL VOC	2oz Jar TCL VOC (SVOC)					Remarks	Total
FB031309	L	3/13/09	1	2							2
TB031309			2	2						Sample taken 1520	2
AGW-9 (10-11)		10:08 AM	3	2							2
AGW-9 (16-17)		10:21 AM	4	2							2
AGW-9 (28-29)		10:46 AM	5	2							2
AGW-9 (48-49)		11:35 AM	6	3						All 3 vials have headspace. (KB) 3/14/09	3
AGW-10 (10-11)		1412	7	2							2
AGW-10 (16-17)		1430	8	2							2
AGW-9 (7.5-9.5)	S	3/13/09 8:50 AM	9		1						1
AGW-9 (13-15)		9:10 AM	10		1						1
AGW-10 (8-10)		1335	11		1						1
AGW-10 (13-15)		1355	12		1						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 21

Relinquished by:		Organization: Arcadis	Date 3/13/09	Time 1630	Seal Intact? Yes No N/A	
Received by:		Organization: Test America CT	Date 3/13/09	Time 1630		
Relinquished by:		Organization: Test America CT	Date 3/13/09	Time 2010	Seal Intact? Yes No N/A	
Received by:		Organization:	Date / /	Time		

Special Instructions/Remarks: Report to Mike Wolfert & Chris Keen

2-Week TAT

passed rad screen 1.60

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex OP ☒ Lab Courier ☐ Other

SPECIFY

AG 05-12001

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2009

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation – Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG# 220-8431

Analyses Performed By:
Test America Laboratories
Shelton, Connecticut

Report: # 10141R
Review Level: Tier III
Project: NY0001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #220-8431 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
FB031709	220-8431-1EB	Water	03/17/2009		X				
TB031709	220-8431-2TB	Water	03/17/2009		X				
AGW-8(10-11)	220-8431-3	Water	03/17/2009		X				
AGW-8(16-17)	220-8431-4	Water	03/17/2009		X				
AGW-8(34-35)	220-8431-5	Water	03/17/2009		X				
AGW-8(54-55)	220-8431-6	Water	03/17/2009		X				
AGW-8(7-9)	220-8431-7	Soil	03/17/2009	MS/MSD	X				
AGW-1(12-13)	220-8431-8	Water	03/17/2009		X				
AGW-1(34-35)	220-8431-9	Water	03/17/2009	MS/MSD	X				
AGW-1(54-55)	220-8431-10	Water	03/17/2009		X				

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ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AGW-8(7-9)	Methylene Chloride	Detected sample results >RL and <BAL	“UB” at detected sample concentration

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
FB031709 TB031709 AGW-1(54-55) AGW-8(16-17) AGW-9(34-35)	CCV %D	Bromomethane	108%
		Carbon Tetrachloride	28.9%
AGW-8(10-11) AGW-8(54-55) AGW-1(12-13) AGW-1(34-35)	CCV %D	Chloroethane	35.3%
		1,1,2-Trichloro-1,2,2-trifluoroethane	39.6%
		Cyclohexane	22.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
AGW-1(34-35)	Dichlorodifluoromethane	>UL	>UL
	Bromomethane	>UL	>UL
	Trichlorofluoromethane	>UL	>UL
	Carbon Tetrachloride	>UL	>UL
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL	>UL
	Chloromethane	AC	>UL
	Ethylebenzene	AC	>UL
	Tetrachloroethene	AC	>UL
	1,1,1,-Trichloroethane	>UL	>UL
	Vinyl Chloride	AC	>UL
	Cyclohexane	>UL	>UL
	Methylcyclohexane	>UL	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
AGW-8(7-9)	Acetone
	Bromomethane
	Methyl Ethyl Ketone
	Chloromethane
	Methyl Acetate
	Vinyl Chloride

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

8. Laboratory Control Sample (LCS) Analysis/Matrix Spike Blank (MSB)

The LCS/MSB analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/MSB analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with the LCS/MSB analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
FB031709 TB031709 AGW-8(16-17) AGW-8(34-35) AGW-1(54-55)	Dichlorodifluoromethane	>UL
	Bromomethane	>UL
	Trichlorofluoromethane	>UL

Sample Locations	Compound	LCS Recovery
	Trichlorofluoromethane	>UL
AGW-8(10-11) AGW-8(54-55) AGW-1(12-13) AGW-1(34-35)	Dichlorodifluoromethane	>UL
	Trichlorofluoromethane	>UL
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL

The criteria used to evaluate the LCS recoveries are presented in the following table.
In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Note: Sample results were not qualified as rejected (R) due to the deviations listed above.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Field duplicate analysis was not performed on a sample location within this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

Sample ID	Compound
AGW-8(34-35) AGW-1(34-35) AGW-1(54-55)	Tentatively Identified Compounds, (TICs) detected

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X		X	
C. Trip blanks		X	X		
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)		X	X		
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier IV Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
220-8431-1EB	03/17/2009	SW-846	FB031709	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-2TB	03/17/2009	SW-846	TB031709	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-3	03/17/2009	SW-846	AGW-8(10-11)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-4	03/17/2009	SW-846	AGW-8(16-17)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-5	03/17/2009	SW-846	AGW-8(34-35)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-6	03/17/2009	SW-846	AGW-8(54-55)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-7	03/17/2009	SW-846	AGW-8(7-9)	Water	No	--	--	--	--	VOC- Blank contamination, RPD >UL
220-8431-8	03/17/2009	SW-846	AGW-1(12-13)	Water	No	--	--	--	--	VOC- CCV%D, LCS %Recovery
220-8431-9	03/17/2009	SW-846	AGW-1(34-35)	Soil	No	--	--	--	--	VOC- CCV%, MS/MSD %Recovery, LCS %Recovery
220-8431-10	03/17/2009	SW-846	AGW-1(54-55)	Soil	No	--	--	--	--	VOC- CCV%D, LCS %Recovery

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE:

DATE: May 12, 2009

PEER REVIEW: Dennis Capria

DATE: May 14, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

10141R Target Rock

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: FB031709

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: FB031709

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	93	54 - 137
Toluene-d8 (Surr)	90	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **FB031709**

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **TB031709**

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	1.7	J B	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **TB031709**

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	94	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **TB031709**

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (10-11)

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (10-11)

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78	53 - 125
4-Bromofluorobenzene	74	73 - 127
Dibromofluoromethane	74	54 - 137
Toluene-d8 (Surr)	85	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (10-11)**

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (16-17)

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (16-17)

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	53 - 125
4-Bromofluorobenzene	76	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	88	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (16-17)**

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (34-35)

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (34-35)

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 125
4-Bromofluorobenzene	75	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	88	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (34-35)**

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.05	6.1	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (54-55)

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.4	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (54-55)**

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	53 - 125
4-Bromofluorobenzene	98	73 - 127
Dibromofluoromethane	100	54 - 137
Toluene-d8 (Surr)	114	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (54-55)**

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (7-9)

Lab Sample ID: 220-8431-7
Client Matrix: Solid

% Moisture: 3.4

Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402

Analysis Batch: 220-25655

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		21	U J	2.3	21
Dichlorodifluoromethane		5.2	U	0.36	5.2
Benzene		5.2	U	0.59	5.2
Bromodichloromethane		5.2	U	0.31	5.2
Bromoform		5.2	U	0.63	5.2
Bromomethane		5.2	U J	2.2	5.2
Methyl Ethyl Ketone		10	U J	1.6	10
Trichlorofluoromethane		5.2	U	0.16	5.2
Carbon disulfide		5.2	U	0.42	5.2
Carbon tetrachloride		5.2	U	0.98	5.2
Chlorobenzene		5.2	U	0.61	5.2
1,1,2-Trichloro-1,2,2-trifluoroethane		5.2	U	0.82	5.2
Chloroethane		5.2	U	1.0	5.2
Chloroform		5.2	U	0.35	5.2
Chloromethane		5.2	U J	0.81	5.2
Dibromochloromethane		5.2	U	0.36	5.2
1,1-Dichloroethane		5.2	U	0.31	5.2
1,2-Dichloroethane		5.2	U	0.60	5.2
1,1-Dichloroethene		5.2	U	0.60	5.2
1,2-Dichloropropane		5.2	U	0.69	5.2
cis-1,3-Dichloropropene		5.2	U	0.58	5.2
Methyl acetate		5.2	U J	0.46	5.2
trans-1,3-Dichloropropene		5.2	U	0.28	5.2
Ethylbenzene		5.2	U	0.72	5.2
2-Hexanone		10	U	1.2	10
Methylene Chloride		21 ~~6.9~~	~~J B~~ U B	1.1	21
methyl isobutyl ketone		5.2	U	0.57	5.2
Styrene		5.2	U	0.16	5.2
1,1,2,2-Tetrachloroethane		5.2	U	0.54	5.2
Tetrachloroethene		5.2	U	0.84	5.2
Toluene		5.2	U	0.077	5.2
1,1,1-Trichloroethane		5.2	U	0.55	5.2
1,1,2-Trichloroethane		5.2	U	0.38	5.2
Trichloroethene		5.2	U	0.84	5.2
Vinyl chloride		5.2	U J	0.24	5.2
Xylenes, Total		5.2	U	0.50	5.2
cis-1,2-Dichloroethene		5.2	U	0.38	5.2
Cyclohexane		5.2	U	0.71	5.2
trans-1,2-Dichloroethene		5.2	U	0.40	5.2
Isopropylbenzene		5.2	U	0.20	5.2
1,3-Dichlorobenzene		5.2	U	0.22	5.2
1,4-Dichlorobenzene		5.2	U	0.69	5.2
1,2-Dichlorobenzene		5.2	U	0.25	5.2
1,2-Dibromo-3-Chloropropane		10	U	4.7	10

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (7-9)

Lab Sample ID: 220-8431-7
Client Matrix: Solid

% Moisture: 3.4

Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402

Analysis Batch: 220-25655

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.2	U	0.78	5.2
1,2-Dibromoethane		5.2	U	0.79	5.2
Methyl tert-butyl ether		5.2	U	0.22	5.2
Methylcyclohexane		5.2	U	0.34	5.2

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	49 - 134
4-Bromofluorobenzene	109	36 - 133
Dibromofluoromethane	80	60 - 130
Toluene-d8 (Surr)	100	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (7-9)**

Lab Sample ID: 220-8431-7
Client Matrix: Solid

% Moisture: 3.4

Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402

Analysis Batch: 220-25655

Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (12-13)**

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.3	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	1.6	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-1 (12-13)

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 125
4-Bromofluorobenzene	91	73 - 127
Dibromofluoromethane	93	54 - 137
Toluene-d8 (Surr)	105	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (12-13)**

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (34-35)**

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.6	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	0.78	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-1 (34-35)

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	53 - 125
4-Bromofluorobenzene	93	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	110	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (34-35)**

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown Alkene	0.98	5.4	J
	Unknown	1.07	0.65	J
106-98-9	1-Butene	1.14	18	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (54-55)**

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-1 (54-55)

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 125
4-Bromofluorobenzene	77	73 - 127
Dibromofluoromethane	94	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-1 (54-55)

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.41	5.0	J

ARCADIS

Laboratory Task Order No./P.O. No. Target Rock

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

8431

Project Number/Name NY001490.0001.00002

Project Location East Farmingdale, NY

Laboratory Test America - Shelton

Project Manager Mike Wolfert

Sampler(s)/Affiliation Prezorki

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 4 oz Unpres TCL VOC	2 oz Jar TCL VOC (HCL)	2 oz Jar TCL VOC (ICE)				Remarks	Total
FB031709 (1)	L	3-17-09 9:00 AM		1							1
TB031709 (2)		3-17-09		2							2
AGW-8 (10-11) (3)		9:11 AM		2							2
AGW-8 (16-17) (4)		9:40 AM		2							2
AGW-8 (34-35) (5)		10:28 AM		2							2
AGW-8 (54-55) (6)		11:05 AM		2							2
AGW-8 (7-9) (7)	S	8:50 AM			3						3
AGW-1 (12-13) (8)	L	13:18		2							2
AGW-1 (34-35) (9)		13:48		6							6
AGW-1 (54-55) (10)		15:03		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 25 24

Relinquished by:	Organization: Arcadis	Date 3/17/09	Time 1650	Seal Intact?	Yes No N/A
Received by:	Organization: Test America CT	Date 3/17/09	Time 1650		
Relinquished by:	Organization: Test America CT	Date 3/17/09	Time 1900	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		

Special Instructions/Remarks:

passed screen

* Please use this sample as a QA/QC MS/MSD sample only

1,9C

Report to Mike Wolfert & Chris Keen

1 Field Blank void due to Breakage

Delivery Method: ☐ In Person ☐ Common Carrier (SPECIFY) ☑ Lab Courier ☐ Other (SPECIFY)

AG 05 12/01

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation – Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG# 220-8451

Analyses Performed By:
Test America Laboratories
Shelton, Connecticut

Report: # 10142R
Review Level: Tier III
Project: NY0001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #220-8451 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TB031809	220-8451-1TB	Water	03/18/2009		X				
REP031809	220-8451-2	Water	03/18/2009	AGW-7(13-14)	X				
AGW-7(13-14)	220-8451-3	Water	03/18/2009		X				
AGW-7(34-35)	220-8451-4	Water	03/18/2009		X				
AGW-7(54-55)	220-8451-5	Water	03/18/2009		X				
AGW-2(10-11)	220-8451-6	Water	03/18/2009		X				
AGW-2(34-35)	220-8451-7	Water	03/18/2009		X				
AGW-2(44-45)	220-8451-8	Water	03/18/2009		X				
AGW-11(10-11)	220-8451-9	Water	03/18/2009		X				
AGW-11(34-35)	220-8451-10	Water	03/18/2009		X				

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ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
TB031809 REP031809 AGW-7(13-14) AGW-7(34-35) AGW-7(54-55) AGW-2(10-11) AGW-2(34-35) AGW-2(44-45) AGW-11(10-11)	CCV %D	Methyl acetate	26.2%
		1,1,2-Trichloro-1,2,2-trifluoroethane	39.6%
		Cyclohexane	22.8%
		Trichlorofluoromethane	35.3%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketenes, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD was not performed on a sample location associated with this SDG.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.
Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
TB031809 REP031809 AGW-7(13-14) AGW-7(34-35) AGW-7(54-55) AGW-2(10-11) AGW-2(34-35) AGW-2(44-45) AGW-11(10-11)	Acetone	>UL
	Dichlorodifluoromethane	>UL
	Trichlorofluoromethane	>UL
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL
AGW-11(34-35)	Acetone	>UL
	Dichlorodifluoromethane	>UL

The criteria used to evaluate the LCS recoveries are presented in the following table.
In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Note: Sample results were not qualified as rejected (R) due to the deviations listed above.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
AGW-7 (13-14)/REP031809	Acetone	1.3 J	ND(10)	AC

AC Acceptable
NC Not compliant
ND Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

Sample ID	Compound
AGW-7(34-35) AGW-2(34-35) AGW-2(44-45) AGW-11(10-11) AGW-11(34-35)	Tentatively Identified Compounds, (TICs) detected

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier IV Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs; SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
220-8451-1TB	03/18/2009	SW-846	TB031809	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-2	03/18/2009	SW-846	REP031809	Water	No	--	--	--	--	VOC-LCS %Recovery, CCV%D
220-8451-3	03/18/2009	SW-846	AGW-7(13-14)	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-4	03/18/2009	SW-846	AGW-7(34-35)	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-5	03/18/2009	SW-846	AGW-7(54-55)	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-6	03/18/2009	SW-846	AGW-2(10-11)	Water	No	--	--	--	--	VOC – LCS %Recovery CCV%D
220-8451-7	03/18/2009	SW-846	AGW-2(34-35)	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-8	03/18/2009	SW-846	AGW-2(44-45)	Water	No	--	--	--	--	VOC- LCS %Recovery, CCV%D
220-8451-9	03/18/2009	SW-846	AGW-11(10-11)	Water	No	--	--	--	--	VOC – LCS %Recovery, CCV%D
220-8451-10	03/18/2009	SW-846	AGW-11(34-35)	Water	No	--	--	--	--	VOC – LCS %Recovery

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Mary Ann Doyle

SIGNATURE:

DATE: May 21, 2009

PEER REVIEW: Dennis Capria

DATE: May 14, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

10142R

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: TB031809

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **TB031809**

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	65 - 136
4-Bromofluorobenzene	74	51 - 142
Dibromofluoromethane	79	68 - 132
Toluene-d8 (Surr)	89	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: TB031809

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	65 - 136
4-Bromofluorobenzene	73	51 - 142
Dibromofluoromethane	78	68 - 132
Toluene-d8 (Surr)	86	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (13-14)

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.3	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (13-14)

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85	65 - 136
4-Bromofluorobenzene	74	51 - 142
Dibromofluoromethane	79	68 - 132
Toluene-d8 (Surr)	87	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (13-14)

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (34-35)

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	3.6	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (34-35)

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	97	68 - 132
Toluene-d8 (Surr)	106	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (34-35)**

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 3

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
115-07-1	Propene	0.98	24	J N
	Unknown Alkene	1.14	27	J
	Unknown Cycloalkane	1.52	29	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.4	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.26	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	65 - 136
4-Bromofluorobenzene	81	51 - 142
Dibromofluoromethane	86	68 - 132
Toluene-d8 (Surr)	95	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (10-11)

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.1	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	2.4	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	0.70	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (10-11)

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	65 - 136
4-Bromofluorobenzene	78	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	93	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (10-11)**

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (34-35)

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.3	J	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (34-35)

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	65 - 136
4-Bromofluorobenzene	75	51 - 142
Dibromofluoromethane	82	68 - 132
Toluene-d8 (Surr)	89	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (34-35)**

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 3

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown Alkene	0.98	14	J
	Unknown Alkene	1.14	16	J
	Unknown Alkene	1.53	29	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (44-45)

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6	J	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	1.7	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (44-45)

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	65 - 136
4-Bromofluorobenzene	76	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	91	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (44-45)**

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
354-23-4	Ethane, 1,2-dichloro-1,1,2-trifluoro-	1.87	17	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (10-11)

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	29	J	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	3.4	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	2.6	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (10-11)

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	65 - 136
4-Bromofluorobenzene	80	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	93	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (10-11)

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 2**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
79-38-9	Ethene, chlorotrifluoro-	1.00	18	J N
354-23-4	Ethane, 1,2-dichloro-1,1,2-trifluoro-	1.87	14	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (34-35)

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (34-35)

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	102	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (34-35)

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds

Number TIC's Found: 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.06	10	J

2177

ARCADIS

Laboratory Task Order No./P.O. No. Target Rock **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

8451

Project Number/Name NY001496.0001.00002

Project Location East Farmingdale, NY

Laboratory Test America - Shelton

Project Manager Mike Wolfert

Sampler(s)/Affiliation Prezorski

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml vial TCL VOC (HCl)						Remarks	Total
1	TB031809	L	3/18/09		2							2
2	Rep031809				2							2
3	AGW-7 (13-14')		8:40 AM		2							2
4	AGW-7 (34-35')		9:27 AM		2							2
5	AGW-7 (54-55')		10:02 AM		2							2
6	AGW-2 (10-11')		10:57 AM		2							2
7	AGW-2 (34-35')		11:27 AM		2							2
8	AGW-2 (44-45')		1357		2							2
9	AGW-11 (10-11')		1508		2							2
10	AGW-11 (34-35')		1535		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 20

Relinquished by: Pat Prezorski	Organization: Arcadis	Date 3/18/09	Time 1900	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	Yes No N/A
Received by: [signature]	Organization: TA Ct	Date 3/19/09	Time 945		

Special Instructions/Remarks: Report to Mike Wolfert & Chris Keen

passed rad screen

0.6°C med. Clr.

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other SPECIFY

04/01/2009

AG 05-12/01

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analysis

SDG#220-8458

Analyses Performed By:
TestAmerica Laboratories
Shelton, Connecticut

Report: #10143R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #220-8458 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TB031909	220-8458-1TB	WATER	3/19/09		X				
AGW-3 (10-11')	220-8458-2	WATER	3/19/09		X				
AGW-3 (34-35')	220-8458-3	WATER	3/19/09		X				
AGW-3 (54-55')	220-8458-4	WATER	3/19/09		X				
AGW-4 (10-11')	220-8458-5	WATER	3/19/09		X				
AGW-4 (34-35')	220-8458-6	WATER	3/19/09		X				
AGW-4 (54-55')	220-8458-7	WATER	3/19/09		X				
AGW-5 (8-9')	220-8458-8	WATER	3/19/09		X				
AGW-5 (34-35')	220-8458-9	WATER	3/19/09		X				
AGW-5 (54-55')	220-8458-10	WATER	3/19/09		X				
Rep031909	220-8458-11	WATER	3/19/09	AGW-5 (8-9')	X				
AGW-11 (51-55')	220-8458-12	WATER	3/19/09		X				
AGW-6 (10-11')	220-8458-13	WATER	3/19/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and January 2005.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations	ICV %RSD	Chloroethane	17.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
AGW-6 (10-11')	Dichlorodifluoromethane	>UL	>UL
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL	>UL
	trans-1,2-Dichloropropene	>UL	AC
	Ethylbenzene	>UL	AC
	Toluene	>UL	AC
	Cyclohexane	>UL	AC
	Isopropylbenzene	>UL	>UL
	Methylcyclohexane	>UL	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
All sample locations	Acetone	+151%
	Dichlorodifluoromethane	+202%

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
AGW-5 (8-9')/Rep031909	All compounds	ND	ND	AC

AC Acceptable
ND Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.
Tentatively identified compounds (TICs) were not identified in any of the sample locations.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X	X		
Continuing calibration RRFs		X		X	
Continuing calibration %Ds					X
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference %R Percent recovery
RPD Relative percent difference %D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
220-8458	3/19/09	SW-846	TB031909	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-3 (10-11')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-3 (34-35')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-3 (54-55')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-4 (10-11')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-4 (34-35')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-4 (54-55')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-5 (8-9')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-5 (34-35')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-5 (54-55')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	Rep031909	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-11 (51-55')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R
220-8458	3/19/09	SW-846	AGW-6 (10-11')	Water	No	--	--	--	--	VOC-ICAL %RSD, LCS %R, MS/MSD %R

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 8, 2009

PEER REVIEW: Dennis Capria

DATE: May 13, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

ARCADIS

Laboratory Task Order No./P.O. No. Target Rock

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NY001490.0001.00002

Project Location East Farmingdale, NY

Laboratory Test America - Shelton

Project Manager Mike Wolfart

Sampler(s)/Affiliation Prezorski

8458

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Hand Vial TCL VOC (HLL)						Remarks	Total
TB031909 (1)	L	3/19/09		2							2
AGW-3 (10-11') (2)		8:38 AM		2							2
AGW-3 (34-35') (3)		8:57 AM		2							2
AGW-3 (54-55') (4)		9:36 AM		2							2
AGW-4 (10-11') (5)		10:42 AM		2							2
AGW-4 (34-35') (6)		11:08 AM		2							2
AGW-4 (54-55') (7)		11:45		2							2
AGW-5 (8-9') (8)		1310		2							2
AGW-5 (34-35') (9)		1334		2							2
AGW-5 (54-55') (10)		1420		2							2
Rep031909 (11)				2							2
AGW-11 (51-55') (12)		1634		2							2
AGW-6 (10-11') (13)		1520		*6							6

Total No. of Bottles/Containers: 30

Sample Matrix: L = Liquid; S = Solid; A = Air

				Seal Intact?
Relinquished by: [signature]	Organization: Arcadis	Date 3/19/09	Time 1930	Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by: [signature]	Organization: TA CT	Date 3/20/09	Time 0934	Yes No N/A

Special Instructions/Remarks: Report to Mike Wolfart & Chris Keen

* Please use this sample as a QA/QC MS/MSD Sample

passed rad screen 1.8oc

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other SPECIFY

AG 05-12/01

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Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: TB031909

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: TB031909

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	101	68 - 132
Toluene-d8 (Surr)	101	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **TB031909**

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (10-11')**

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (10-11')

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	105	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (10-11')**

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (34-35')**

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.3	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (34-35')**

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (34-35')**

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (54-55')**

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	0.71	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (54-55')

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	105	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (54-55')**

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (10-11')

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0138
Date Prepared: 03/28/2009 0138

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (10-11')

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0138
Date Prepared: 03/28/2009 0138

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (10-11')

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0138
Date Prepared: 03/28/2009 0138

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (34-35')**

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (34-35')**

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.27	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (34-35')**

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (54-55')**

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (54-55')

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (54-55')**

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (8-9')**

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (8-9')**

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (8-9')**

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (34-35')**

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (34-35')

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (34-35')**

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (54-55')

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.7	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (54-55')**

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-5 (54-55')**

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **Rep031909**

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **Rep031909**

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **Rep031909**

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-11 (51-55')

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-11 (51-55')**

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.17	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-11 (51-55')**

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-6 (10-11')

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0510
Date Prepared: 03/28/2009 0510

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2898.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-6 (10-11')**

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0510
Date Prepared: 03/28/2009 0510

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2898.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-6 (10-11')**

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0510
Date Prepared: 03/28/2009 0510

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2898.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#220-8500

Analyses Performed By:
TestAmerica Laboratories
Shelton, Connecticut

Report: #10144R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #220-8500 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TB032309	220-8500-1TB	WATER	3/23/09		X				
FB032309	220-8500-2FB	WATER	3/23/09		X				
Rep032309	220-8500-3	WATER	3/23/09	TRMW-4	X				
TRMW-5	220-8500-4	WATER	3/23/09		X				
TRMW-1	220-8500-5	WATER	3/23/09		X				
TRMW-2	220-8500-6	WATER	3/23/09		X				
TRMW-4	220-8500-7	WATER	3/23/09		X				
TRMW-3	220-8500-8	WATER	3/23/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and January 2005.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2 s.u.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
Rep032309 TRMW-4	Chloroform	Detected sample results <RL and <BAL	“UB” at the RL

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations	ICV %RSD	Chloroethane	17.8%
TB032309 FB032309 Rep032309 TRMW-1 TRMW-2	CCV %D	Dichlorodifluoromethane	+22.1%
		Chloroethane	+23.8%
TRMW-5 TRMW-4 TRMW-3	CCV %D	Methylene chloride	+20.3%
		Methyl acetate	+20.9%
		Tetrachloroethene	-22.7%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
TRMW-5	Dichlorodifluoromethane	AC	>UL
	Trichlorofluoromethane	>UL	>UL
	1,1,2-Trichloro-1,2,2-trifluoroethane	>UL	>UL
	Chloroethane	>UL	>UL
	Chloromethane	>UL	>UL
	Methyl acetate	>UL	AC
	trans-1,3-Dichloropropene	>UL	AC
	Ethylbenzene	>UL	AC
	Toluene	>UL	AC
	Vinyl chloride	>UL	>UL
	Cyclohexane	>UL	AC
	Isopropylbenzene	>UL	AC
	Methylcyclohexane	>UL	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J

Control Limit	Sample Result	Qualification
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
TB032309 FB032309 Rep032309 TRMW-1 TRMW-2	Acetone	178%
	Dichlorodifluoromethane	219%
TRMW-5 TRMW-4 TRMW-3	Acetone	236%
	Dichlorodifluoromethane	225%
	Methyl ethyl ketone	175%

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TRMW-4/Rep032309	Chloroform	1.8	1.8	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

Tentatively identified compounds (TICs) were not identified in any of the sample locations.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X	X		
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X	X		
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Percent relative difference
RPD Relative percent difference
%R Percent recovery
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
220-8500	3/23/09	SW-846	TB032309	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	FB032309	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	Rep032309	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	TRMW-5	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, MS/MSD, LCS
220-8500	3/23/09	SW-846	TRMW-1	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	TRMW-2	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	TRMW-4	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS
220-8500	3/23/09	SW-846	TRMW-3	Water	No	--	--	--	--	VOC-Blk Contamination, ICAL %RSD, CCAL %D, LCS

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 11, 2209

PEER REVIEW: Dennis Capria

DATE: May 13, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

ARCADIS

Laboratory Task Order No./P.O. No. Target Rock

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NY001490.0001.00002

Project Location East Farmingdale, NY

Laboratory Test America - Shelton

Project Manager Mike Wolfert

Sampler(s)/Affiliation Prezorski, Deas

8500

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml Vial TCL VOC (HCL)						Remarks	Total
TB032309 (1)	L	3/23/09		2						Standard TAT	2
FB032309 (2)		1645		2							2
Rep032309 (3)				2							2
TRMW-5 (4)		3/23/09; 1242		*6							6
TRMW-1 (5)		3/23/09; 1401		2							2
TRMW-2 (6)		1555		2							2
TRMW-4 (7)		1705		2							2
TRMW-3 (8)		1758		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 20

Relinquished by: Cat Prezorski	Organization: Arcadis	Date 3/23/09	Time 1920	Seal Intact?	Yes	No N/A
Received by:	Organization:	Date / /	Time			
Relinquished by:	Organization:	Date / /	Time	Seal Intact?		
Received by: K Blackburn	Organization: TA Ct	Date 3/24/09	Time 950		Yes	No N/A

Special Instructions/Remarks:

Report to Mike Wolfert & Chris Keon

2.4°C

passed rad screen

* Please use this sample as a QA/QC MS/MSD Sample.

Delivery Method: ☒ In Person ☒ Common Carrier FEDEX (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TB032309**

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TB032309**

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TB032309**

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: FB032309

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	2.9	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	1.3	J B	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	3.4	J	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: FB032309

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **FB032309**

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	~~5.0~~ 4.8	J UB	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-5**

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-5

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-5**

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-1

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-1**

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-1**

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-2**

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-2**

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	110	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-2**

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-4**

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0 ~~1.8~~	+ UB	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-4

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-4**

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-3

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U J	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-3**

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-3**

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

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Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#0903271R1

Analyses Performed By:
Air Toxics, Ltd.
Folsom, California

Report: #10145R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #0903271R1 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
SS-7	0903271R1-01A	AIR	3/9/09		X				
SS-8	0903271R1-02A	AIR	3/9/09		X				
SS-6	0903271R1-03A	AIR	3/9/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15) and NYSDEC Modifications to R9 TO-15 QA/QC Criteria February 2008.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Method TO-15	Air	30 days storage from collection to analysis	Ambient temperature

All samples were analyzed within the specified holding time criteria.

All other canister return pressure/vacuum criteria were met.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

Sample location(s) SS-7, SS-8 and SS-6 were compliant with the Method TO-15 requirement of analysis within a 24-hour tune clock but not compliant with the NYSDEC requirement of analysis within a 12-hour tune clock. The data was not qualified.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations	ICV %RSD	Methyl acetate	37.07%
		1,2-Dibromo-3-chloropropane	38.31%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 30%	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >30% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >30% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS recoveries must exhibit an RPD within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

All compounds associated with laboratory duplicate RPD were within the control limit. Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SS-7/SS-7 Lab Duplicate	Freon 12	0.72	0.75	AC
	Freon 11	1.1	1.1	AC
	Acetone	170	140	19%
	Carbon Disulfide	4.5	4.3	AC
	2-Butanone	4.3	4.9	13%
	1,1,1-Trichloroehtane	33	32	3%
	Benzene	1.1	1.0	AC
	Toluene	3.4	3.3	3%
	Tetrachloroethene	20	20	0%
	Dibromochlorormethane	0.64	0.68	6%
	Ethyl benzene	7.4	7.7	4%
	m,p-Xylene	33	34	3%
	o-Xylene	11	11	0%
	Bromoform	0.71	0.64	10%

AC Acceptable

The calculated RPDs between the parent sample and laboraotry duplicate were acceptable.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and

analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

A field duplicate was not collected with any sample location associated with this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SS-8	Acetone	480 E	--	480 EJ
SS-6	Acetone	350 E	--	350 EJ

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Canister return pressure/vacuum (5"Hg ± 1)		X		X	
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks		X		X	
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X	X		
Continuing calibration RRFs	X				X
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation		X		X	
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
0903271R1	3/9/09	TO-15	SS-7	AIR	No	--	--	--	--	VOC-ICAL %RSD
0903271R1	3/9/09	TO-15	SS-8	AIR	No	--	--	--	--	VOC-ICAL %RSD, Exceedence
0903271R1	3/9/09	TO-15	SS-6	AIR	No	--	--	--	--	VOC-ICAL %RSD, Exceedence

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 13, 2009

PEER REVIEW: Dennis Capria

DATE: May 13, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Mike Weifert
Collected by: (Print and Sign) Pat Pazank: Pat Pazank
Company: Arcadis Email: mike.weifert@arcadis-us.com
Address: 3 Huntington Quad Suite 1S1C City: Melville State: NY Zip: 11747
Phone: 631-249-7600 Fax: 631-249-7610

Project Info:
P.O. #:
Project #: NY001490.0001.00003
Project Name: Target Rock

Turn Around Time:
☐ Normal
☒ Rush
1 week TAT
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection (start / end)	Analyses Requested	Canister Pressure/Vacuum: Initial	Final	Receipt (psi)	Final (psi)
01A	SS-7	1589	3/9/09	1055 / 1171	TO-15	7-30	-7		
02A	SS-8	4064	3/9/09	1318 / 1351	TO-15	7-30	-7		
03A	SS-6	25298	3/9/09	1507 / 1625	TO-15	7-30	-7		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Pat Pazank	3/10/09 1645	Monica Breggen	3/11/09 0900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: 1 week TAT

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		MA	Good	Yes / No / None	0903271

Form 233 rev.1

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718r1**	**Date of Collection:**	**3/9/09 11:17:00 AM**
Dil. Factor:	**5.60**	**Date of Analysis:**	**3/18/09 01:01 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.56	0.72	2.8	3.5
Chloromethane	0.56	Not Detected	1.2	Not Detected
Vinyl Chloride	0.56	Not Detected	1.4	Not Detected
Bromomethane	0.56	Not Detected	2.2	Not Detected
Chloroethane	0.56	Not Detected	1.5	Not Detected
Freon 11	0.56	1.1	3.1	6.0
Freon 113	0.56	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Acetone	2.8	170	6.6	390
Carbon Disulfide	2.8	4.5	8.7	14
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
Methyl tert-butyl ether	0.56	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.56	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.56	4.3	1.6	12
cis-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Chloroform	0.56	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.56	33	3.0	180
Cyclohexane	0.56	Not Detected	1.9	Not Detected
Carbon Tetrachloride	0.56	Not Detected	3.5	Not Detected
Benzene	0.56	1.1	1.8	3.6
1,2-Dichloroethane	0.56	Not Detected	2.3	Not Detected
Trichloroethene	0.56	Not Detected	3.0	Not Detected
1,2-Dichloropropane	0.56	Not Detected	2.6	Not Detected
Bromodichloromethane	0.56	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
4-Methyl-2-pentanone	0.56	Not Detected	2.3	Not Detected
Toluene	0.56	3.4	2.1	13
trans-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.56	Not Detected	3.0	Not Detected
Tetrachloroethene	0.56	20	3.8	140
2-Hexanone	2.8	Not Detected	11	Not Detected
Dibromochloromethane	0.56	0.64	4.8	5.4
1,2-Dibromoethane (EDB)	0.56	Not Detected	4.3	Not Detected
Chlorobenzene	0.56	Not Detected	2.6	Not Detected
Ethyl Benzene	0.56	7.4	2.4	32
m,p-Xylene	0.56	33	2.4	140
o-Xylene	0.56	11	2.4	47
Styrene	0.56	Not Detected	2.4	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718r1**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 01:01 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.56	0.71	5.8	7.3
Cumene	0.56	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.56	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8 J	Not Detected	8.5	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8 J	Not Detected	27	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719r1**	**Date of Collection:**	**3/9/09 1:51:00 PM**
Dil. Factor:	**5.27**	**Date of Analysis:**	**3/18/09 01:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.53	0.61	2.6	3.0
Chloromethane	0.53	Not Detected	1.1	Not Detected
Vinyl Chloride	0.53	Not Detected	1.3	Not Detected
Bromomethane	0.53	Not Detected	2.0	Not Detected
Chloroethane	0.53	Not Detected	1.4	Not Detected
Freon 11	0.53	0.59	3.0	3.3
Freon 113	0.53	Not Detected	4.0	Not Detected
1,1-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Acetone	2.6	480 E J	6.2	1100 E
Carbon Disulfide	2.6	Not Detected	8.2	Not Detected
Methylene Chloride	1.0	Not Detected	3.7	Not Detected
Methyl tert-butyl ether	0.53	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
1,1-Dichloroethane	0.53	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.53	2.8	1.6	8.4
cis-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Chloroform	0.53	Not Detected	2.6	Not Detected
1,1,1-Trichloroethane	0.53	0.76	2.9	4.1
Cyclohexane	0.53	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.53	Not Detected	3.3	Not Detected
Benzene	0.53	0.62	1.7	2.0
1,2-Dichloroethane	0.53	Not Detected	2.1	Not Detected
Trichloroethene	0.53	1.0	2.8	5.5
1,2-Dichloropropane	0.53	Not Detected	2.4	Not Detected
Bromodichloromethane	0.53	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.53	Not Detected	2.2	Not Detected
Toluene	0.53	3.2	2.0	12
trans-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
1,1,2-Trichloroethane	0.53	Not Detected	2.9	Not Detected
Tetrachloroethene	0.53	22	3.6	150
2-Hexanone	2.6	Not Detected	11	Not Detected
Dibromochloromethane	0.53	Not Detected	4.5	Not Detected
1,2-Dibromoethane (EDB)	0.53	Not Detected	4.0	Not Detected
Chlorobenzene	0.53	Not Detected	2.4	Not Detected
Ethyl Benzene	0.53	0.93	2.3	4.0
m,p-Xylene	0.53	2.5	2.3	11
o-Xylene	0.53	1.0	2.3	4.4
Styrene	0.53	Not Detected	2.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719r1**	**Date of Collection: 3/9/09 1:51:00 PM**	
Dil. Factor:	**5.27**	**Date of Analysis: 3/18/09 01:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.53	Not Detected	5.4	Not Detected
Cumene	0.53	Not Detected	2.6	Not Detected
1,1,2,2-Tetrachloroethane	0.53	Not Detected	3.6	Not Detected
1,3-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,4-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	20	Not Detected
Methyl Acetate	2.6 J	Not Detected	8.0	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6 J	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z031720r1	**Date of Collection:**	3/9/09 4:25:00 PM
Dil. Factor:	5.17	**Date of Analysis:**	3/18/09 02:17 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.52	0.58	2.6	2.9
Chloromethane	0.52	Not Detected	1.1	Not Detected
Vinyl Chloride	0.52	Not Detected	1.3	Not Detected
Bromomethane	0.52	Not Detected	2.0	Not Detected
Chloroethane	0.52	Not Detected	1.4	Not Detected
Freon 11	0.52	0.70	2.9	4.0
Freon 113	0.52	12	4.0	91
1,1-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Acetone	2.6	350 E J	6.1	820 E J
Carbon Disulfide	2.6	3.5	8.0	11
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	0.52	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.52	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.52	5.6	1.5	17
cis-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Chloroform	0.52	Not Detected	2.5	Not Detected
1,1,1-Trichloroethane	0.52	1.9	2.8	10
Cyclohexane	0.52	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.52	Not Detected	3.2	Not Detected
Benzene	0.52	1.0	1.6	3.2
1,2-Dichloroethane	0.52	Not Detected	2.1	Not Detected
Trichloroethene	0.52	Not Detected	2.8	Not Detected
1,2-Dichloropropane	0.52	Not Detected	2.4	Not Detected
Bromodichloromethane	0.52	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.52	Not Detected	2.1	Not Detected
Toluene	0.52	1.4	1.9	5.1
trans-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.52	Not Detected	2.8	Not Detected
Tetrachloroethene	0.52	18	3.5	120
2-Hexanone	2.6	Not Detected	10	Not Detected
Dibromochloromethane	0.52	Not Detected	4.4	Not Detected
1,2-Dibromoethane (EDB)	0.52	Not Detected	4.0	Not Detected
Chlorobenzene	0.52	Not Detected	2.4	Not Detected
Ethyl Benzene	0.52	Not Detected	2.2	Not Detected
m,p-Xylene	0.52	1.6	2.2	6.8
o-Xylene	0.52	0.57	2.2	2.5
Styrene	0.52	Not Detected	2.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031720r1**	**Date of Collection: 3/9/09 4:25:00 PM**	
Dil. Factor:	**5.17**	**Date of Analysis: 3/18/09 02:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.52	Not Detected	5.3	Not Detected
Cumene	0.52	2.1	2.5	10
1,1,2,2-Tetrachloroethane	0.52	Not Detected	3.5	Not Detected
1,3-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,4-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	19	Not Detected
Methyl Acetate	2.6 J	Not Detected	7.8	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6 J	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#0903307

Analyses Performed By:
Air Toxics, Ltd.
Folsom, California

Report: #10146R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #0903307 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
SV-4 (6.5-7)	0903307-01A	AIR	3/11/09		X				
SV-6 (6.5-7)	0903307-02A	AIR	3/11/09		X				
SV-8 (6.5-7)	0903307-03A	AIR	3/11/09		X				
SV-3 (6.5-7)	0903307-04A	AIR	3/11/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15) and NYSDEC Modifications to R9 TO-15 QA/QC Criteria February 2008.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Method TO-15	Air	30 days storage from collection to analysis	Ambient temperature

All samples were analyzed within the specified holding time criteria.

The sample locations with canisters that exceeded return pressure criteria are presented in the following table.

Sample Locations	Return Pressure/Vacuum Reading ("of Hg)
SV-4 (6.5-7)	0.5
SV-6 (6.5-7)	3.0
SV-8 (6.5-7)	2.5

Sample results associated with sample locations analyzed by analytical method TO-15 were qualified, as specified in the table below. All other canister return pressure/vacuum criteria were met.

Criteria	Qualification	
	Detected Analytes	Nondetect Analytes
Return pressure/vacuum < 4"Hg to 1"Hg	J	UJ
Analysis completed greater than two times holding time	J	R

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

Sample location(s) SV-4 (6.5-7), SV-6 (6.5-7), SV-8 (6.5-7) and SV-3 (6.5-7) were compliant with the Method TO-15 requirement of analysis within a 24-hour tune clock but not compliant with the NYSDEC requirement of analysis within a 12-hour tune clock. The data was not qualified.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Laboratory Control Sample (LCS) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

A laboratory duplicate was not performed on a sample location associated with this SDG.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

A field duplicate was not collected with any sample location associated with this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Canister return pressure/vacuum (5"Hg ± 1)		X	X		
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks		X		X	
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation		X		X	
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
0903307	3/11/09	TO-15	SV-4 (6.5-7)	AIR	No	--	--	--	--	VOC-Low final pressure
0903307	3/11/09	TO-15	SV-6 (6.5-7)	AIR	No	--	--	--	--	VOC-Low final pressure
0903307	3/11/09	TO-15	SV-8 (6.5-7)	AIR	No	--	--	--	--	VOC-Low final pressure
0903307	3/11/09	TO-15	SV-3 (6.5-7)	AIR	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 13, 2009

PEER REVIEW: Dennis Capria

DATE: May 13, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and International laws regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Mike Wolfert
Collected by: (Print and Sign) Pat Parzanki Pat Parzanki
Company: Arcadis Email: mike.wolfert@arcadis-us.com
Address: 2 Huntington Quad Suite 1S10 Melville NY City: Melville State: NY Zip: 11747
Phone: 631-249-7600 Fax: 631-249-7610

Project Info:
P.O. #:
Project #: M00149O.0001.00002
Project Name: Target Rock

Turn Around Time:
☑ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection (Start / End)	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psig)
01A	SV-4 (6.5-7)	33584	3/11/09	0854 AM / 0937 AM	TO-15	-30	-5		
02A	SV-6 (6.5-7)	34269	3/11/09	1127 / 1157	TO-15	-30	-7		
03A	SV-8 (6.5-7)	34475	3/11/09	1332 / 1409	TO-15	-30	-7		
04A	SV-3 (6.5-7)	34338	3/11/09	1510 / 1540	TO-15	-30	-7		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Pat Parzanki	3/11/09 1710	Monica Groppen ATL	3/12/09 915
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
			3/12/09
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		NA	Good	Yes / No / None	090307

Form 1289 rev.11

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 (6.5-7)

Lab ID#: 0903307-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032426**	**Date of Collection: 3/11/09 9:37:00 AM**	
Dil. Factor:	**1.36**	**Date of Analysis: 3/25/09 03:07 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.67 J	0.67	3.3
Chloromethane	0.14	Not Detected R	0.28	Not Detected
Vinyl Chloride	0.14	Not Detected R	0.35	Not Detected
Bromomethane	0.14	0.44 J	0.53	1.7
Chloroethane	0.14	Not Detected R	0.36	Not Detected
Freon 11	0.14	0.39 J	0.76	2.2
Freon 113	0.14	1.5 J	1.0	11
1,1-Dichloroethene	0.14	Not Detected R	0.54	Not Detected
Acetone	0.68	15 J	1.6	36
Carbon Disulfide	0.68	0.85 J	2.1	2.6
Methylene Chloride	0.27	Not Detected R	0.94	Not Detected
Methyl tert-butyl ether	0.14	Not Detected R	0.49	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected R	0.54	Not Detected
1,1-Dichloroethane	0.14	Not Detected R	0.55	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	3.5 J	0.40	10
cis-1,2-Dichloroethene	0.14	Not Detected R	0.54	Not Detected
Chloroform	0.14	Not Detected R	0.66	Not Detected
1,1,1-Trichloroethane	0.14	0.52 J	0.74	2.8
Cyclohexane	0.14	Not Detected R	0.47	Not Detected
Carbon Tetrachloride	0.14	Not Detected R	0.86	Not Detected
Benzene	0.14	1.6 J	0.43	5.1
1,2-Dichloroethane	0.14	Not Detected R	0.55	Not Detected
Trichloroethene	0.14	0.18 J	0.73	0.98
1,2-Dichloropropane	0.14	Not Detected R	0.63	Not Detected
Bromodichloromethane	0.14	Not Detected R	0.91	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected R	0.62	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected R	0.56	Not Detected
Toluene	0.14	0.99 J	0.51	3.7
trans-1,3-Dichloropropene	0.14	Not Detected R	0.62	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected R	0.74	Not Detected
Tetrachloroethene	0.14	2.5 J	0.92	17
2-Hexanone	0.68	Not Detected R	2.8	Not Detected
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.0	Not Detected
Chlorobenzene	0.14	Not Detected	0.63	Not Detected
Ethyl Benzene	0.14	Not Detected R	0.59	Not Detected
m,p-Xylene	0.14	0.16 J	0.59	0.69
o-Xylene	0.14	Not Detected R	0.59	Not Detected
Styrene	0.14	0.15 J	0.58	0.64

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 (6.5-7)

Lab ID#: 0903307-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032426**	**Date of Collection: 3/11/09 9:37:00 AM**	
Dil. Factor:	**1.36**	**Date of Analysis: 3/25/09 03:07 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.14	Not Detected R	1.4	Not Detected
Cumene	0.14	Not Detected	0.67	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.93	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,2,4-Trichlorobenzene	0.68	Not Detected	5.0	Not Detected
Methyl Acetate	0.68	Not Detected	2.1	Not Detected
Methylcyclohexane	0.68	Not Detected	2.7	Not Detected
1,2-Dibromo-3-chloropropane	0.68	Not Detected R	6.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	87	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 (6.5-7)

Lab ID#: 0903307-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t032427	**Date of Collection:**	3/11/09 11:57:00 AM
Dil. Factor:	2.48	**Date of Analysis:**	3/25/09 03:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.25	0.69 J	1.2	3.4
Chloromethane	0.25	Not Detected	0.51	Not Detected
Vinyl Chloride	0.25	Not Detected	0.63	Not Detected
Bromomethane	0.25	Not Detected	0.96	Not Detected
Chloroethane	0.25	Not Detected	0.65	Not Detected
Freon 11	0.25	0.44	1.4	2.4
Freon 113	0.25	23	1.9	180
1,1-Dichloroethene	0.25	0.47	0.98	1.9
Acetone	1.2	20	2.9	48
Carbon Disulfide	1.2	4.1	3.9	13
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.25	Not Detected	0.89	Not Detected
trans-1,2-Dichloroethene	0.25	Not Detected	0.98	Not Detected
1,1-Dichloroethane	0.25	0.49	1.0	2.0
2-Butanone (Methyl Ethyl Ketone)	0.25	3.6	0.73	11
cis-1,2-Dichloroethene	0.25	0.94	0.98	3.7
Chloroform	0.25	0.72	1.2	3.5
1,1,1-Trichloroethane	0.25	3.4	1.4	18
Cyclohexane	0.25	0.40	0.85	1.4
Carbon Tetrachloride	0.25	Not Detected	1.6	Not Detected
Benzene	0.25	3.3	0.79	10
1,2-Dichloroethane	0.25	Not Detected	1.0	Not Detected
Trichloroethene	0.25	4.8	1.3	26
1,2-Dichloropropane	0.25	Not Detected	1.1	Not Detected
Bromodichloromethane	0.25	Not Detected	1.7	Not Detected
cis-1,3-Dichloropropene	0.25	Not Detected	1.1	Not Detected
4-Methyl-2-pentanone	0.25	Not Detected	1.0	Not Detected
Toluene	0.25	2.0	0.93	7.6
trans-1,3-Dichloropropene	0.25	Not Detected	1.1	Not Detected
1,1,2-Trichloroethane	0.25	Not Detected	1.4	Not Detected
Tetrachloroethene	0.25	50	1.7	340
2-Hexanone	1.2	Not Detected	5.1	Not Detected
Dibromochloromethane	0.25	Not Detected	2.1	Not Detected
1,2-Dibromoethane (EDB)	0.25	Not Detected	1.9	Not Detected
Chlorobenzene	0.25	Not Detected	1.1	Not Detected
Ethyl Benzene	0.25	0.29	1.1	1.3
m,p-Xylene	0.25	0.62	1.1	2.7
o-Xylene	0.25	0.25	1.1	1.1
Styrene	0.25	0.27 J	1.0	1.1

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 (6.5-7)

Lab ID#: 0903307-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t032427	**Date of Collection:**	3/11/09 11:57:00 AM
Dil. Factor:	2.48	**Date of Analysis:**	3/25/09 03:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.25	Not Detected J	2.6	Not Detected
Cumene	0.25	Not Detected	1.2	Not Detected
1,1,2,2-Tetrachloroethane	0.25	Not Detected	1.7	Not Detected
1,3-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,4-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,2-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,2,4-Trichlorobenzene	1.2	Not Detected	9.2	Not Detected
Methyl Acetate	1.2	Not Detected	3.8	Not Detected
Methylcyclohexane	1.2	Not Detected	5.0	Not Detected
1,2-Dibromo-3-chloropropane	1.2	Not Detected J	12	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 (6.5-7)

Lab ID#: 0903307-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t032428	**Date of Collection:**	3/11/09 2:09:00 PM
Dil. Factor:	14.6	**Date of Analysis:**	3/25/09 04:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.5	Not Detected J	7.2	Not Detected
Chloromethane	1.5	Not Detected	3.0	Not Detected
Vinyl Chloride	1.5	Not Detected	3.7	Not Detected
Bromomethane	1.5	Not Detected	5.7	Not Detected
Chloroethane	1.5	Not Detected	3.8	Not Detected
Freon 11	1.5	Not Detected	8.2	Not Detected
Freon 113	1.5	Not Detected	11	Not Detected
1,1-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Acetone	7.3	Not Detected	17	Not Detected
Carbon Disulfide	7.3	Not Detected	23	Not Detected
Methylene Chloride	2.9	Not Detected	10	Not Detected
Methyl tert-butyl ether	1.5	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.5	Not Detected	5.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.5	Not Detected	4.3	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Chloroform	1.5	Not Detected	7.1	Not Detected
1,1,1-Trichloroethane	1.5	Not Detected	8.0	Not Detected
Cyclohexane	1.5	Not Detected	5.0	Not Detected
Carbon Tetrachloride	1.5	Not Detected	9.2	Not Detected
Benzene	1.5	Not Detected	4.7	Not Detected
1,2-Dichloroethane	1.5	Not Detected	5.9	Not Detected
Trichloroethene	1.5	Not Detected	7.8	Not Detected
1,2-Dichloropropane	1.5	Not Detected	6.7	Not Detected
Bromodichloromethane	1.5	Not Detected	9.8	Not Detected
cis-1,3-Dichloropropene	1.5	Not Detected	6.6	Not Detected
4-Methyl-2-pentanone	1.5	Not Detected	6.0	Not Detected
Toluene	1.5	Not Detected	5.5	Not Detected
trans-1,3-Dichloropropene	1.5	Not Detected	6.6	Not Detected
1,1,2-Trichloroethane	1.5	Not Detected	8.0	Not Detected
Tetrachloroethene	1.5	10	9.9	68
2-Hexanone	7.3	Not Detected	30	Not Detected
Dibromochloromethane	1.5	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.5	Not Detected	11	Not Detected
Chlorobenzene	1.5	Not Detected	6.7	Not Detected
Ethyl Benzene	1.5	Not Detected	6.3	Not Detected
m,p-Xylene	1.5	Not Detected	6.3	Not Detected
o-Xylene	1.5	Not Detected J	6.3	Not Detected
Styrene	1.5	Not Detected	6.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 (6.5-7)

Lab ID#: 0903307-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t032428	**Date of Collection:**	3/11/09 2:09:00 PM
Dil. Factor:	14.6	**Date of Analysis:**	3/25/09 04:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	1.5	Not Detected J	15	Not Detected
Cumene	1.5	Not Detected	7.2	Not Detected
1,1,2,2-Tetrachloroethane	1.5	Not Detected	10	Not Detected
1,3-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,4-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,2-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,2,4-Trichlorobenzene	7.3	Not Detected	54	Not Detected
Methyl Acetate	7.3	Not Detected	22	Not Detected
Methylcyclohexane	7.3	Not Detected	29	Not Detected
1,2-Dibromo-3-chloropropane	7.3	Not Detected J	70	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	86	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 (6.5-7)

Lab ID#: 0903307-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032431**	**Date of Collection: 3/11/09 3:40:00 PM**	
Dil. Factor:	**3.87**	**Date of Analysis: 3/25/09 06:29 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.39	0.54	1.9	2.6
Chloromethane	0.39	Not Detected	0.80	Not Detected
Vinyl Chloride	0.39	Not Detected	0.99	Not Detected
Bromomethane	0.39	Not Detected	1.5	Not Detected
Chloroethane	0.39	Not Detected	1.0	Not Detected
Freon 11	0.39	0.52	2.2	2.9
Freon 113	0.39	Not Detected	3.0	Not Detected
1,1-Dichloroethene	0.39	Not Detected	1.5	Not Detected
Acetone	1.9	75	4.6	180
Carbon Disulfide	1.9	Not Detected	6.0	Not Detected
Methylene Chloride	0.77	Not Detected	2.7	Not Detected
Methyl tert-butyl ether	0.39	Not Detected	1.4	Not Detected
trans-1,2-Dichloroethene	0.39	Not Detected	1.5	Not Detected
1,1-Dichloroethane	0.39	Not Detected	1.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.39	17	1.1	51
cis-1,2-Dichloroethene	0.39	Not Detected	1.5	Not Detected
Chloroform	0.39	Not Detected	1.9	Not Detected
1,1,1-Trichloroethane	0.39	1.0	2.1	5.7
Cyclohexane	0.39	Not Detected	1.3	Not Detected
Carbon Tetrachloride	0.39	Not Detected	2.4	Not Detected
Benzene	0.39	3.2	1.2	10
1,2-Dichloroethane	0.39	Not Detected	1.6	Not Detected
Trichloroethene	0.39	Not Detected	2.1	Not Detected
1,2-Dichloropropane	0.39	Not Detected	1.8	Not Detected
Bromodichloromethane	0.39	Not Detected	2.6	Not Detected
cis-1,3-Dichloropropene	0.39	Not Detected	1.8	Not Detected
4-Methyl-2-pentanone	0.39	0.51	1.6	2.1
Toluene	0.39	2.4	1.4	9.1
trans-1,3-Dichloropropene	0.39	Not Detected	1.8	Not Detected
1,1,2-Trichloroethane	0.39	Not Detected	2.1	Not Detected
Tetrachloroethene	0.39	48	2.6	330
2-Hexanone	1.9	Not Detected	7.9	Not Detected
Dibromochloromethane	0.39	Not Detected	3.3	Not Detected
1,2-Dibromoethane (EDB)	0.39	Not Detected	3.0	Not Detected
Chlorobenzene	0.39	Not Detected	1.8	Not Detected
Ethyl Benzene	0.39	Not Detected	1.7	Not Detected
m,p-Xylene	0.39	0.45	1.7	1.9
o-Xylene	0.39	Not Detected	1.7	Not Detected
Styrene	0.39	0.59	1.6	2.5

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 (6.5-7)

Lab ID#: 0903307-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t032431	**Date of Collection:**	3/11/09 3:40:00 PM
Dil. Factor:	3.87	**Date of Analysis:**	3/25/09 06:29 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.39	Not Detected	4.0	Not Detected
Cumene	0.39	Not Detected	1.9	Not Detected
1,1,2,2-Tetrachloroethane	0.39	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,4-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,2-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,2,4-Trichlorobenzene	1.9	Not Detected	14	Not Detected
Methyl Acetate	1.9	Not Detected	5.9	Not Detected
Methylcyclohexane	1.9	Not Detected	7.8	Not Detected
1,2-Dibromo-3-chloropropane	1.9	Not Detected	19	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	86	70-130

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#0903364

Analyses Performed By:
Air Toxics, Ltd.
Folsom, California

Report: #10147R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #0903364 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
SV-9 (6.5-7)	0903364-01A	AIR	3/12/09		X				
AA-1	0903364-02A	AIR	3/12/09		X				
Rep031209	0903364-03A	AIR	3/12/09	SV-2 (6.5-7)	X				
SV-2 (6.5-7)	0903364-04A	AIR	3/12/09		X				
SV-1 (6.5-7)	0903364-05A	AIR	3/12/09		X				
SV-7 (6.5-7)	0903364-06A	AIR	3/12/09		X				
SV-5 (4.5-5)	0903364-07A	AIR	3/12/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15) and NYSDEC Modifications to R9 TO-15 QA/QC Criteria February 2008.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Method TO-15	Air	30 days storage from collection to analysis	Ambient temperature

All samples were analyzed within the specified holding time criteria.

The sample locations with canisters that exceeded return pressure criteria are presented in the following table.

Sample Locations	Return Pressure/Vacuum Reading ("of Hg)
Rep031209	2.5
SV-2 (6.5-7)	1.5

Sample results associated with sample locations analyzed by analytical method TO-15 were qualified, as specified in the table below. All other canister return pressure/vacuum criteria were met.

Criteria	Qualification	
	Detected Analytes	Nondetect Analytes
Return pressure/vacuum < 4"Hg to 1"Hg	J	UJ

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

Sample location(s) SV-2 (6.5-7), SV-1 (6.5-7), SV-7 (6.5-7), and SV-5 (4.5-5) were compliant with the Method TO-15 requirement of analysis within a 24-hour tune clock but not compliant with the NYSDEC requirement of analysis within a 12-hour tune clock. The data was not qualified.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations	ICV %RSD	Methyl acetate	37.1%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 30%	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >30% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >30% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Laboratory duplicates were not performed on a sample location associated with this SDG.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SV-2 (6.5-7)/Rep031209	Freon 12	0.28	0.30	AC
	Freon 11	0.15	ND (0.15)	AC
	Freon 113	7.5	6.9	8.3%
	Acetone	20	19	5.1%

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	1,1-Dichloroethane	0.40	0.35	AC
	2-Butanone	3.7	4.5	19.5%
	1,1,1-Trichloroethane	4.1	4.0	2.4%
	Cyclohexane	ND (0.14)	0.15	AC
	Benzene	0.49	0.52	AC
	Trichloroethene	0.43	0.40	AC
	Toluene	0.39	0.39	AC
	Tetrachloroethene	6.0	6.2	3.3%

ND = Not detected
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Canister return pressure/vacuum (5"Hg ± 1)		X	X		
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Field/Lab Duplicate (%D)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X	X		
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation		X		X	
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
0903364	3/12/09	TO-15	SV-9 (6.5-7)	AIR	No	--	--	--	--	VOC- ICAL %RSD
0903364	3/12/09	TO-15	AA-1	AIR	No	--	--	--	--	VOC- ICAL %RSD
0903364	3/12/09	TO-15	Rep031209	AIR	No	--	--	--	--	VOC-Low final pressure, ICAL %RSD
0903364	3/12/09	TO-15	SV-2 (6.5-7)	AIR	No	--	--	--	--	VOC-Low final pressure, ICAL %RSD
0903364	3/12/09	TO-15	SV-1 (6.5-7)	AIR	No	--	--	--	--	VOC-ICAL %RSD
0903364	3/12/09	TO-15	SV-7 (6.5-7)	AIR	No	--	--	--	--	VOC-ICAL %RSD
0903364	3/12/09	TO-15	SV-5 (4.5-5)	AIR	No	--	--	--	--	VOC-ICAL %RSD

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 13, 2009

PEER REVIEW: Dennis Capria

DATE: May 15, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
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(916) 985-1000 FAX (916) 985-1020

Project Manager: Mike Wolfert
Collected by: (Print and Sign) Pat Prezioso
Company: Arcadis Email: Mike.Wolfert@arcadis-us.
Address: 2 Huntington Quad Suite 1S10, Melville, NY City: Melville State: NY Zip: 11747
Phone: 631-249-7600 Fax: 631-249-7610

Project Info:
P.O. #:
Project #: NY001490.0001.00002
Project Name: Target Rock

Turn Around Time:
☑ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection (start / end)	Analyses Requested	Canister Pressure/Vacuum: Initial	Final	Receipt	Final (psi)
01A	SV-9 (6.5-7)	35154	3/12/09	8:39 AM / 9:08 AM	TO-15	-30	-7		
02A	AA-1	5583	3/12/09	8:57 AM / 16:57	TO-15	-29	-7.5		
03A	Rpc031209	3739	3/12/09	———	TO-15	-30	-6.5		
04A	SV-2 (6.5-7)	33867	3/12/09	10:33 AM / 10:47 AM	TO-15	-30	-6.5		
05A	SV-1 (6.5-7)	14000	3/12/09	10:51 AM / 12:58 PM	TO-15	-30	-6		
06A	SV-7 (6.5-7)	24480	3/12/09	13:44	14:10 TO-15	-30	-7		
07A	SV-5 (4.5-5)	9460	3/12/09	15:36	16:30 TO-15	-30	-7		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Pat Prezioso	3/12/09 1800	Monica Gregson ATL	3/13/09 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
Fed Ex		NA	Good	Yes / No / None	0903364

Form 1292 rev 1

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 (6.5-7)

Lab ID#: 0903364-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z032513	**Date of Collection:**	3/12/09 9:08:00 AM
Dil. Factor:	1.55	**Date of Analysis:**	3/25/09 09:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.35	0.77	1.7
Chloromethane	0.16	Not Detected	0.32	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	0.41	0.87	2.3
Freon 113	0.16	40	1.2	310
1,1-Dichloroethene	0.16	0.22	0.61	0.86
Acetone	0.78	14	1.8	33
Carbon Disulfide	0.78	1.5	2.4	4.6
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	3.6	0.46	11
cis-1,2-Dichloroethene	0.16	0.30	0.61	1.2
Chloroform	0.16	0.17	0.76	0.82
1,1,1-Trichloroethane	0.16	0.68	0.84	3.7
Cyclohexane	0.16	Not Detected	0.53	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
Benzene	0.16	1.4	0.50	4.6
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Trichloroethene	0.16	0.73	0.83	3.9
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.94	0.58	3.6
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	17	1.0	110
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	0.16	0.67	0.71
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 (6.5-7)

Lab ID#: 0903364-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032513**	**Date of Collection: 3/12/09 9:08:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 3/25/09 09:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Methyl Acetate	0.78	Not Detected J	2.3	Not Detected
Methylcyclohexane	0.78	Not Detected	3.1	Not Detected
1,2-Dibromo-3-chloropropane	0.78	Not Detected	7.5	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1

Lab ID#: 0903364-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032514**	**Date of Collection:**	**3/12/09 4:57:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**3/25/09 10:08 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Chloromethane	0.17	0.42	0.35	0.86
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
Bromomethane	0.17	Not Detected	0.65	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
Freon 11	0.17	0.24	0.94	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	8.8	2.0	21
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.17	1.7	0.50	5.1
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	Not Detected	0.63	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1

Lab ID#: 0903364-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032514**	**Date of Collection: 3/12/09 4:57:00 PM**	
Dil. Factor:	**1.68**	**Date of Analysis: 3/25/09 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Methyl Acetate	0.84	Not Detected J	2.5	Not Detected
Methylcyclohexane	0.84	Not Detected	3.4	Not Detected
1,2-Dibromo-3-chloropropane	0.84	Not Detected	8.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	107	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Rep031209

Lab ID#: 0903364-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z032515	**Date of Collection:**	3/12/09 1/1/1990
Dil. Factor:	1.46	**Date of Analysis:**	3/25/09 10:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.30 J	0.72	1.5
Chloromethane	0.15	Not Detected	0.30	Not Detected
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	Not Detected	0.82	Not Detected
Freon 113	0.15	6.9	1.1	53
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	19	1.7	46
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	0.35	0.59	1.4
2-Butanone (Methyl Ethyl Ketone)	0.15	4.5	0.43	13
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	4.0	0.80	22
Cyclohexane	0.15	0.15	0.50	0.51
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
Benzene	0.15	0.52	0.47	1.7
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Trichloroethene	0.15	0.40	0.78	2.1
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	0.39	0.55	1.5
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	6.2	0.99	42
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	Not Detected	0.63	Not Detected
o-Xylene	0.15	Not Detected J	0.63	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Rep031209

Lab ID#: 0903364-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032515**	**Date of Collection:**	**3/12/09 1/1/1990**
Dil. Factor:	**1.46**	**Date of Analysis:**	**3/25/09 10:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)		Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.15	Not Detected	J	1.5	Not Detected
Cumene	0.15	Not Detected		0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected		1.0	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected		0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected		0.88	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected		0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected		5.4	Not Detected
Methyl Acetate	0.73	Not Detected		2.2	Not Detected
Methylcyclohexane	0.73	Not Detected		2.9	Not Detected
1,2-Dibromo-3-chloropropane	0.73	Not Detected	J	7.0	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 (6.5-7)

Lab ID#: 0903364-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032516**	**Date of Collection:**	**3/12/09 10:47:00 AM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**3/25/09 11:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)		Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.28	J	0.70	1.4
Chloromethane	0.14	Not Detected		0.29	Not Detected
Vinyl Chloride	0.14	Not Detected		0.36	Not Detected
Bromomethane	0.14	Not Detected		0.55	Not Detected
Chloroethane	0.14	Not Detected		0.37	Not Detected
Freon 11	0.14	0.15		0.79	0.85
Freon 113	0.14	7.5		1.1	58
1,1-Dichloroethene	0.14	Not Detected		0.56	Not Detected
Acetone	0.70	20		1.7	49
Carbon Disulfide	0.70	Not Detected		2.2	Not Detected
Methylene Chloride	0.28	Not Detected		0.98	Not Detected
Methyl tert-butyl ether	0.14	Not Detected		0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected		0.56	Not Detected
1,1-Dichloroethane	0.14	0.40		0.57	1.6
2-Butanone (Methyl Ethyl Ketone)	0.14	3.7		0.42	11
cis-1,2-Dichloroethene	0.14	Not Detected		0.56	Not Detected
Chloroform	0.14	Not Detected		0.69	Not Detected
1,1,1-Trichloroethane	0.14	4.1		0.77	22
Cyclohexane	0.14	Not Detected		0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected		0.89	Not Detected
Benzene	0.14	0.49		0.45	1.6
1,2-Dichloroethane	0.14	Not Detected		0.57	Not Detected
Trichloroethene	0.14	0.43		0.76	2.3
1,2-Dichloropropane	0.14	Not Detected		0.65	Not Detected
Bromodichloromethane	0.14	Not Detected		0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected		0.64	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected		0.58	Not Detected
Toluene	0.14	0.39		0.53	1.5
trans-1,3-Dichloropropene	0.14	Not Detected		0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected		0.77	Not Detected
Tetrachloroethene	0.14	6.0		0.96	41
2-Hexanone	0.70	Not Detected		2.9	Not Detected
Dibromochloromethane	0.14	Not Detected		1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected		1.1	Not Detected
Chlorobenzene	0.14	Not Detected		0.65	Not Detected
Ethyl Benzene	0.14	Not Detected		0.61	Not Detected
m,p-Xylene	0.14	Not Detected		0.61	Not Detected
o-Xylene	0.14	Not Detected		0.61	Not Detected
Styrene	0.14	Not Detected	J	0.60	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 (6.5-7)

Lab ID#: 0903364-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032516**	**Date of Collection: 3/12/09 10:47:00 AM**	
Dil. Factor:	**1.41**	**Date of Analysis: 3/25/09 11:48 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.14	Not Detected J	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Methyl Acetate	0.70	Not Detected	2.1	Not Detected
Methylcyclohexane	0.70	Not Detected	2.8	Not Detected
1,2-Dibromo-3-chloropropane	0.70	Not Detected J	6.8	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 (6.5-7)

Lab ID#: 0903364-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032517**	**Date of Collection:**	**3/12/09 12:18:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**3/26/09 12:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.33	0.77	1.6
Chloromethane	0.16	Not Detected	0.32	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	12	0.87	69
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	7.6	1.8	18
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.16	1.5	0.63	6.2
2-Butanone (Methyl Ethyl Ketone)	0.16	1.5	0.46	4.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	48	0.84	260
Cyclohexane	0.16	1.7	0.53	5.8
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
Benzene	0.16	0.40	0.50	1.3
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Trichloroethene	0.16	0.27	0.83	1.4
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.32	0.58	1.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	12	1.0	82
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	Not Detected	0.67	Not Detected
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 (6.5-7)

Lab ID#: 0903364-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032517**	**Date of Collection: 3/12/09 12:18:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 3/26/09 12:28 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Methyl Acetate	0.78	Not Detected J	2.3 J	Not Detected
Methylcyclohexane	0.78	Not Detected	3.1	Not Detected
1,2-Dibromo-3-chloropropane	0.78	Not Detected	7.5	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 (6.5-7)

Lab ID#: 0903364-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032518**	**Date of Collection:**	**3/12/09 2:10:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**3/26/09 01:04 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.81	2.0
Chloromethane	0.16	Not Detected	0.34	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Bromomethane	0.16	Not Detected	0.64	Not Detected
Chloroethane	0.16	Not Detected	0.43	Not Detected
Freon 11	0.16	8.1	0.92	45
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	20	1.9	47
Carbon Disulfide	0.82	1.3	2.6	4.1
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1-Dichloroethane	0.16	0.70	0.66	2.8
2-Butanone (Methyl Ethyl Ketone)	0.16	2.5	0.48	7.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	20	0.89	110
Cyclohexane	0.16	0.83	0.56	2.8
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
Benzene	0.16	0.73	0.52	2.3
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.64	0.62	2.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	5.4	1.1	36
2-Hexanone	0.82	Not Detected	3.4	Not Detected
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	0.20	0.71	0.88
o-Xylene	0.16	Not Detected	0.71	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 (6.5-7)

Lab ID#: 0903364-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z032518	Date of Collection:	3/12/09 2:10:00 PM
Dil. Factor:	1.64	Date of Analysis:	3/26/09 01:04 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Methyl Acetate	0.82	0.86 J	2.5	2.6
Methylcyclohexane	0.82	Not Detected	3.3	Not Detected
1,2-Dibromo-3-chloropropane	0.82	Not Detected	7.9	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 (4.5-5)

Lab ID#: 0903364-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032519**	**Date of Collection:**	**3/12/09 4:36:00 PM**
Dil. Factor:	**3.22**	**Date of Analysis:**	**3/26/09 01:45 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.32	0.52	1.6	2.6
Chloromethane	0.32	Not Detected	0.66	Not Detected
Vinyl Chloride	0.32	Not Detected	0.82	Not Detected
Bromomethane	0.32	Not Detected	1.2	Not Detected
Chloroethane	0.32	Not Detected	0.85	Not Detected
Freon 11	0.32	Not Detected	1.8	Not Detected
Freon 113	0.32	19	2.5	150
1,1-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Acetone	1.6	20	3.8	46
Carbon Disulfide	1.6	2.1	5.0	6.5
Methylene Chloride	0.64	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.32	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.32	0.40	1.3	1.6
2-Butanone (Methyl Ethyl Ketone)	0.32	2.6	0.95	7.7
cis-1,2-Dichloroethene	0.32	2.7	1.3	11
Chloroform	0.32	0.65	1.6	3.2
1,1,1-Trichloroethane	0.32	2.0	1.8	11
Cyclohexane	0.32	Not Detected	1.1	Not Detected
Carbon Tetrachloride	0.32	Not Detected	2.0	Not Detected
Benzene	0.32	1.6	1.0	5.3
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
Trichloroethene	0.32	7.8	1.7	42
1,2-Dichloropropane	0.32	Not Detected	1.5	Not Detected
Bromodichloromethane	0.32	Not Detected	2.2	Not Detected
cis-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
4-Methyl-2-pentanone	0.32	Not Detected	1.3	Not Detected
Toluene	0.32	1.0	1.2	3.9
trans-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
1,1,2-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Tetrachloroethene	0.32	87	2.2	590
2-Hexanone	1.6	Not Detected	6.6	Not Detected
Dibromochloromethane	0.32	Not Detected	2.7	Not Detected
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
Chlorobenzene	0.32	Not Detected	1.5	Not Detected
Ethyl Benzene	0.32	Not Detected	1.4	Not Detected
m,p-Xylene	0.32	Not Detected	1.4	Not Detected
o-Xylene	0.32	Not Detected	1.4	Not Detected
Styrene	0.32	Not Detected	1.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 (4.5-5)

Lab ID#: 0903364-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z032519	**Date of Collection:**	3/12/09 4:36:00 PM
Dil. Factor:	3.22	**Date of Analysis:**	3/26/09 01:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.32	Not Detected	3.3	Not Detected
Cumene	0.32	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,4-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2,4-Trichlorobenzene	1.6	Not Detected	12	Not Detected
Methyl Acetate	1.6	Not Detected J	4.9	Not Detected
Methylcyclohexane	1.6	Not Detected	6.5	Not Detected
1,2-Dibromo-3-chloropropane	1.6	Not Detected	16	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	106	70-130

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#0903438

Analyses Performed By:
Air Toxics, Ltd.
Folsom, California

Report: #10148R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #0903438 for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
SS-4	0903438-01A	AIR	3/16/09		X				
SS-5	0903438-02A	AIR	3/16/09		X				
SS-1	0903438-03A	AIR	3/16/09		X				
SS-3	0903438-04A	AIR	3/16/09		X				
SS-2	0903438-05A	AIR	3/16/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15) and NYSDEC Modifications to R9 TO-15 QA/QC Criteria February 2008.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Method TO-15	Air	30 days storage from collection to analysis	Ambient temperature

All samples were analyzed within the specified holding time criteria.

All canister return pressure/vacuum criteria were met.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Laboratory duplicates were not performed on a sample location associated with this SDG.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

A field duplicate was not collected with any sample location associated with this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Canister return pressure/vacuum (5"Hg ± 1)		X		X	
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Field/Lab Duplicate (%D)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation		X		X	
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
0903438	3/16/09	TO-15	SS-4	AIR	Yes	--	--	--	--	
0903438	3/16/09	TO-15	SS-5	AIR	Yes	--	--	--	--	
0903438	3/16/09	TO-15	SS-1	AIR	Yes	--	--	--	--	
0903438	3/16/09	TO-15	SS-3	AIR	Yes	--	--	--	--	
0903438	3/16/09	TO-15	SS-2	AIR	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: May 13, 2009

PEER REVIEW: Dennis Capria

DATE: May 15, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Mike Wolfert

Collected by: (Print and Sign) Pat Prezonki Pat Prezonki

Company: Arcadis Email: Mike.Wolfert@arcadis-us.com

Address: 2 Huntington Quad Suite 1C1, Melville, NY City: Melville State: NY Zip: 11747

Phone: 631-249-7600 Fax: 631-249-7610

Project Info:
P.O. #:
Project #: NY001490.0001.00002
Project Name: Target Rock

Turn Around Time:
☑ Normal
☐ Rush
(specify)

Pressurized by:
Date:
Pressurization Gas: N2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection (start / end)	Analyses Requested	Canister Pressure/Vacuum: Initial	Final	Receipt	Final
01A	SS-4	5695	3/16/09	9:40 AM / 1608	TO-15	-30	-7		
02A	SS-5	35134	3/16/09	11:05 AM / 11:39 AM	TO-15	-30	-7		
03A	SS-1	4342	3/16/09	1340 / 1415	TO-15	-30	-7		
04A	SS-3	36039	3/16/09	1502 / 1535	TO-15	-30	-7		
05A	SS-2	33982	3/16/09	1601 / 1633	TO-15	-30	-7		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Pat Prezonki	3/16/09 1900	Monica Lagden ATL	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
			3/17/09 0920
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp °C	Condition	Custody Seals Intact?	Work Order #
	Fed Ex	NA	NA	Good	Yes / No / None	0903436

MC 3/17/09

Form 1298 rev.1

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	r032409	**Date of Collection:**	3/16/09 10:00:00 AM
Dil. Factor:	12.6	**Date of Analysis:**	3/24/09 01:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.3	Not Detected	31	Not Detected
Chloromethane	25	Not Detected	52	Not Detected
Vinyl Chloride	6.3	Not Detected	16	Not Detected
Bromomethane	6.3	Not Detected	24	Not Detected
Chloroethane	6.3	Not Detected	17	Not Detected
Freon 11	6.3	Not Detected	35	Not Detected
Freon 113	6.3	160	48	1200
1,1-Dichloroethene	6.3	Not Detected	25	Not Detected
Acetone	25	120	60	290
Carbon Disulfide	6.3	Not Detected	20	Not Detected
Methylene Chloride	6.3	Not Detected	22	Not Detected
Methyl tert-butyl ether	6.3	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
1,1-Dichloroethane	6.3	19	26	78
2-Butanone (Methyl Ethyl Ketone)	6.3	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
Chloroform	6.3	Not Detected	31	Not Detected
1,1,1-Trichloroethane	6.3	620	34	3400
Cyclohexane	6.3	Not Detected	22	Not Detected
Carbon Tetrachloride	6.3	Not Detected	40	Not Detected
Benzene	6.3	Not Detected	20	Not Detected
1,2-Dichloroethane	6.3	Not Detected	25	Not Detected
Trichloroethene	6.3	110	34	580
1,2-Dichloropropane	6.3	Not Detected	29	Not Detected
Bromodichloromethane	6.3	Not Detected	42	Not Detected
cis-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
4-Methyl-2-pentanone	6.3	Not Detected	26	Not Detected
Toluene	6.3	Not Detected	24	Not Detected
trans-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
1,1,2-Trichloroethane	6.3	Not Detected	34	Not Detected
Tetrachloroethene	6.3	1300	43	8800
2-Hexanone	25	Not Detected	100	Not Detected
Dibromochloromethane	6.3	Not Detected	54	Not Detected
1,2-Dibromoethane (EDB)	6.3	Not Detected	48	Not Detected
Chlorobenzene	6.3	Not Detected	29	Not Detected
Ethyl Benzene	6.3	Not Detected	27	Not Detected
m,p-Xylene	6.3	Not Detected	27	Not Detected
o-Xylene	6.3	Not Detected	27	Not Detected
Styrene	6.3	Not Detected	27	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032409**	**Date of Collection:**	**3/16/09 10:00:00 AM**
Dil. Factor:	**12.6**	**Date of Analysis:**	**3/24/09 01:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	6.3	Not Detected	65	Not Detected
Cumene	6.3	Not Detected	31	Not Detected
1,1,2,2-Tetrachloroethane	6.3	Not Detected	43	Not Detected
1,3-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,4-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2,4-Trichlorobenzene	25	Not Detected	190	Not Detected
Methyl Acetate	63	Not Detected	190	Not Detected
Methylcyclohexane	25	Not Detected	100	Not Detected
1,2-Dibromo-3-chloropropane	25	Not Detected	240	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	93	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection:**	**3/16/09 11:39:00 AM**
Dil. Factor:	**5.70**	**Date of Analysis:**	**3/23/09 09:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.57	0.58	2.8	2.9
Chloromethane	0.57	Not Detected	1.2	Not Detected
Vinyl Chloride	0.57	0.61	1.4	1.6
Bromomethane	0.57	Not Detected	2.2	Not Detected
Chloroethane	0.57	Not Detected	1.5	Not Detected
Freon 11	0.57	1.4	3.2	7.8
Freon 113	0.57	140	4.4	1100
1,1-Dichloroethene	0.57	Not Detected	2.3	Not Detected
Acetone	2.8	Not Detected	6.8	Not Detected
Carbon Disulfide	2.8	Not Detected	8.9	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	0.57	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.57	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.57	5.0	1.7	15
cis-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
Chloroform	0.57	0.61	2.8	3.0
1,1,1-Trichloroethane	0.57	4.6	3.1	25
Cyclohexane	0.57	Not Detected	2.0	Not Detected
Carbon Tetrachloride	0.57	Not Detected	3.6	Not Detected
Benzene	0.57	0.75	1.8	2.4
1,2-Dichloroethane	0.57	Not Detected	2.3	Not Detected
Trichloroethene	0.57	5.7	3.1	31
1,2-Dichloropropane	0.57	Not Detected	2.6	Not Detected
Bromodichloromethane	0.57	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
4-Methyl-2-pentanone	0.57	Not Detected	2.3	Not Detected
Toluene	0.57	Not Detected	2.1	Not Detected
trans-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
1,1,2-Trichloroethane	0.57	Not Detected	3.1	Not Detected
Tetrachloroethene	0.57	130	3.9	870
2-Hexanone	2.8	Not Detected	12	Not Detected
Dibromochloromethane	0.57	Not Detected	4.8	Not Detected
1,2-Dibromoethane (EDB)	0.57	Not Detected	4.4	Not Detected
Chlorobenzene	0.57	Not Detected	2.6	Not Detected
Ethyl Benzene	0.57	Not Detected	2.5	Not Detected
m,p-Xylene	0.57	Not Detected	2.5	Not Detected
o-Xylene	0.57	Not Detected	2.5	Not Detected
Styrene	0.57	Not Detected	2.4	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection: 3/16/09 11:39:00 AM**	
Dil. Factor:	**5.70**	**Date of Analysis: 3/23/09 09:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.57	Not Detected	5.9	Not Detected
Cumene	0.57	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.57	Not Detected	3.9	Not Detected
1,3-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.6	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	28	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	87	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	r032410	**Date of Collection:**	3/16/09 2:15:00 PM
Dil. Factor:	63.2	**Date of Analysis:**	3/24/09 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	Not Detected	160	Not Detected
Chloromethane	130	Not Detected	260	Not Detected
Vinyl Chloride	32	Not Detected	81	Not Detected
Bromomethane	32	Not Detected	120	Not Detected
Chloroethane	32	Not Detected	83	Not Detected
Freon 11	32	Not Detected	180	Not Detected
Freon 113	32	Not Detected	240	Not Detected
1,1-Dichloroethene	32	37	120	140
Acetone	130	580	300	1400
Carbon Disulfide	32	Not Detected	98	Not Detected
Methylene Chloride	32	Not Detected	110	Not Detected
Methyl tert-butyl ether	32	Not Detected	110	Not Detected
trans-1,2-Dichloroethene	32	Not Detected	120	Not Detected
1,1-Dichloroethane	32	190	130	780
2-Butanone (Methyl Ethyl Ketone)	32	Not Detected	93	Not Detected
cis-1,2-Dichloroethene	32	160	120	620
Chloroform	32	Not Detected	150	Not Detected
1,1,1-Trichloroethane	32	9100	170	50000
Cyclohexane	32	Not Detected	110	Not Detected
Carbon Tetrachloride	32	Not Detected	200	Not Detected
Benzene	32	Not Detected	100	Not Detected
1,2-Dichloroethane	32	Not Detected	130	Not Detected
Trichloroethene	32	5900	170	32000
1,2-Dichloropropane	32	Not Detected	150	Not Detected
Bromodichloromethane	32	Not Detected	210	Not Detected
cis-1,3-Dichloropropene	32	Not Detected	140	Not Detected
4-Methyl-2-pentanone	32	Not Detected	130	Not Detected
Toluene	32	Not Detected	120	Not Detected
trans-1,3-Dichloropropene	32	Not Detected	140	Not Detected
1,1,2-Trichloroethane	32	Not Detected	170	Not Detected
Tetrachloroethene	32	7500	210	51000
2-Hexanone	130	Not Detected	520	Not Detected
Dibromochloromethane	32	Not Detected	270	Not Detected
1,2-Dibromoethane (EDB)	32	Not Detected	240	Not Detected
Chlorobenzene	32	Not Detected	140	Not Detected
Ethyl Benzene	32	Not Detected	140	Not Detected
m,p-Xylene	32	Not Detected	140	Not Detected
o-Xylene	32	Not Detected	140	Not Detected
Styrene	32	Not Detected	130	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032410**	**Date of Collection:**	**3/16/09 2:15:00 PM**
Dil. Factor:	**63.2**	**Date of Analysis:**	**3/24/09 02:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	32	Not Detected	330	Not Detected
Cumene	32	Not Detected	160	Not Detected
1,1,2,2-Tetrachloroethane	32	Not Detected	220	Not Detected
1,3-Dichlorobenzene	32	Not Detected	190	Not Detected
1,4-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2,4-Trichlorobenzene	130	Not Detected	940	Not Detected
Methyl Acetate	320	Not Detected	960	Not Detected
Methylcyclohexane	130	Not Detected	510	Not Detected
1,2-Dibromo-3-chloropropane	130	Not Detected	1200	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	91	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection:**	**3/16/09 3:25:00 PM**
Dil. Factor:	**11.2**	**Date of Analysis:**	**3/25/09 06:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.6	Not Detected	28	Not Detected
Chloromethane	22	Not Detected	46	Not Detected
Vinyl Chloride	5.6	Not Detected	14	Not Detected
Bromomethane	5.6	Not Detected	22	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
Freon 11	5.6	Not Detected	31	Not Detected
Freon 113	5.6	300	43	2300
1,1-Dichloroethene	5.6	Not Detected	22	Not Detected
Acetone	22	61	53	140
Carbon Disulfide	5.6	Not Detected	17	Not Detected
Methylene Chloride	5.6	Not Detected	19	Not Detected
Methyl tert-butyl ether	5.6	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
1,1-Dichloroethane	5.6	15	23	61
2-Butanone (Methyl Ethyl Ketone)	5.6	Not Detected	16	Not Detected
cis-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
Chloroform	5.6	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.6	340	30	1900
Cyclohexane	5.6	Not Detected	19	Not Detected
Carbon Tetrachloride	5.6	Not Detected	35	Not Detected
Benzene	5.6	Not Detected	18	Not Detected
1,2-Dichloroethane	5.6	Not Detected	23	Not Detected
Trichloroethene	5.6	200	30	1000
1,2-Dichloropropane	5.6	Not Detected	26	Not Detected
Bromodichloromethane	5.6	Not Detected	38	Not Detected
cis-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
4-Methyl-2-pentanone	5.6	Not Detected	23	Not Detected
Toluene	5.6	Not Detected	21	Not Detected
trans-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.6	Not Detected	30	Not Detected
Tetrachloroethene	5.6	1400	38	9200
2-Hexanone	22	Not Detected	92	Not Detected
Dibromochloromethane	5.6	Not Detected	48	Not Detected
1,2-Dibromoethane (EDB)	5.6	Not Detected	43	Not Detected
Chlorobenzene	5.6	Not Detected	26	Not Detected
Ethyl Benzene	5.6	Not Detected	24	Not Detected
m,p-Xylene	5.6	Not Detected	24	Not Detected
o-Xylene	5.6	Not Detected	24	Not Detected
Styrene	5.6	Not Detected	24	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection: 3/16/09 3:25:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 3/25/09 06:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	5.6	Not Detected	58	Not Detected
Cumene	5.6	Not Detected	28	Not Detected
1,1,2,2-Tetrachloroethane	5.6	Not Detected	38	Not Detected
1,3-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,4-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	170	Not Detected
Methyl Acetate	56	Not Detected	170	Not Detected
Methylcyclohexane	22	Not Detected	90	Not Detected
1,2-Dibromo-3-chloropropane	22	Not Detected	220	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	r032510	**Date of Collection:**	3/16/09 4:33:00 PM
Dil. Factor:	26.8	**Date of Analysis:**	3/25/09 08:46 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	66	Not Detected
Chloromethane	54	Not Detected	110	Not Detected
Vinyl Chloride	13	Not Detected	34	Not Detected
Bromomethane	13	Not Detected	52	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
Freon 11	13	Not Detected	75	Not Detected
Freon 113	13	430	100	3300
1,1-Dichloroethene	13	Not Detected	53	Not Detected
Acetone	54	340	130	820
Carbon Disulfide	13	Not Detected	42	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
Methyl tert-butyl ether	13	Not Detected	48	Not Detected
trans-1,2-Dichloroethene	13	Not Detected	53	Not Detected
1,1-Dichloroethane	13	33	54	130
2-Butanone (Methyl Ethyl Ketone)	13	Not Detected	40	Not Detected
cis-1,2-Dichloroethene	13	Not Detected	53	Not Detected
Chloroform	13	Not Detected	65	Not Detected
1,1,1-Trichloroethane	13	170	73	910
Cyclohexane	13	Not Detected	46	Not Detected
Carbon Tetrachloride	13	Not Detected	84	Not Detected
Benzene	13	Not Detected	43	Not Detected
1,2-Dichloroethane	13	Not Detected	54	Not Detected
Trichloroethene	13	64	72	340
1,2-Dichloropropane	13	Not Detected	62	Not Detected
Bromodichloromethane	13	Not Detected	90	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	61	Not Detected
4-Methyl-2-pentanone	13	Not Detected	55	Not Detected
Toluene	13	Not Detected	50	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	61	Not Detected
1,1,2-Trichloroethane	13	Not Detected	73	Not Detected
Tetrachloroethene	13	2800	91	19000
2-Hexanone	54	Not Detected	220	Not Detected
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	100	Not Detected
Chlorobenzene	13	Not Detected	62	Not Detected
Ethyl Benzene	13	Not Detected	58	Not Detected
m,p-Xylene	13	Not Detected	58	Not Detected
o-Xylene	13	Not Detected	58	Not Detected
Styrene	13	Not Detected	57	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032510**	**Date of Collection: 3/16/09 4:33:00 PM**	
Dil. Factor:	**26.8**	**Date of Analysis: 3/25/09 08:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	13	Not Detected	140	Not Detected
Cumene	13	Not Detected	66	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	92	Not Detected
1,3-Dichlorobenzene	13	Not Detected	80	Not Detected
1,4-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2,4-Trichlorobenzene	54	Not Detected	400	Not Detected
Methyl Acetate	130	Not Detected	410	Not Detected
Methylcyclohexane	54	Not Detected	220	Not Detected
1,2-Dibromo-3-chloropropane	54	Not Detected	520	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

ARCADIS
Infrastructure, environment, facilities

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Data Usability Summary Report

EAST FARMINGDALE, NEW YORK

Volatile Analyses

SDG#0904492R1

Analyses Performed By:
Air Toxics, Ltd.
Folsom, California

Report: #10278R
Review Level: Tier III
Project: NY001490.0001.00005

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #0904492R1for samples collected in association with the Curtiss-Wright Flow Control Corporation, Target Rock Division Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
Rep042009	0904492R1-01A	AIR	4/20/09		X				
IA-7	0904492R1-02A	AIR	4/20/09		X				
IA-1	0904492R1-03A	AIR	4/20/09		X				
IA-5	0904492R1-04A	AIR	4/20/09		X				
IA-3	0904492R1-05A	AIR	4/20/09		X				
IA-2	0904492R1-06A	AIR	4/20/09		X				
IA-8	0904492R1-07A	AIR	4/20/09		X				
IA-4	0904492R1-08A	AIR	4/20/09		X				
IA-6	0904492R1-09A	AIR	4/20/09		X				
IA-9	0904492R1-010A	AIR	4/21/09		X				
Rep042009	0904492R1-01B	AIR	4/20/09		X				
IA-7	0904492R1-02B	AIR	4/20/09		X				
IA-1	0904492R1-03B	AIR	4/20/09		X				
IA-5	0904492R1-04B	AIR	4/20/09		X				
IA-3	0904492R1-05B	AIR	4/20/09		X				
IA-2	0904492R1-06B	AIR	4/20/09		X				
IA-8	0904492R1-07B	AIR	4/20/09		X				
IA-4	0904492R1-08B	AIR	4/20/09		X				
IA-6	0904492R1-09B	AIR	4/20/09		X				
IA-9	0904492R1-010B	AIR	4/21/09		X				

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method Modified TO-15 and Modified TO-15 SIM (for trichloroethene only). Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15) and NYSDEC Modifications to R9 TO-15 QA/QC Criteria February 2008.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on

data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Method TO-15	Air	30 days storage from collection to analysis	Ambient temperature

All samples were analyzed within the specified holding time criteria.

All canister return pressure/vacuum criteria were met.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
All sample locations (full scan)	ICV %RSD	Methyl acetate	31.8%
		1,2,4-Trichlorobenzene	30.9%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 30%	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >30% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >30% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

1 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
All sample locations (full scan)	1,2,4-Trichlorobenzene	65.1 %

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
LCS percent recovery >130%	Non-detect	No Action
	Detect	J
LCS percent recovery <70% but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
IA-9/IA-9 Lab Duplicate	Freon 12	0.45	0.37	AC
	Chloromethane	1.7	1.4	13%
	Bromomethane	0.18	ND(0.18)	AC
	Chloroethane	0.22	0.18	AC
	Freon 11	2.7	2.8	2.6%
	Acetone	270	270	0%
	Methylene chloride	0.51	ND (0.35)	AC
	2-Butanone	1.6	1.2	NC

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	Benzene	0.52	0.53	AC
	4-Methyl-2-pentanone	2.0	1.5	NC
	Toluene	1.4	1.3	13%
	Ethyl benzene	0.27	0.28	AC
	m,p-xylene	0.77	0.75	AC
	o-xylene	0.26	0.27	0%
	1,4-Dichlorobenzene	1.9	2.1	8.4%

ND Not detected
AC Acceptable
NC Not compliant

The compound(s) 2-butanone and 4-methyl-2-pentanone associated with sample locations IA-9 and IA-9 Lab Duplicate exhibited a RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Results for duplicate samples for compounds detected in either sample, are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
IA-1/Rep042009	Acetone	8800 E	9000 E	2.2%

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by laboratory personnel using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
Rep042009	Acetone	9000 E	--	9000 EJ
IA- 7	Acetone	1800 E	--	1800 EJ
IA-1	Acetone	8800 E	--	8800 EJ

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
IA-5	Acetone	1400 E	--	1400 EJ
IA-3	Acetone	390 E	--	390 EJ
IA-2	Acetone	280 E	--	280 EJ
IA-8	Acetone	1500 E	--	1500 EJ
IA-4	Acetone	1400 E	--	1400 EJ
IA-6	Acetone	1700 E	--	1700 EJ
IA-9	Acetone	270 E	--	270 EJ

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Canister return pressure/vacuum (5"Hg ± 1)		X		X	
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks		X		X	
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Field/Lab Duplicate (%D)		X	X		
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X	X		
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation		X		X	
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					

%RSD Percent relative difference %R Percent recovery
RPD Relative percent difference %D Percent difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB/PEST /HERB	MET	MISC	
0904492R1	4/20/09	TO-15	Rep042009	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-7	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-1	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-5	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-3	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-2	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-8	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-4	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/20/09	TO-15	IA-6	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS
0904492R1	4/21/09	TO-15	IA-9	AIR	No	--	--	--	--	VOC-ICAL %RSD, LCS, RPD

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE:

DATE: June 3, 2009

PEER REVIEW: Dennis Capria

DATE: June 8, 2009

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hot line (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Chris Keen
Collected by: (Print and Sign) Pat Prescott
Company: Arcadis Email: christopher.keen@arcadis-us.com
Address: 2 Huntington Quad, Suite 1C01 City: Melville State: NY Zip: 11747
Phone: 631-249-7600 Fax: 631-391-249-7010

Project Info:
P.O. #:
Project #: NY001498.0001.00002
Project Name: Target Rock

Turn Around Time:
☒ Normal
☐ Rush
(specify)

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection Start	End	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	Rep042009	34032	4/20/09	—		TO-15	7-30	-7		
02A	IA-7	33893	4/20/09	9:19 AM	1629	TO-15	7-30	-9		
03A	IA-1	34481	4/20/09	9:05 AM	1709	TO-15	7-30	-9		
04A	IA-5	R-5	4/20/09	8:50 AM	1613	TO-15	7-30	-7		
05A	IA-3	33963	4/20/09	8:44 AM	1642	TO-15	7-30	-7		
06A	IA-2	33787	4/20/09	8:48 AM	1619	TO-15	7-30	-7		
07A	IA-8	35283	4/20/09	9:18 AM	1625	TO-15	7-30	-7		
08A	IA-4	36043	4/20/09	9:00 AM	1634	TO-15	7-30	-8		
09A	IA-6	33970	4/20/09	8:59	1611	TO-15	7-30	-7		
10A	IA-9	12668	4/21/09	9:25 AM	1800	TO-15	7-30	-9		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Pat Prescott	4/21/09 1900	Monica Labogen ATL	4/22/09 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	0904492

Form 1293 (rev. 1)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042914r1**	**Date of Collection: 4/20/09 1/1/1990**	
Dil. Factor:	**33.6**	**Date of Analysis: 4/29/09 01:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.4	Not Detected	17	Not Detected
Chloromethane	3.4	Not Detected	6.9	Not Detected
Vinyl Chloride	3.4	Not Detected	8.6	Not Detected
Bromomethane	3.4	Not Detected	13	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
Freon 11	3.4	Not Detected	19	Not Detected
Freon 113	3.4	Not Detected	26	Not Detected
1,1-Dichloroethene	3.4	Not Detected	13	Not Detected
Acetone	17	9000 EJ	40	21000 E
Carbon Disulfide	17	Not Detected	52	Not Detected
Methylene Chloride	6.7	Not Detected	23	Not Detected
Methyl tert-butyl ether	3.4	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
1,1-Dichloroethane	3.4	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	9.9	Not Detected
cis-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Chloroform	3.4	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.4	Not Detected	18	Not Detected
Cyclohexane	3.4	Not Detected	12	Not Detected
Carbon Tetrachloride	3.4	Not Detected	21	Not Detected
Benzene	3.4	Not Detected	11	Not Detected
1,2-Dichloroethane	3.4	Not Detected	14	Not Detected
1,2-Dichloropropane	3.4	Not Detected	16	Not Detected
Bromodichloromethane	3.4	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.4	Not Detected	14	Not Detected
Toluene	3.4	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.4	Not Detected	18	Not Detected
Tetrachloroethene	3.4	Not Detected	23	Not Detected
2-Hexanone	17	Not Detected	69	Not Detected
Dibromochloromethane	3.4	Not Detected	29	Not Detected
1,2-Dibromoethane (EDB)	3.4	Not Detected	26	Not Detected
Chlorobenzene	3.4	Not Detected	15	Not Detected
Ethyl Benzene	3.4	Not Detected	14	Not Detected
m,p-Xylene	3.4	Not Detected	14	Not Detected
o-Xylene	3.4	Not Detected	14	Not Detected
Styrene	3.4	Not Detected	14	Not Detected
Bromoform	3.4	Not Detected	35	Not Detected

0008

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042914r1**	**Date of Collection: 4/20/09 1/1/1990**	
Dil. Factor:	**33.6**	**Date of Analysis: 4/29/09 01:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	3.4	Not Detected	16	Not Detected
1,1,2,2-Tetrachloroethane	3.4	Not Detected	23	Not Detected
1,3-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected J	120	Not Detected
Methyl Acetate	17	Not Detected J	51	Not Detected
Methylcyclohexane	17	Not Detected	67	Not Detected
1,2-Dibromo-3-chloropropane	17	Not Detected	160	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042914sim**	**Date of Collection: 4/20/09 1/1/1990**	
Dil. Factor:	**33.6**	**Date of Analysis: 4/29/09 01:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.67	Not Detected	3.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

0017

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042915r1**	**Date of Collection: 4/20/09 4:29:00 PM**	
Dil. Factor:	**17.5**	**Date of Analysis: 4/29/09 02:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.8	Not Detected	8.6	Not Detected
Chloromethane	1.8	Not Detected	3.6	Not Detected
Vinyl Chloride	1.8	Not Detected	4.5	Not Detected
Bromomethane	1.8	Not Detected	6.8	Not Detected
Chloroethane	1.8	Not Detected	4.6	Not Detected
Freon 11	1.8	Not Detected	9.8	Not Detected
Freon 113	1.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.8	Not Detected	6.9	Not Detected
Acetone	8.8	1800 E J	21	4300 E
Carbon Disulfide	8.8	Not Detected	27	Not Detected
Methylene Chloride	3.5	Not Detected	12	Not Detected
Methyl tert-butyl ether	1.8	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	6.9	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.8	2.6	5.2	7.8
cis-1,2-Dichloroethene	1.8	Not Detected	6.9	Not Detected
Chloroform	1.8	Not Detected	8.5	Not Detected
1,1,1-Trichloroethane	1.8	Not Detected	9.5	Not Detected
Cyclohexane	1.8	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.8	Not Detected	11	Not Detected
Benzene	1.8	Not Detected	5.6	Not Detected
1,2-Dichloroethane	1.8	Not Detected	7.1	Not Detected
1,2-Dichloropropane	1.8	Not Detected	8.1	Not Detected
Bromodichloromethane	1.8	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	1.8	Not Detected	7.9	Not Detected
4-Methyl-2-pentanone	1.8	Not Detected	7.2	Not Detected
Toluene	1.8	Not Detected	6.6	Not Detected
trans-1,3-Dichloropropene	1.8	Not Detected	7.9	Not Detected
1,1,2-Trichloroethane	1.8	Not Detected	9.5	Not Detected
Tetrachloroethene	1.8	Not Detected	12	Not Detected
2-Hexanone	8.8	Not Detected	36	Not Detected
Dibromochloromethane	1.8	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.8	Not Detected	13	Not Detected
Chlorobenzene	1.8	Not Detected	8.0	Not Detected
Ethyl Benzene	1.8	Not Detected	7.6	Not Detected
m,p-Xylene	1.8	Not Detected	7.6	Not Detected
o-Xylene	1.8	Not Detected	7.6	Not Detected
Styrene	1.8	Not Detected	7.4	Not Detected
Bromoform	1.8	Not Detected	18	Not Detected

0024

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042915r1**	**Date of Collection: 4/20/09 4:29:00 PM**	
Dil. Factor:	**17.5**	**Date of Analysis: 4/29/09 02:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.8	Not Detected	8.6	Not Detected
1,1,2,2-Tetrachloroethane	1.8	Not Detected	12	Not Detected
1,3-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,4-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,2-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	8.8	Not Detected J	65	Not Detected
Methyl Acetate	8.8	Not Detected J	26	Not Detected
Methylcyclohexane	8.8	Not Detected	35	Not Detected
1,2-Dibromo-3-chloropropane	8.8	Not Detected	84	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

0025

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042915sim**	**Date of Collection: 4/20/09 4:29:00 PM**	
Dil. Factor:	**17.5**	**Date of Analysis: 4/29/09 02:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.35	Not Detected	1.9	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042916r1**	**Date of Collection: 4/20/09 5:09:00 PM**	
Dil. Factor:	**35.8**	**Date of Analysis: 4/29/09 02:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.6	Not Detected	18	Not Detected
Chloromethane	3.6	Not Detected	7.4	Not Detected
Vinyl Chloride	3.6	Not Detected	9.2	Not Detected
Bromomethane	3.6	Not Detected	14	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
Freon 11	3.6	Not Detected	20	Not Detected
Freon 113	3.6	Not Detected	27	Not Detected
1,1-Dichloroethene	3.6	Not Detected	14	Not Detected
Acetone	18	8800 E J	42	21000 E
Carbon Disulfide	18	Not Detected	56	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
Methyl tert-butyl ether	3.6	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
1,1-Dichloroethane	3.6	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
Chloroform	3.6	Not Detected	17	Not Detected
1,1,1-Trichloroethane	3.6	Not Detected	20	Not Detected
Cyclohexane	3.6	Not Detected	12	Not Detected
Carbon Tetrachloride	3.6	Not Detected	22	Not Detected
Benzene	3.6	Not Detected	11	Not Detected
1,2-Dichloroethane	3.6	Not Detected	14	Not Detected
1,2-Dichloropropane	3.6	Not Detected	16	Not Detected
Bromodichloromethane	3.6	Not Detected	24	Not Detected
cis-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
4-Methyl-2-pentanone	3.6	Not Detected	15	Not Detected
Toluene	3.6	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
1,1,2-Trichloroethane	3.6	Not Detected	20	Not Detected
Tetrachloroethene	3.6	Not Detected	24	Not Detected
2-Hexanone	18	Not Detected	73	Not Detected
Dibromochloromethane	3.6	Not Detected	30	Not Detected
1,2-Dibromoethane (EDB)	3.6	Not Detected	28	Not Detected
Chlorobenzene	3.6	Not Detected	16	Not Detected
Ethyl Benzene	3.6	Not Detected	16	Not Detected
m,p-Xylene	3.6	Not Detected	16	Not Detected
o-Xylene	3.6	Not Detected	16	Not Detected
Styrene	3.6	Not Detected	15	Not Detected
Bromoform	3.6	Not Detected	37	Not Detected

0041

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042916r1**	**Date of Collection: 4/20/09 5:09:00 PM**	
Dil. Factor:	**35.8**	**Date of Analysis: 4/29/09 02:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	3.6	Not Detected	18	Not Detected
1,1,2,2-Tetrachloroethane	3.6	Not Detected	24	Not Detected
1,3-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,4-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,2-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,2,4-Trichlorobenzene	18	Not Detected J	130	Not Detected
Methyl Acetate	18	Not Detected J	54	Not Detected
Methylcyclohexane	18	Not Detected	72	Not Detected
1,2-Dibromo-3-chloropropane	18	Not Detected	170	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

0042

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042916sim**	**Date of Collection: 4/20/09 5:09:00 PM**	
Dil. Factor:	**35.8**	**Date of Analysis: 4/29/09 02:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.72	Not Detected	3.8	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

0050

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042917r1**	**Date of Collection: 4/20/09 4:13:00 PM**	
Dil. Factor:	**10.9**	**Date of Analysis: 4/29/09 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	2.6	6.1	14
Freon 113	1.1	Not Detected	8.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Acetone	5.4	1400 E J	13	3300 E
Carbon Disulfide	5.4	Not Detected	17	Not Detected
Methylene Chloride	2.2	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.2	3.2	3.6
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Cyclohexane	1.1	6.5	3.8	22
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	1.2	3.5	3.8
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
Bromodichloromethane	1.1	Not Detected	7.3	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	Not Detected	7.4	Not Detected
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	1.2	4.7	5.0
o-Xylene	1.1	Not Detected	4.7	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected

0057

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042917r1**	**Date of Collection: 4/20/09 4:13:00 PM**	
Dil. Factor:	**10.9**	**Date of Analysis: 4/29/09 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.4	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected J	40	Not Detected
Methyl Acetate	5.4	Not Detected J	16	Not Detected
Methylcyclohexane	5.4	Not Detected	22	Not Detected
1,2-Dibromo-3-chloropropane	5.4	Not Detected	53	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	102	70-130

0058

Air TOXICS LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042917sim**	**Date of Collection: 4/20/09 4:13:00 PM**	
Dil. Factor:	**10.9**	**Date of Analysis: 4/29/09 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.22	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	102	70-130

0071

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-3

Lab ID#: 0904492R1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042918r1**	**Date of Collection:**	**4/20/09 4:42:00 PM**
Dil. Factor:	**3.22**	**Date of Analysis:**	**4/29/09 03:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.32	0.54	1.6	2.7
Chloromethane	0.32	0.68	0.66	1.4
Vinyl Chloride	0.32	Not Detected	0.82	Not Detected
Bromomethane	0.32	Not Detected	1.2	Not Detected
Chloroethane	0.32	Not Detected	0.85	Not Detected
Freon 11	0.32	0.62	1.8	3.4
Freon 113	0.32	Not Detected	2.5	Not Detected
1,1-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Acetone	1.6	390 E J	3.8	920 E
Carbon Disulfide	1.6	Not Detected	5.0	Not Detected
Methylene Chloride	0.64	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.32	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.32	Not Detected	1.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.32	0.65	0.95	1.9
cis-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Chloroform	0.32	Not Detected	1.6	Not Detected
1,1,1-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Cyclohexane	0.32	0.88	1.1	3.0
Carbon Tetrachloride	0.32	Not Detected	2.0	Not Detected
Benzene	0.32	0.41	1.0	1.3
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
Trichloroethene	0.32	Not Detected	1.7	Not Detected
1,2-Dichloropropane	0.32	Not Detected	1.5	Not Detected
Bromodichloromethane	0.32	Not Detected	2.2	Not Detected
cis-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
4-Methyl-2-pentanone	0.32	Not Detected	1.3	Not Detected
Toluene	0.32	0.46	1.2	1.7
trans-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
1,1,2-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Tetrachloroethene	0.32	Not Detected	2.2	Not Detected
2-Hexanone	1.6	Not Detected	6.6	Not Detected
Dibromochloromethane	0.32	Not Detected	2.7	Not Detected
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
Chlorobenzene	0.32	Not Detected	1.5	Not Detected
Ethyl Benzene	0.32	Not Detected	1.4	Not Detected
m,p-Xylene	0.32	0.60	1.4	2.6
o-Xylene	0.32	Not Detected	1.4	Not Detected
Styrene	0.32	Not Detected	1.4	Not Detected

0078

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-3

Lab ID#: 0904492R1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042918r1**	**Date of Collection: 4/20/09 4:42:00 PM**	
Dil. Factor:	**3.22**	**Date of Analysis: 4/29/09 03:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.32	Not Detected	3.3	Not Detected
Cumene	0.32	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,4-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2,4-Trichlorobenzene	1.6	Not Detected J	12	Not Detected
Methyl Acetate	1.6	Not Detected J	4.9	Not Detected
Methylcyclohexane	1.6	Not Detected	6.5	Not Detected
1,2-Dibromo-3-chloropropane	1.6	Not Detected	16	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

0079

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-2

Lab ID#: 0904492R1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042919r1**	**Date of Collection:**	**4/20/09 4:19:00 PM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**4/29/09 04:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.23	0.45	1.2	2.2
Chloromethane	0.23	0.58	0.48	1.2
Vinyl Chloride	0.23	Not Detected	0.60	Not Detected
Bromomethane	0.23	Not Detected	0.91	Not Detected
Chloroethane	0.23	Not Detected	0.62	Not Detected
Freon 11	0.23	0.58	1.3	3.3
Freon 113	0.23	Not Detected	1.8	Not Detected
1,1-Dichloroethene	0.23	Not Detected	0.93	Not Detected
Acetone	1.2	280 E J	2.8	660 E
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
Methylene Chloride	0.47	Not Detected	1.6	Not Detected
Methyl tert-butyl ether	0.23	Not Detected	0.84	Not Detected
trans-1,2-Dichloroethene	0.23	Not Detected	0.93	Not Detected
1,1-Dichloroethane	0.23	Not Detected	0.95	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.23	0.55	0.69	1.6
cis-1,2-Dichloroethene	0.23	Not Detected	0.93	Not Detected
Chloroform	0.23	Not Detected	1.1	Not Detected
1,1,1-Trichloroethane	0.23	Not Detected	1.3	Not Detected
Cyclohexane	0.23	0.80	0.80	2.8
Carbon Tetrachloride	0.23	Not Detected	1.5	Not Detected
Benzene	0.23	0.30	0.75	0.94
1,2-Dichloroethane	0.23	Not Detected	0.95	Not Detected
Trichloroethene	0.23	Not Detected	1.2	Not Detected
1,2-Dichloropropane	0.23	Not Detected	1.1	Not Detected
Bromodichloromethane	0.23	Not Detected	1.6	Not Detected
cis-1,3-Dichloropropene	0.23	Not Detected	1.1	Not Detected
4-Methyl-2-pentanone	0.23	Not Detected	0.96	Not Detected
Toluene	0.23	0.40	0.88	1.5
trans-1,3-Dichloropropene	0.23	Not Detected	1.1	Not Detected
1,1,2-Trichloroethane	0.23	Not Detected	1.3	Not Detected
Tetrachloroethene	0.23	Not Detected	1.6	Not Detected
2-Hexanone	1.2	Not Detected	4.8	Not Detected
Dibromochloromethane	0.23	Not Detected	2.0	Not Detected
1,2-Dibromoethane (EDB)	0.23	Not Detected	1.8	Not Detected
Chlorobenzene	0.23	Not Detected	1.1	Not Detected
Ethyl Benzene	0.23	Not Detected	1.0	Not Detected
m,p-Xylene	0.23	0.40	1.0	1.7
o-Xylene	0.23	Not Detected	1.0	Not Detected
Styrene	0.23	Not Detected	1.0	Not Detected

0096

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-2

Lab ID#: 0904492R1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042919r1**	**Date of Collection: 4/20/09 4:19:00 PM**	
Dil. Factor:	**2.34**	**Date of Analysis: 4/29/09 04:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.23	Not Detected	2.4	Not Detected
Cumene	0.23	Not Detected	1.2	Not Detected
1,1,2,2-Tetrachloroethane	0.23	Not Detected	1.6	Not Detected
1,3-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,4-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,2-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,2,4-Trichlorobenzene	1.2	Not Detected J	8.7	Not Detected
Methyl Acetate	1.2	Not Detected J	3.5	Not Detected
Methylcyclohexane	1.2	Not Detected	4.7	Not Detected
1,2-Dibromo-3-chloropropane	1.2	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

0097

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042920r1**	**Date of Collection: 4/20/09 4:25:00 PM**	
Dil. Factor:	**10.7**	**Date of Analysis: 4/29/09 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	5.4	1500 E J	13	3500 E
Carbon Disulfide	5.4	Not Detected	17	Not Detected
Methylene Chloride	2.1	Not Detected	7.4	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	3.5	3.2	10
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	1.2	4.6	5.1
o-Xylene	1.1	Not Detected	4.6	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected

0114

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042920r1**	**Date of Collection: 4/20/09 4:25:00 PM**	
Dil. Factor:	**10.7**	**Date of Analysis: 4/29/09 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected J	40	Not Detected
Methyl Acetate	5.4	Not Detected J	16	Not Detected
Methylcyclohexane	5.4	Not Detected	21	Not Detected
1,2-Dibromo-3-chloropropane	5.4	Not Detected	52	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

0115

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042920sim**	**Date of Collection: 4/20/09 4:25:00 PM**	
Dil. Factor:	**10.7**	**Date of Analysis: 4/29/09 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.21	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

0125

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042921r1**	**Date of Collection:**	**4/20/09 4:34:00 PM**
Dil. Factor:	**11.4**	**Date of Analysis:**	**4/29/09 05:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Chloromethane	1.1	Not Detected	2.4	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.4	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	2.8	6.4	16
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	5.7	1400 E J	14	3400 E
Carbon Disulfide	5.7	Not Detected	18	Not Detected
Methylene Chloride	2.3	Not Detected	7.9	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.7	3.4	4.9
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Cyclohexane	1.1	1.8	3.9	6.3
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
2-Hexanone	5.7	Not Detected	23	Not Detected
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	1.3	5.0	5.7
o-Xylene	1.1	Not Detected	5.0	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected

0132

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042921r1**	**Date of Collection: 4/20/09 4:34:00 PM**	
Dil. Factor:	**11.4**	**Date of Analysis: 4/29/09 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected J	42	Not Detected
Methyl Acetate	5.7	Not Detected J	17	Not Detected
Methylcyclohexane	5.7	Not Detected	23	Not Detected
1,2-Dibromo-3-chloropropane	5.7	Not Detected	55	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130

0133

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042921sim**	**Date of Collection: 4/20/09 4:34:00 PM**	
Dil. Factor:	**11.4**	**Date of Analysis: 4/29/09 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.23	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	102	70-130

0145

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042922r1**	**Date of Collection: 4/20/09 4:11:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 4/29/09 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Chloromethane	1.1	Not Detected	2.3	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	1.9	6.3	10
Freon 113	1.1	Not Detected	8.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	5.6	1700 E J	13	4100 E
Carbon Disulfide	5.6	Not Detected	17	Not Detected
Methylene Chloride	2.2	Not Detected	7.8	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	1.8	3.6	5.9
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
2-Hexanone	5.6	Not Detected	23	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected

0152

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042922r1**	**Date of Collection: 4/20/09 4:11:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 4/29/09 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	1.2	6.7	7.5
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	5.6	Not Detected J	42	Not Detected
Methyl Acetate	5.6	Not Detected J	17	Not Detected
Methylcyclohexane	5.6	Not Detected	22	Not Detected
1,2-Dibromo-3-chloropropane	5.6	Not Detected	54	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130

0153

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042922sim**	**Date of Collection:**	**4/20/09 4:11:00 PM**
Dil. Factor:	**11.2**	**Date of Analysis:**	**4/29/09 05:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.22	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-9

Lab ID#: 0904492R1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042923r1**	**Date of Collection:**	**4/21/09 6:00:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**4/29/09 07:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.45	0.86	2.2
Chloromethane	0.18	1.7	0.36	3.4
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	0.18	0.68	0.68
Chloroethane	0.18	0.22	0.46	0.57
Freon 11	0.18	2.7	0.98	15
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	270 E J	2.1	630 E
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.51	1.2	1.8
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.18	1.6 J	0.52	4.7
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
Benzene	0.18	0.52	0.56	1.7
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	2.0 J	0.72	8.0
Toluene	0.18	1.4	0.66	5.4
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.27	0.76	1.2
m,p-Xylene	0.18	0.77	0.76	3.4
o-Xylene	0.18	0.26	0.76	1.1
Styrene	0.18	Not Detected	0.74	Not Detected

0171

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-9

Lab ID#: 0904492R1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042923r1**	**Date of Collection: 4/21/09 6:00:00 PM**	
Dil. Factor:	**1.75**	**Date of Analysis: 4/29/09 07:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	1.9	1.0	12
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected J	6.5	Not Detected
Methyl Acetate	0.88	Not Detected J	2.6	Not Detected
Methylcyclohexane	0.88	Not Detected	3.5	Not Detected
1,2-Dibromo-3-chloropropane	0.88	Not Detected	8.4	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

0172

ARCADIS

Appendix K

Soil and Groundwater Laboratory Data

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: FB031309

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: FB031309

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	53 - 125
4-Bromofluorobenzene	86	73 - 127
Dibromofluoromethane	90	54 - 137
Toluene-d8 (Surr)	98	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **FB031309**

Lab Sample ID: 220-8404-1FB
Client Matrix: Water

Date Sampled: 03/13/2009 1520
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0502
Date Prepared: 03/21/2009 0502

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **TB031309**

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: TB031309

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 125
4-Bromofluorobenzene	87	73 - 127
Dibromofluoromethane	92	54 - 137
Toluene-d8 (Surr)	101	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **TB031309**

Lab Sample ID: 220-8404-2TB
Client Matrix: Water

Date Sampled: 03/13/2009 0000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0249
Date Prepared: 03/21/2009 0249

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(10-11)

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.2	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	6.0		1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	29		0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	1.1	J	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	10		0.81	5.0
Toluene	9.9		0.72	5.0
1,1,1-Trichloroethane	18		0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	2.2	J	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	35		2.3	5.0
cis-1,2-Dichloroethene	1.6	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(10-11)

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87	53 - 125
4-Bromofluorobenzene	79	73 - 127
Dibromofluoromethane	86	54 - 137
Toluene-d8 (Surr)	92	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(10-11)

Lab Sample ID: 220-8404-3
Client Matrix: Water

Date Sampled: 03/13/2009 1000
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0342
Date Prepared: 03/21/2009 0342

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 11**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
98-82-8	Benzene, (1-methylethyl)-	9.86	2.4	J N
611-14-3	Benzene, 1-ethyl-2-methyl-	10.38	14	J N
108-67-8	Benzene, 1,3,5-trimethyl-	10.48	5.8	J N
95-63-6	Benzene, 1,2,4-trimethyl-	10.81	11	J N
526-73-8	Benzene, 1,2,3-trimethyl-	11.17	2.9	J N
496-11-7	Indane	11.26	9.5	J N
95-13-6	Indene	11.52	2.9	J N
91-20-3	Naphthalene	12.79	15	
91-57-6	Naphthalene, 2-methyl-	13.53	2.6	J N
90-12-0	Naphthalene, 1-methyl-	13.63	1.8	J N
569-41-5	Naphthalene, 1,8-dimethyl-	14.26	23	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(16-17)**

Lab Sample ID: 220-8404-4
Client Matrix: Water

Date Sampled: 03/13/2009 1021
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.5	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(16-17)

Lab Sample ID: 220-8404-4
Client Matrix: Water

Date Sampled: 03/13/2009 1021
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	87	73 - 127
Dibromofluoromethane	91	54 - 137
Toluene-d8 (Surr)	100	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(16-17)**

Lab Sample ID: 220-8404-4
Client Matrix: Water

Date Sampled: 03/13/2009 1021
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0315
Date Prepared: 03/21/2009 0315

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(28-29)

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.3	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(28-29)

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	53 - 125
4-Bromofluorobenzene	80	73 - 127
Dibromofluoromethane	86	54 - 137
Toluene-d8 (Surr)	93	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(28-29)

Lab Sample ID: 220-8404-5
Client Matrix: Water

Date Sampled: 03/13/2009 1046
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0409
Date Prepared: 03/21/2009 0409

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(48-49)**

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	12	B	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	4.3	J	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	0.68	J *	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	0.88	J	0.81	5.0
Toluene	0.73	J	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(48-49)

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	92	54 - 137
Toluene-d8 (Surr)	91	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(48-49)**

Lab Sample ID: 220-8404-6
Client Matrix: Water

Date Sampled: 03/13/2009 1135
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1723
Date Prepared: 03/23/2009 1723

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3966.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 9**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
115-07-1	Propene	0.99	620	J N
106-98-9	1-Butene	1.23	59	J N
109-67-1	1-Pentene	1.52	92	J N
2402-06-4	Cyclopropane, 1,2-dimethyl-, trans-	1.57	54	J N
627-20-3	2-Pentene, (Z)-	1.69	44	J N
	Unknown	2.08	54	J
592-41-6	1-Hexene	2.50	50	J N
	Unknown Alkene	2.67	28	J
592-43-8	2-Hexene	2.89	22	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(10-11)**

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.2	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	1.4	J	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	2.1	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	3.4	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	1.2	J	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(10-11)**

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	53 - 125
4-Bromofluorobenzene	77	73 - 127
Dibromofluoromethane	82	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(10-11)**

Lab Sample ID: 220-8404-7
Client Matrix: Water

Date Sampled: 03/13/2009 1412
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/21/2009 0435
Date Prepared: 03/21/2009 0435

Analysis Batch: 220-25415

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(16-17)**

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.7	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U *	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(16-17)**

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	53 - 125
4-Bromofluorobenzene	91	73 - 127
Dibromofluoromethane	107	54 - 137
Toluene-d8 (Surr)	105	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(16-17)**

Lab Sample ID: 220-8404-8
Client Matrix: Water

Date Sampled: 03/13/2009 1430
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/23/2009 1817
Date Prepared: 03/23/2009 1817

Analysis Batch: 220-25453

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W3968.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid
% Moisture: 9.0
Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		22	U	2.5	22
Dichlorodifluoromethane		5.5	U	0.38	5.5
Benzene		5.5	U	0.63	5.5
Bromodichloromethane		5.5	U	0.33	5.5
Bromoform		5.5	U	0.67	5.5
Bromomethane		5.5	U	2.3	5.5
Methyl Ethyl Ketone		11	U	1.7	11
Trichlorofluoromethane		5.5	U	0.16	5.5
Carbon disulfide		5.5	U	0.45	5.5
Carbon tetrachloride		5.5	U	1.0	5.5
Chlorobenzene		5.5	U	0.65	5.5
1,1,2-Trichloro-1,2,2-trifluoroethane		5.5	U	0.87	5.5
Chloroethane		5.5	U	1.1	5.5
Chloroform		5.5	U	0.37	5.5
Chloromethane		5.5	U	0.86	5.5
Dibromochloromethane		5.5	U	0.38	5.5
1,1-Dichloroethane		5.5	U	0.33	5.5
1,2-Dichloroethane		5.5	U	0.64	5.5
1,1-Dichloroethene		5.5	U	0.64	5.5
1,2-Dichloropropane		5.5	U	0.74	5.5
cis-1,3-Dichloropropene		5.5	U	0.62	5.5
Methyl acetate		5.5	U	0.48	5.5
trans-1,3-Dichloropropene		5.5	U	0.30	5.5
Ethylbenzene		5.5	U	0.77	5.5
2-Hexanone		11	U	1.3	11
Methylene Chloride		3.6	J B	1.2	22
methyl isobutyl ketone		5.5	U	0.60	5.5
Styrene		5.5	U	0.16	5.5
1,1,2,2-Tetrachloroethane		5.5	U	0.57	5.5
Tetrachloroethene		1.7	J	0.89	5.5
Toluene		1.2	J	0.081	5.5
1,1,1-Trichloroethane		5.5	U	0.58	5.5
1,1,2-Trichloroethane		5.5	U	0.41	5.5
Trichloroethene		5.5	U	0.89	5.5
Vinyl chloride		5.5	U	0.25	5.5
Xylenes, Total		5.5	U	0.53	5.5
cis-1,2-Dichloroethene		5.5	U	0.41	5.5
Cyclohexane		5.5	U	0.76	5.5
trans-1,2-Dichloroethene		5.5	U	0.43	5.5
Isopropylbenzene		5.5	U	0.21	5.5
1,3-Dichlorobenzene		5.5	U	0.23	5.5
1,4-Dichlorobenzene		5.5	U	0.74	5.5
1,2-Dichlorobenzene		5.5	U	0.26	5.5
1,2-Dibromo-3-Chloropropane		11	U	5.0	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid
% Moisture: 9.0
Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.5	U	0.82	5.5
1,2-Dibromoethane		5.5	U	0.84	5.5
Methyl tert-butyl ether		5.5	U	0.23	5.5
Methylcyclohexane		5.5	U	0.36	5.5

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	49 - 134
4-Bromofluorobenzene	101	36 - 133
Dibromofluoromethane	83	60 - 130
Toluene-d8 (Surr)	97	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(7.5-9.5)**

Lab Sample ID: 220-8404-9
Client Matrix: Solid
% Moisture: 9.0
Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1408
Date Prepared: 03/20/2009 1408
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9540.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(13-15)

Lab Sample ID: 220-8404-10
Client Matrix: Solid
% Moisture: 6.3
Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		4.9	J B	2.4	21
Dichlorodifluoromethane		5.3	U	0.37	5.3
Benzene		5.3	U	0.61	5.3
Bromodichloromethane		5.3	U	0.32	5.3
Bromoform		5.3	U	0.65	5.3
Bromomethane		5.3	U	2.2	5.3
Methyl Ethyl Ketone		11	U	1.7	11
Trichlorofluoromethane		5.3	U	0.16	5.3
Carbon disulfide		5.3	U	0.44	5.3
Carbon tetrachloride		5.3	U	1.0	5.3
Chlorobenzene		5.3	U	0.63	5.3
1,1,2-Trichloro-1,2,2-trifluoroethane		5.3	U	0.84	5.3
Chloroethane		5.3	U	1.0	5.3
Chloroform		5.3	U	0.36	5.3
Chloromethane		5.3	U	0.83	5.3
Dibromochloromethane		5.3	U	0.37	5.3
1,1-Dichloroethane		5.3	U	0.32	5.3
1,2-Dichloroethane		5.3	U	0.62	5.3
1,1-Dichloroethene		5.3	U	0.62	5.3
1,2-Dichloropropane		5.3	U	0.72	5.3
cis-1,3-Dichloropropene		5.3	U	0.60	5.3
Methyl acetate		5.3	U	0.47	5.3
trans-1,3-Dichloropropene		5.3	U	0.29	5.3
Ethylbenzene		5.3	U	0.75	5.3
2-Hexanone		11	U	1.3	11
Methylene Chloride		3.7	J B	1.2	21
methyl isobutyl ketone		5.3	U	0.59	5.3
Styrene		5.3	U	0.16	5.3
1,1,2,2-Tetrachloroethane		5.3	U	0.56	5.3
Tetrachloroethene		10		0.86	5.3
Toluene		0.51	J	0.079	5.3
1,1,1-Trichloroethane		5.3	U	0.57	5.3
1,1,2-Trichloroethane		5.3	U	0.40	5.3
Trichloroethene		5.3	U	0.86	5.3
Vinyl chloride		5.3	U	0.25	5.3
Xylenes, Total		5.3	U	0.52	5.3
cis-1,2-Dichloroethene		5.3	U	0.40	5.3
Cyclohexane		5.3	U	0.74	5.3
trans-1,2-Dichloroethene		5.3	U	0.42	5.3
Isopropylbenzene		5.3	U	0.20	5.3
1,3-Dichlorobenzene		5.3	U	0.22	5.3
1,4-Dichlorobenzene		5.3	U	0.72	5.3
1,2-Dichlorobenzene		5.3	U	0.26	5.3
1,2-Dibromo-3-Chloropropane		11	U	4.8	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-9(13-15)

Lab Sample ID: 220-8404-10
Client Matrix: Solid
% Moisture: 6.3
Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.3	U	0.80	5.3
1,2-Dibromoethane		5.3	U	0.81	5.3
Methyl tert-butyl ether		5.3	U	0.22	5.3
Methylcyclohexane		5.3	U	0.35	5.3

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85	49 - 134
4-Bromofluorobenzene	67	36 - 133
Dibromofluoromethane	75	60 - 130
Toluene-d8 (Surr)	81	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-9(13-15)**

Lab Sample ID: 220-8404-10
Client Matrix: Solid
% Moisture: 6.3
Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1433
Date Prepared: 03/20/2009 1433
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9541.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(8-10)

Lab Sample ID: 220-8404-11
Client Matrix: Solid
% Moisture: 1.7
Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		20	U	2.3	20
Dichlorodifluoromethane		5.1	U	0.36	5.1
Benzene		5.1	U	0.58	5.1
Bromodichloromethane		5.1	U	0.31	5.1
Bromoform		5.1	U	0.62	5.1
Bromomethane		5.1	U	2.1	5.1
Methyl Ethyl Ketone		10	U	1.6	10
Trichlorofluoromethane		5.1	U	0.15	5.1
Carbon disulfide		5.1	U	0.42	5.1
Carbon tetrachloride		5.1	U	0.97	5.1
Chlorobenzene		5.1	U	0.60	5.1
1,1,2-Trichloro-1,2,2-trifluoroethane		5.1	U	0.80	5.1
Chloroethane		5.1	U	1.0	5.1
Chloroform		5.1	U	0.35	5.1
Chloromethane		5.1	U	0.79	5.1
Dibromochloromethane		5.1	U	0.36	5.1
1,1-Dichloroethane		5.1	U	0.31	5.1
1,2-Dichloroethane		5.1	U	0.59	5.1
1,1-Dichloroethene		5.1	U	0.59	5.1
1,2-Dichloropropane		5.1	U	0.68	5.1
cis-1,3-Dichloropropene		5.1	U	0.57	5.1
Methyl acetate		5.1	U	0.45	5.1
trans-1,3-Dichloropropene		5.1	U	0.27	5.1
Ethylbenzene		5.1	U	0.71	5.1
2-Hexanone		10	U	1.2	10
Methylene Chloride		1.7	J B	1.1	20
methyl isobutyl ketone		5.1	U	0.56	5.1
Styrene		5.1	U	0.15	5.1
1,1,2,2-Tetrachloroethane		5.1	U	0.53	5.1
Tetrachloroethene		5.1	U	0.82	5.1
Toluene		5.1	U	0.075	5.1
1,1,1-Trichloroethane		5.1	U	0.54	5.1
1,1,2-Trichloroethane		5.1	U	0.38	5.1
Trichloroethene		5.1	U	0.82	5.1
Vinyl chloride		5.1	U	0.23	5.1
Xylenes, Total		5.1	U	0.49	5.1
cis-1,2-Dichloroethene		5.1	U	0.38	5.1
Cyclohexane		5.1	U	0.70	5.1
trans-1,2-Dichloroethene		5.1	U	0.40	5.1
Isopropylbenzene		5.1	U	0.19	5.1
1,3-Dichlorobenzene		5.1	U	0.21	5.1
1,4-Dichlorobenzene		5.1	U	0.68	5.1
1,2-Dichlorobenzene		5.1	U	0.24	5.1
1,2-Dibromo-3-Chloropropane		10	U	4.6	10

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(8-10)

Lab Sample ID: 220-8404-11
Client Matrix: Solid
% Moisture: 1.7
Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.1	U	0.76	5.1
1,2-Dibromoethane		5.1	U	0.77	5.1
Methyl tert-butyl ether		5.1	U	0.21	5.1
Methylcyclohexane		5.1	U	0.34	5.1

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	49 - 134
4-Bromofluorobenzene	98	36 - 133
Dibromofluoromethane	76	60 - 130
Toluene-d8 (Surr)	89	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(8-10)**

Lab Sample ID: 220-8404-11
Client Matrix: Solid
% Moisture: 1.7
Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1459
Date Prepared: 03/20/2009 1459
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9542.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(13-15)**

Lab Sample ID: 220-8404-12
Client Matrix: Solid
% Moisture: 6.8
Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		21	U	2.4	21
Dichlorodifluoromethane		5.4	U	0.38	5.4
Benzene		5.4	U	0.61	5.4
Bromodichloromethane		5.4	U	0.32	5.4
Bromoform		5.4	U	0.65	5.4
Bromomethane		5.4	U	2.2	5.4
Methyl Ethyl Ketone		11	U	1.7	11
Trichlorofluoromethane		5.4	U	0.16	5.4
Carbon disulfide		5.4	U	0.44	5.4
Carbon tetrachloride		5.4	U	1.0	5.4
Chlorobenzene		5.4	U	0.63	5.4
1,1,2-Trichloro-1,2,2-trifluoroethane		5.4	U	0.85	5.4
Chloroethane		5.4	U	1.1	5.4
Chloroform		5.4	U	0.36	5.4
Chloromethane		5.4	U	0.84	5.4
Dibromochloromethane		5.4	U	0.38	5.4
1,1-Dichloroethane		5.4	U	0.32	5.4
1,2-Dichloroethane		5.4	U	0.62	5.4
1,1-Dichloroethene		5.4	U	0.62	5.4
1,2-Dichloropropane		5.4	U	0.72	5.4
cis-1,3-Dichloropropene		5.4	U	0.60	5.4
Methyl acetate		5.4	U	0.47	5.4
trans-1,3-Dichloropropene		5.4	U	0.29	5.4
Ethylbenzene		5.4	U	0.75	5.4
2-Hexanone		11	U	1.3	11
Methylene Chloride		3.9	J B	1.2	21
methyl isobutyl ketone		5.4	U	0.59	5.4
Styrene		5.4	U	0.16	5.4
1,1,2,2-Tetrachloroethane		5.4	U	0.56	5.4
Tetrachloroethene		5.4	U	0.87	5.4
Toluene		0.26	J	0.079	5.4
1,1,1-Trichloroethane		5.4	U	0.57	5.4
1,1,2-Trichloroethane		5.4	U	0.40	5.4
Trichloroethene		5.4	U	0.87	5.4
Vinyl chloride		5.4	U	0.25	5.4
Xylenes, Total		5.4	U	0.52	5.4
cis-1,2-Dichloroethene		5.4	U	0.40	5.4
Cyclohexane		5.4	U	0.74	5.4
trans-1,2-Dichloroethene		5.4	U	0.42	5.4
Isopropylbenzene		5.4	U	0.20	5.4
1,3-Dichlorobenzene		5.4	U	0.23	5.4
1,4-Dichlorobenzene		5.4	U	0.72	5.4
1,2-Dichlorobenzene		5.4	U	0.26	5.4
1,2-Dibromo-3-Chloropropane		11	U	4.9	11

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: **AGW-10(13-15)**

Lab Sample ID: 220-8404-12
Client Matrix: Solid
% Moisture: 6.8
Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.4	U	0.80	5.4
1,2-Dibromoethane		5.4	U	0.82	5.4
Methyl tert-butyl ether		5.4	U	0.23	5.4
Methylcyclohexane		5.4	U	0.35	5.4

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	49 - 134
4-Bromofluorobenzene	110	36 - 133
Dibromofluoromethane	87	60 - 130
Toluene-d8 (Surr)	101	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Client Sample ID: AGW-10(13-15)

Lab Sample ID: 220-8404-12
Client Matrix: Solid
% Moisture: 6.8
Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/20/2009 1524
Date Prepared: 03/20/2009 1524
Analysis Batch: 220-25466
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9543.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 2**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.43	3.1	J
141-78-6	Ethyl Acetate	3.33	37	J N

General Chemistry

Client Sample ID: AGW-9(7.5-9.5)

Lab Sample ID: 220-8404-9
Client Matrix: Solid

Date Sampled: 03/13/2009 0850
Date Received: 03/13/2009 2010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.02		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			
Percent Solids	91.0		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			

Client Sample ID: AGW-9(13-15)

Lab Sample ID: 220-8404-10
Client Matrix: Solid

Date Sampled: 03/13/2009 0910
Date Received: 03/13/2009 2010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.33		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			
Percent Solids	93.7		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			

Client Sample ID: AGW-10(8-10)

Lab Sample ID: 220-8404-11
Client Matrix: Solid

Date Sampled: 03/13/2009 1335
Date Received: 03/13/2009 2010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.67		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			
Percent Solids	98.3		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			

General Chemistry

Client Sample ID: AGW-10(13-15)

Lab Sample ID: 220-8404-12
Client Matrix: Solid

Date Sampled: 03/13/2009 1355
Date Received: 03/13/2009 2010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.77		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			
Percent Solids	93.2		%	0.100	0.100	1.0	PercentMoisture
	Anly Batch: 220-25226		Date Analyzed	03/16/2009 1627			

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 220-8404-1
Sdg Number: 220-8404

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	*	Duplicate RPD exceeds control limits
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	MS or MSD exceeds the control limits
	B	The analyte was found in an associated blank, as well as in the sample.
	N	This flag indicates the presumptive evidence of a compound.

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: FB031709

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U *	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U *	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: FB031709

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	93	54 - 137
Toluene-d8 (Surr)	90	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: FB031709

Lab Sample ID: 220-8431-1EB
Client Matrix: Water

Date Sampled: 03/17/2009 0900
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1146
Date Prepared: 03/25/2009 1146

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2783.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: TB031709

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U *	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U *	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	1.7	J B	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: TB031709

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	53 - 125
4-Bromofluorobenzene	78	73 - 127
Dibromofluoromethane	94	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **TB031709**

Lab Sample ID: 220-8431-2TB
Client Matrix: Water

Date Sampled: 03/17/2009 0000
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1213
Date Prepared: 03/25/2009 1213

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2784.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (10-11)**

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (10-11)**

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78	53 - 125
4-Bromofluorobenzene	74	73 - 127
Dibromofluoromethane	74	54 - 137
Toluene-d8 (Surr)	85	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (10-11)**

Lab Sample ID: 220-8431-3
Client Matrix: Water

Date Sampled: 03/17/2009 0918
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1518
Date Prepared: 03/27/2009 1518

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (16-17)**

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U *	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U *	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (16-17)**

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	53 - 125
4-Bromofluorobenzene	76	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	88	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (16-17)**

Lab Sample ID: 220-8431-4
Client Matrix: Water

Date Sampled: 03/17/2009 0940
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1920
Date Prepared: 03/25/2009 1920

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2800.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (34-35)**

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U *	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U *	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (34-35)**

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 125
4-Bromofluorobenzene	75	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	88	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (34-35)**

Lab Sample ID: 220-8431-5
Client Matrix: Water

Date Sampled: 03/17/2009 1028
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1946
Date Prepared: 03/25/2009 1946

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **1**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.05	6.1	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (54-55)

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.4	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (54-55)

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	53 - 125
4-Bromofluorobenzene	98	73 - 127
Dibromofluoromethane	100	54 - 137
Toluene-d8 (Surr)	114	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (54-55)**

Lab Sample ID: 220-8431-6
Client Matrix: Water

Date Sampled: 03/17/2009 1105
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1545
Date Prepared: 03/27/2009 1545

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4122.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-8 (7-9)

Lab Sample ID: 220-8431-7
Client Matrix: Solid
% Moisture: 3.4
Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402
Analysis Batch: 220-25655
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		21	U	2.3	21
Dichlorodifluoromethane		5.2	U	0.36	5.2
Benzene		5.2	U	0.59	5.2
Bromodichloromethane		5.2	U	0.31	5.2
Bromoform		5.2	U	0.63	5.2
Bromomethane		5.2	U	2.2	5.2
Methyl Ethyl Ketone		10	U	1.6	10
Trichlorofluoromethane		5.2	U	0.16	5.2
Carbon disulfide		5.2	U	0.42	5.2
Carbon tetrachloride		5.2	U	0.98	5.2
Chlorobenzene		5.2	U	0.61	5.2
1,1,2-Trichloro-1,2,2-trifluoroethane		5.2	U	0.82	5.2
Chloroethane		5.2	U	1.0	5.2
Chloroform		5.2	U	0.35	5.2
Chloromethane		5.2	U	0.81	5.2
Dibromochloromethane		5.2	U	0.36	5.2
1,1-Dichloroethane		5.2	U	0.31	5.2
1,2-Dichloroethane		5.2	U	0.60	5.2
1,1-Dichloroethene		5.2	U	0.60	5.2
1,2-Dichloropropane		5.2	U	0.69	5.2
cis-1,3-Dichloropropene		5.2	U	0.58	5.2
Methyl acetate		5.2	U	0.46	5.2
trans-1,3-Dichloropropene		5.2	U	0.28	5.2
Ethylbenzene		5.2	U	0.72	5.2
2-Hexanone		10	U	1.2	10
Methylene Chloride		6.9	J B	1.1	21
methyl isobutyl ketone		5.2	U	0.57	5.2
Styrene		5.2	U	0.16	5.2
1,1,2,2-Tetrachloroethane		5.2	U	0.54	5.2
Tetrachloroethene		5.2	U	0.84	5.2
Toluene		5.2	U	0.077	5.2
1,1,1-Trichloroethane		5.2	U	0.55	5.2
1,1,2-Trichloroethane		5.2	U	0.38	5.2
Trichloroethene		5.2	U	0.84	5.2
Vinyl chloride		5.2	U	0.24	5.2
Xylenes, Total		5.2	U	0.50	5.2
cis-1,2-Dichloroethene		5.2	U	0.38	5.2
Cyclohexane		5.2	U	0.71	5.2
trans-1,2-Dichloroethene		5.2	U	0.40	5.2
Isopropylbenzene		5.2	U	0.20	5.2
1,3-Dichlorobenzene		5.2	U	0.22	5.2
1,4-Dichlorobenzene		5.2	U	0.69	5.2
1,2-Dichlorobenzene		5.2	U	0.25	5.2
1,2-Dibromo-3-Chloropropane		10	U	4.7	10

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (7-9)**

Lab Sample ID: 220-8431-7
Client Matrix: Solid
% Moisture: 3.4
Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402
Analysis Batch: 220-25655
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		5.2	U	0.78	5.2
1,2-Dibromoethane		5.2	U	0.79	5.2
Methyl tert-butyl ether		5.2	U	0.22	5.2
Methylcyclohexane		5.2	U	0.34	5.2

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	49 - 134
4-Bromofluorobenzene	109	36 - 133
Dibromofluoromethane	80	60 - 130
Toluene-d8 (Surr)	100	51 - 137

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-8 (7-9)**

Lab Sample ID: 220-8431-7
Client Matrix: Solid
% Moisture: 3.4
Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/26/2009 1402
Date Prepared: 03/26/2009 1402
Analysis Batch: 220-25655
Instrument ID: HP 5890/5971A GC/MS
Lab File ID: O9702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (12-13)**

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.3	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	1.6	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (12-13)**

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 125
4-Bromofluorobenzene	91	73 - 127
Dibromofluoromethane	93	54 - 137
Toluene-d8 (Surr)	105	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (12-13)**

Lab Sample ID: 220-8431-8
Client Matrix: Water

Date Sampled: 03/17/2009 1318
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1612
Date Prepared: 03/27/2009 1612

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4123.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (34-35)**

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.6	J	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	0.78	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (34-35)**

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	53 - 125
4-Bromofluorobenzene	93	73 - 127
Dibromofluoromethane	97	54 - 137
Toluene-d8 (Surr)	110	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (34-35)**

Lab Sample ID: 220-8431-9
Client Matrix: Water

Date Sampled: 03/17/2009 1348
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 1638
Date Prepared: 03/27/2009 1638

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4124.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown Alkene	0.98	5.4	J
	Unknown	1.07	0.65	J
106-98-9	1-Butene	1.14	18	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (54-55)**

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U *	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U *	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: AGW-1 (54-55)

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 125
4-Bromofluorobenzene	77	73 - 127
Dibromofluoromethane	94	54 - 137
Toluene-d8 (Surr)	89	63 - 121

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Client Sample ID: **AGW-1 (54-55)**

Lab Sample ID: 220-8431-10
Client Matrix: Water

Date Sampled: 03/17/2009 1503
Date Received: 03/17/2009 1900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/25/2009 1734
Date Prepared: 03/25/2009 1734

Analysis Batch: 220-25517

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2796.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **1**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.41	5.0	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

General Chemistry

Client Sample ID: AGW-8 (7-9)

Lab Sample ID: 220-8431-7
Client Matrix: Solid

Date Sampled: 03/17/2009 0850
Date Received: 03/17/2009 1900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.43		%	0.100	0.100	1.0	PercentMoisture
Anly Batch: 220-25327	Date Analyzed		03/18/2009 1642				
Percent Solids	96.6		%	0.100	0.100	1.0	PercentMoisture
Anly Batch: 220-25327	Date Analyzed		03/18/2009 1642				

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 220-8431-1
Sdg Number: 220-8431

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	*	Duplicate RPD exceeds control limits
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	MS or MSD exceeds the control limits
	B	The analyte was found in an associated blank, as well as in the sample.
	N	This flag indicates the presumptive evidence of a compound.

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: TB031809

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **TB031809**

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	65 - 136
4-Bromofluorobenzene	74	51 - 142
Dibromofluoromethane	79	68 - 132
Toluene-d8 (Surr)	89	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: TB031809

Lab Sample ID: 220-8451-1TB
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2012
Date Prepared: 03/27/2009 2012

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4132.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	65 - 136
4-Bromofluorobenzene	73	51 - 142
Dibromofluoromethane	78	68 - 132
Toluene-d8 (Surr)	86	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **Rep031809**

Lab Sample ID: 220-8451-2
Client Matrix: Water

Date Sampled: 03/18/2009 0000
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2038
Date Prepared: 03/27/2009 2038

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4133.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (13-14)**

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.3	J *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (13-14)

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85	65 - 136
4-Bromofluorobenzene	74	51 - 142
Dibromofluoromethane	79	68 - 132
Toluene-d8 (Surr)	87	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (13-14)**

Lab Sample ID: 220-8451-3
Client Matrix: Water

Date Sampled: 03/18/2009 0840
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2105
Date Prepared: 03/27/2009 2105

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4134.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (34-35)**

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	3.6	J *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (34-35)**

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	97	68 - 132
Toluene-d8 (Surr)	106	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-7 (34-35)

Lab Sample ID: 220-8451-4
Client Matrix: Water

Date Sampled: 03/18/2009 0927
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2132
Date Prepared: 03/27/2009 2132

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4135.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
115-07-1	Propene	0.98	24	J N
	Unknown Alkene	1.14	27	J
	Unknown Cycloalkane	1.52	29	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.4	J *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.26	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	65 - 136
4-Bromofluorobenzene	81	51 - 142
Dibromofluoromethane	86	68 - 132
Toluene-d8 (Surr)	95	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-7 (54-55)**

Lab Sample ID: 220-8451-5
Client Matrix: Water

Date Sampled: 03/18/2009 1002
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2158
Date Prepared: 03/27/2009 2158

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4136.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (10-11)**

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.1	J *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	2.4	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	0.70	J	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (10-11)**

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	65 - 136
4-Bromofluorobenzene	78	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	93	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (10-11)**

Lab Sample ID: 220-8451-6
Client Matrix: Water

Date Sampled: 03/18/2009 1057
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2225
Date Prepared: 03/27/2009 2225

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4137.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (34-35)

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.3	J *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-2 (34-35)

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	65 - 136
4-Bromofluorobenzene	75	51 - 142
Dibromofluoromethane	82	68 - 132
Toluene-d8 (Surr)	89	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (34-35)**

Lab Sample ID: 220-8451-7
Client Matrix: Water

Date Sampled: 03/18/2009 1127
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2251
Date Prepared: 03/27/2009 2251

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4138.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown Alkene	0.98	14	J
	Unknown Alkene	1.14	16	J
	Unknown Alkene	1.53	29	J

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (44-45)**

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6	J *	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	1.7	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (44-45)**

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	65 - 136
4-Bromofluorobenzene	76	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	91	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-2 (44-45)**

Lab Sample ID: 220-8451-8
Client Matrix: Water

Date Sampled: 03/18/2009 1357
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2318
Date Prepared: 03/27/2009 2318

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4139.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **1**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
354-23-4	Ethane, 1,2-dichloro-1,1,2-trifluoro-	1.87	17	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-11 (10-11)**

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U *	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	29	*	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	3.4	J	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	2.6	J	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: AGW-11 (10-11)

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	65 - 136
4-Bromofluorobenzene	80	51 - 142
Dibromofluoromethane	85	68 - 132
Toluene-d8 (Surr)	93	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-11 (10-11)**

Lab Sample ID: 220-8451-9
Client Matrix: Water

Date Sampled: 03/18/2009 1508
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2344
Date Prepared: 03/27/2009 2344

Analysis Batch: 220-25638

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: W4140.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **2**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
79-38-9	Ethene, chlorotrifluoro-	1.00	18	J N
354-23-4	Ethane, 1,2-dichloro-1,1,2-trifluoro-	1.87	14	J N

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-11 (34-35)**

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-11 (34-35)**

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	102	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Client Sample ID: **AGW-11 (34-35)**

Lab Sample ID: 220-8451-10
Client Matrix: Water

Date Sampled: 03/18/2009 1535
Date Received: 03/19/2009 0945

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2326
Date Prepared: 03/27/2009 2326

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2885.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **1**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.06	10	J

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 220-8451-1
Sdg Number: 220-8451

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	N	This flag indicates the presumptive evidence of a compound.

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: TB031909

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: TB031909

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	101	68 - 132
Toluene-d8 (Surr)	101	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **TB031909**

Lab Sample ID: 220-8458-1TB
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/27/2009 2352
Date Prepared: 03/27/2009 2352

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2886.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (10-11')

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (10-11')

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	105	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (10-11')**

Lab Sample ID: 220-8458-2
Client Matrix: Water

Date Sampled: 03/19/2009 0830
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0019
Date Prepared: 03/28/2009 0019

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2887.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (34-35')

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.3	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (34-35')

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (34-35')

Lab Sample ID: 220-8458-3
Client Matrix: Water

Date Sampled: 03/19/2009 0857
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0045
Date Prepared: 03/28/2009 0045

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2888.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (54-55')

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	0.71	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-3 (54-55')

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	105	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-3 (54-55')**

Lab Sample ID: 220-8458-4
Client Matrix: Water

Date Sampled: 03/19/2009 0936
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0112
Date Prepared: 03/28/2009 0112

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2889.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (10-11')

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0138
Date Prepared: 03/28/2009 0138

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (10-11')

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0138
Date Prepared: 03/28/2009 0138

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (10-11')**

Lab Sample ID: 220-8458-5
Client Matrix: Water

Date Sampled: 03/19/2009 1042
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 220-25651	Instrument ID: HP 6890/5973 GC/MS
Preparation:	5030B		Lab File ID: V2890.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	03/28/2009 0138		Final Weight/Volume: 5 mL
Date Prepared:	03/28/2009 0138		

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (34-35')

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (34-35')

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.27	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-4 (34-35')**

Lab Sample ID: 220-8458-6
Client Matrix: Water

Date Sampled: 03/19/2009 1100
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0205
Date Prepared: 03/28/2009 0205

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2891.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (54-55')

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (54-55')

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-4 (54-55')

Lab Sample ID: 220-8458-7
Client Matrix: Water

Date Sampled: 03/19/2009 1145
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0231
Date Prepared: 03/28/2009 0231

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2892.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (8-9')

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (8-9')

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (8-9')

Lab Sample ID: 220-8458-8
Client Matrix: Water

Date Sampled: 03/19/2009 1310
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0257
Date Prepared: 03/28/2009 0257

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2893.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (34-35')

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (34-35')

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (34-35')

Lab Sample ID: 220-8458-9
Client Matrix: Water

Date Sampled: 03/19/2009 1334
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0324
Date Prepared: 03/28/2009 0324

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2894.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (54-55')

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.7	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (54-55')

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-5 (54-55')

Lab Sample ID: 220-8458-10
Client Matrix: Water

Date Sampled: 03/19/2009 1420
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0350
Date Prepared: 03/28/2009 0350

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2895.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **Rep031909**

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: Rep031909

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **Rep031909**

Lab Sample ID: 220-8458-11
Client Matrix: Water

Date Sampled: 03/19/2009 0000
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0417
Date Prepared: 03/28/2009 0417

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2896.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-11 (51-55')**

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-11 (51-55')

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	0.17	J	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	65 - 136
4-Bromofluorobenzene	91	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-11 (51-55')**

Lab Sample ID: 220-8458-12
Client Matrix: Water

Date Sampled: 03/19/2009 1634
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0443
Date Prepared: 03/28/2009 0443

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2897.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-6 (10-11')

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0510
Date Prepared: 03/28/2009 0510

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2898.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: AGW-6 (10-11')

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/28/2009 0510
Date Prepared: 03/28/2009 0510

Analysis Batch: 220-25651

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2898.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	65 - 136
4-Bromofluorobenzene	92	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Client Sample ID: **AGW-6 (10-11')**

Lab Sample ID: 220-8458-13
Client Matrix: Water

Date Sampled: 03/19/2009 1520
Date Received: 03/20/2009 0934

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 220-25651	Instrument ID: HP 6890/5973 GC/MS
Preparation:	5030B		Lab File ID: V2898.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	03/28/2009 0510		Final Weight/Volume: 5 mL
Date Prepared:	03/28/2009 0510		

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 220-8458-1
Sdg Number: 220-8458

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	MS or MSD exceeds the control limits

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TB032309**

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TB032309

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	106	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TB032309**

Lab Sample ID: 220-8500-1TB
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0010
Date Prepared: 03/30/2009 0010

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2932.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **FB032309**

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	2.9	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	1.3	J B	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	3.4	J	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: FB032309

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **FB032309**

Lab Sample ID: 220-8500-2FB
Client Matrix: Water

Date Sampled: 03/23/2009 1645
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0036
Date Prepared: 03/30/2009 0036

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2933.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	1.8	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **Rep032309**

Lab Sample ID: 220-8500-3
Client Matrix: Water

Date Sampled: 03/23/2009 0000
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0103
Date Prepared: 03/30/2009 0103

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2934.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-5

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U *	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U *	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-5

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-5**

Lab Sample ID: 220-8500-4
Client Matrix: Water

Date Sampled: 03/23/2009 1242
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1113
Date Prepared: 03/30/2009 1113

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2952.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-1

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-1**

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-1**

Lab Sample ID: 220-8500-5
Client Matrix: Water

Date Sampled: 03/23/2009 1401
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0129
Date Prepared: 03/30/2009 0129

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2935.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-2**

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.97	5.0
Chloroethane	5.0	U	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-2

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	110	68 - 132
Toluene-d8 (Surr)	103	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-2**

Lab Sample ID: 220-8500-6
Client Matrix: Water

Date Sampled: 03/23/2009 1555
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 0156
Date Prepared: 03/30/2009 0156

Analysis Batch: 220-25682

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2936.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-4**

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U *	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	1.8	J	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U *	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: TRMW-4

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	65 - 136
4-Bromofluorobenzene	94	51 - 142
Dibromofluoromethane	107	68 - 132
Toluene-d8 (Surr)	104	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-4**

Lab Sample ID: 220-8500-7
Client Matrix: Water

Date Sampled: 03/23/2009 1705
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1139
Date Prepared: 03/30/2009 1139

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2953.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-3**

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U *	1.0	10
Dichlorodifluoromethane	5.0	U *	1.0	5.0
Benzene	5.0	U	0.74	5.0
Bromodichloromethane	5.0	U	0.48	5.0
Bromoform	5.0	U	0.46	5.0
Bromomethane	5.0	U	2.1	5.0
Methyl Ethyl Ketone	10	U *	1.1	10
Trichlorofluoromethane	5.0	U	1.1	5.0
Carbon disulfide	5.0	U	0.90	5.0
Carbon tetrachloride	5.0	U	1.1	5.0
Chlorobenzene	5.0	U	0.72	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U *	0.97	5.0
Chloroethane	5.0	U *	1.1	5.0
Chloroform	5.0	U	0.67	5.0
Chloromethane	5.0	U	1.1	5.0
Dibromochloromethane	5.0	U	0.55	5.0
1,1-Dichloroethane	5.0	U	1.0	5.0
1,2-Dichloroethane	5.0	U	0.72	5.0
1,1-Dichloroethene	5.0	U	0.83	5.0
1,2-Dichloropropane	5.0	U	0.71	5.0
cis-1,3-Dichloropropene	5.0	U	0.28	5.0
Methyl acetate	5.0	U *	0.48	5.0
trans-1,3-Dichloropropene	5.0	U	0.57	5.0
Ethylbenzene	5.0	U	0.87	5.0
2-Hexanone	10	U	1.1	10
Methylene Chloride	5.0	U	0.78	5.0
methyl isobutyl ketone	10	U	0.38	10
Styrene	5.0	U	0.64	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.81	5.0
Tetrachloroethene	5.0	U	0.81	5.0
Toluene	5.0	U	0.72	5.0
1,1,1-Trichloroethane	5.0	U	0.69	5.0
1,1,2-Trichloroethane	5.0	U	0.65	5.0
Trichloroethene	5.0	U	0.62	5.0
Vinyl chloride	5.0	U	0.99	5.0
Xylenes, Total	5.0	U	2.3	5.0
cis-1,2-Dichloroethene	5.0	U	0.99	5.0
Cyclohexane	5.0	U	0.70	5.0
trans-1,2-Dichloroethene	5.0	U	0.76	5.0
Isopropylbenzene	5.0	U	0.85	5.0
1,3-Dichlorobenzene	5.0	U	0.14	5.0
1,4-Dichlorobenzene	5.0	U	0.59	5.0
1,2-Dichlorobenzene	5.0	U	0.22	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-3**

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	5.0	U	0.72	5.0
1,2-Dibromoethane	5.0	U	0.52	5.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylcyclohexane	5.0	U	0.98	5.0

Surrogate	%Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	65 - 136
4-Bromofluorobenzene	93	51 - 142
Dibromofluoromethane	108	68 - 132
Toluene-d8 (Surr)	102	63 - 127

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Client Sample ID: **TRMW-3**

Lab Sample ID: 220-8500-8
Client Matrix: Water

Date Sampled: 03/23/2009 1758
Date Received: 03/24/2009 0950

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 03/30/2009 1206
Date Prepared: 03/30/2009 1206

Analysis Batch: 220-25694

Instrument ID: HP 6890/5973 GC/MS
Lab File ID: V2954.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 220-8500-1
Sdg Number: 220-8500

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	MS or MSD exceeds the control limits
	B	The analyte was found in an associated blank, as well as in the sample.

ARCADIS

Appendix L

Soil Vapor and Air Laboratory Data

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718r1**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 01:01 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.56	0.72	2.8	3.5
Chloromethane	0.56	Not Detected	1.2	Not Detected
Vinyl Chloride	0.56	Not Detected	1.4	Not Detected
Bromomethane	0.56	Not Detected	2.2	Not Detected
Chloroethane	0.56	Not Detected	1.5	Not Detected
Freon 11	0.56	1.1	3.1	6.0
Freon 113	0.56	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Acetone	2.8	170	6.6	390
Carbon Disulfide	2.8	4.5	8.7	14
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
Methyl tert-butyl ether	0.56	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.56	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.56	4.3	1.6	12
cis-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Chloroform	0.56	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.56	33	3.0	180
Cyclohexane	0.56	Not Detected	1.9	Not Detected
Carbon Tetrachloride	0.56	Not Detected	3.5	Not Detected
Benzene	0.56	1.1	1.8	3.6
1,2-Dichloroethane	0.56	Not Detected	2.3	Not Detected
Trichloroethene	0.56	Not Detected	3.0	Not Detected
1,2-Dichloropropane	0.56	Not Detected	2.6	Not Detected
Bromodichloromethane	0.56	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
4-Methyl-2-pentanone	0.56	Not Detected	2.3	Not Detected
Toluene	0.56	3.4	2.1	13
trans-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.56	Not Detected	3.0	Not Detected
Tetrachloroethene	0.56	20	3.8	140
2-Hexanone	2.8	Not Detected	11	Not Detected
Dibromochloromethane	0.56	0.64	4.8	5.4
1,2-Dibromoethane (EDB)	0.56	Not Detected	4.3	Not Detected
Chlorobenzene	0.56	Not Detected	2.6	Not Detected
Ethyl Benzene	0.56	7.4	2.4	32
m,p-Xylene	0.56	33	2.4	140
o-Xylene	0.56	11	2.4	47
Styrene	0.56	Not Detected	2.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-7

Lab ID#: 0903271R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031718r1**	**Date of Collection: 3/9/09 11:17:00 AM**	
Dil. Factor:	**5.60**	**Date of Analysis: 3/18/09 01:01 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Bromoform	0.56	0.71	5.8	7.3
Cumene	0.56	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.56	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.56	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.5	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	27	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719r1**	**Date of Collection: 3/9/09 1:51:00 PM**	
Dil. Factor:	**5.27**	**Date of Analysis: 3/18/09 01:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.53	0.61	2.6	3.0
Chloromethane	0.53	Not Detected	1.1	Not Detected
Vinyl Chloride	0.53	Not Detected	1.3	Not Detected
Bromomethane	0.53	Not Detected	2.0	Not Detected
Chloroethane	0.53	Not Detected	1.4	Not Detected
Freon 11	0.53	0.59	3.0	3.3
Freon 113	0.53	Not Detected	4.0	Not Detected
1,1-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Acetone	2.6	480 E	6.2	1100 E
Carbon Disulfide	2.6	Not Detected	8.2	Not Detected
Methylene Chloride	1.0	Not Detected	3.7	Not Detected
Methyl tert-butyl ether	0.53	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
1,1-Dichloroethane	0.53	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.53	2.8	1.6	8.4
cis-1,2-Dichloroethene	0.53	Not Detected	2.1	Not Detected
Chloroform	0.53	Not Detected	2.6	Not Detected
1,1,1-Trichloroethane	0.53	0.76	2.9	4.1
Cyclohexane	0.53	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.53	Not Detected	3.3	Not Detected
Benzene	0.53	0.62	1.7	2.0
1,2-Dichloroethane	0.53	Not Detected	2.1	Not Detected
Trichloroethene	0.53	1.0	2.8	5.5
1,2-Dichloropropane	0.53	Not Detected	2.4	Not Detected
Bromodichloromethane	0.53	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.53	Not Detected	2.2	Not Detected
Toluene	0.53	3.2	2.0	12
trans-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
1,1,2-Trichloroethane	0.53	Not Detected	2.9	Not Detected
Tetrachloroethene	0.53	22	3.6	150
2-Hexanone	2.6	Not Detected	11	Not Detected
Dibromochloromethane	0.53	Not Detected	4.5	Not Detected
1,2-Dibromoethane (EDB)	0.53	Not Detected	4.0	Not Detected
Chlorobenzene	0.53	Not Detected	2.4	Not Detected
Ethyl Benzene	0.53	0.93	2.3	4.0
m,p-Xylene	0.53	2.5	2.3	11
o-Xylene	0.53	1.0	2.3	4.4
Styrene	0.53	Not Detected	2.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-8

Lab ID#: 0903271R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031719r1**	**Date of Collection: 3/9/09 1:51:00 PM**	
Dil. Factor:	**5.27**	**Date of Analysis: 3/18/09 01:46 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Bromoform	0.53	Not Detected	5.4	Not Detected
Cumene	0.53	Not Detected	2.6	Not Detected
1,1,2,2-Tetrachloroethane	0.53	Not Detected	3.6	Not Detected
1,3-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,4-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	20	Not Detected
Methyl Acetate	2.6	Not Detected	8.0	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031720r1**	**Date of Collection: 3/9/09 4:25:00 PM**	
Dil. Factor:	**5.17**	**Date of Analysis: 3/18/09 02:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.52	0.58	2.6	2.9
Chloromethane	0.52	Not Detected	1.1	Not Detected
Vinyl Chloride	0.52	Not Detected	1.3	Not Detected
Bromomethane	0.52	Not Detected	2.0	Not Detected
Chloroethane	0.52	Not Detected	1.4	Not Detected
Freon 11	0.52	0.70	2.9	4.0
Freon 113	0.52	12	4.0	91
1,1-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Acetone	2.6	350 E	6.1	820 E
Carbon Disulfide	2.6	3.5	8.0	11
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	0.52	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.52	Not Detected	2.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.52	5.6	1.5	17
cis-1,2-Dichloroethene	0.52	Not Detected	2.0	Not Detected
Chloroform	0.52	Not Detected	2.5	Not Detected
1,1,1-Trichloroethane	0.52	1.9	2.8	10
Cyclohexane	0.52	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.52	Not Detected	3.2	Not Detected
Benzene	0.52	1.0	1.6	3.2
1,2-Dichloroethane	0.52	Not Detected	2.1	Not Detected
Trichloroethene	0.52	Not Detected	2.8	Not Detected
1,2-Dichloropropane	0.52	Not Detected	2.4	Not Detected
Bromodichloromethane	0.52	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.52	Not Detected	2.1	Not Detected
Toluene	0.52	1.4	1.9	5.1
trans-1,3-Dichloropropene	0.52	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.52	Not Detected	2.8	Not Detected
Tetrachloroethene	0.52	18	3.5	120
2-Hexanone	2.6	Not Detected	10	Not Detected
Dibromochloromethane	0.52	Not Detected	4.4	Not Detected
1,2-Dibromoethane (EDB)	0.52	Not Detected	4.0	Not Detected
Chlorobenzene	0.52	Not Detected	2.4	Not Detected
Ethyl Benzene	0.52	Not Detected	2.2	Not Detected
m,p-Xylene	0.52	1.6	2.2	6.8
o-Xylene	0.52	0.57	2.2	2.5
Styrene	0.52	Not Detected	2.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-6

Lab ID#: 0903271R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z031720r1**	**Date of Collection: 3/9/09 4:25:00 PM**	
Dil. Factor:	**5.17**	**Date of Analysis: 3/18/09 02:17 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Bromoform	0.52	Not Detected	5.3	Not Detected
Cumene	0.52	2.1	2.5	10
1,1,2,2-Tetrachloroethane	0.52	Not Detected	3.5	Not Detected
1,3-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,4-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2-Dichlorobenzene	0.52	Not Detected	3.1	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	19	Not Detected
Methyl Acetate	2.6	Not Detected	7.8	Not Detected
Methylcyclohexane	2.6	Not Detected	10	Not Detected
1,2-Dibromo-3-chloropropane	2.6	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 (6.5-7)

Lab ID#: 0903307-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032426**	**Date of Collection: 3/11/09 9:37:00 AM**	
Dil. Factor:	**1.36**	**Date of Analysis: 3/25/09 03:07 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.67	0.67	3.3
Chloromethane	0.14	Not Detected	0.28	Not Detected
Vinyl Chloride	0.14	Not Detected	0.35	Not Detected
Bromomethane	0.14	0.44	0.53	1.7
Chloroethane	0.14	Not Detected	0.36	Not Detected
Freon 11	0.14	0.39	0.76	2.2
Freon 113	0.14	1.5	1.0	11
1,1-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Acetone	0.68	15	1.6	36
Carbon Disulfide	0.68	0.85	2.1	2.6
Methylene Chloride	0.27	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.49	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.55	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	3.5	0.40	10
cis-1,2-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Chloroform	0.14	Not Detected	0.66	Not Detected
1,1,1-Trichloroethane	0.14	0.52	0.74	2.8
Cyclohexane	0.14	Not Detected	0.47	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.86	Not Detected
Benzene	0.14	1.6	0.43	5.1
1,2-Dichloroethane	0.14	Not Detected	0.55	Not Detected
Trichloroethene	0.14	0.18	0.73	0.98
1,2-Dichloropropane	0.14	Not Detected	0.63	Not Detected
Bromodichloromethane	0.14	Not Detected	0.91	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.62	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.56	Not Detected
Toluene	0.14	0.99	0.51	3.7
trans-1,3-Dichloropropene	0.14	Not Detected	0.62	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.74	Not Detected
Tetrachloroethene	0.14	2.5	0.92	17
2-Hexanone	0.68	Not Detected	2.8	Not Detected
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.0	Not Detected
Chlorobenzene	0.14	Not Detected	0.63	Not Detected
Ethyl Benzene	0.14	Not Detected	0.59	Not Detected
m,p-Xylene	0.14	0.16	0.59	0.69
o-Xylene	0.14	Not Detected	0.59	Not Detected
Styrene	0.14	0.15	0.58	0.64

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 (6.5-7)

Lab ID#: 0903307-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032426**	**Date of Collection: 3/11/09 9:37:00 AM**	
Dil. Factor:	**1.36**	**Date of Analysis: 3/25/09 03:07 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.67	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.93	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected
1,2,4-Trichlorobenzene	0.68	Not Detected	5.0	Not Detected
Methyl Acetate	0.68	Not Detected	2.1	Not Detected
Methylcyclohexane	0.68	Not Detected	2.7	Not Detected
1,2-Dibromo-3-chloropropane	0.68	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	87	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 (6.5-7)

Lab ID#: 0903307-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032427**	**Date of Collection:**	**3/11/09 11:57:00 AM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**3/25/09 03:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.25	0.69	1.2	3.4
Chloromethane	0.25	Not Detected	0.51	Not Detected
Vinyl Chloride	0.25	Not Detected	0.63	Not Detected
Bromomethane	0.25	Not Detected	0.96	Not Detected
Chloroethane	0.25	Not Detected	0.65	Not Detected
Freon 11	0.25	0.44	1.4	2.4
Freon 113	0.25	23	1.9	180
1,1-Dichloroethene	0.25	0.47	0.98	1.9
Acetone	1.2	20	2.9	48
Carbon Disulfide	1.2	4.1	3.9	13
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.25	Not Detected	0.89	Not Detected
trans-1,2-Dichloroethene	0.25	Not Detected	0.98	Not Detected
1,1-Dichloroethane	0.25	0.49	1.0	2.0
2-Butanone (Methyl Ethyl Ketone)	0.25	3.6	0.73	11
cis-1,2-Dichloroethene	0.25	0.94	0.98	3.7
Chloroform	0.25	0.72	1.2	3.5
1,1,1-Trichloroethane	0.25	3.4	1.4	18
Cyclohexane	0.25	0.40	0.85	1.4
Carbon Tetrachloride	0.25	Not Detected	1.6	Not Detected
Benzene	0.25	3.3	0.79	10
1,2-Dichloroethane	0.25	Not Detected	1.0	Not Detected
Trichloroethene	0.25	4.8	1.3	26
1,2-Dichloropropane	0.25	Not Detected	1.1	Not Detected
Bromodichloromethane	0.25	Not Detected	1.7	Not Detected
cis-1,3-Dichloropropene	0.25	Not Detected	1.1	Not Detected
4-Methyl-2-pentanone	0.25	Not Detected	1.0	Not Detected
Toluene	0.25	2.0	0.93	7.6
trans-1,3-Dichloropropene	0.25	Not Detected	1.1	Not Detected
1,1,2-Trichloroethane	0.25	Not Detected	1.4	Not Detected
Tetrachloroethene	0.25	50	1.7	340
2-Hexanone	1.2	Not Detected	5.1	Not Detected
Dibromochloromethane	0.25	Not Detected	2.1	Not Detected
1,2-Dibromoethane (EDB)	0.25	Not Detected	1.9	Not Detected
Chlorobenzene	0.25	Not Detected	1.1	Not Detected
Ethyl Benzene	0.25	0.29	1.1	1.3
m,p-Xylene	0.25	0.62	1.1	2.7
o-Xylene	0.25	0.25	1.1	1.1
Styrene	0.25	0.27	1.0	1.1

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 (6.5-7)

Lab ID#: 0903307-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032427**	**Date of Collection: 3/11/09 11:57:00 AM**	
Dil. Factor:	**2.48**	**Date of Analysis: 3/25/09 03:51 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.25	Not Detected	2.6	Not Detected
Cumene	0.25	Not Detected	1.2	Not Detected
1,1,2,2-Tetrachloroethane	0.25	Not Detected	1.7	Not Detected
1,3-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,4-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,2-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected
1,2,4-Trichlorobenzene	1.2	Not Detected	9.2	Not Detected
Methyl Acetate	1.2	Not Detected	3.8	Not Detected
Methylcyclohexane	1.2	Not Detected	5.0	Not Detected
1,2-Dibromo-3-chloropropane	1.2	Not Detected	12	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 (6.5-7)

Lab ID#: 0903307-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032428**	**Date of Collection: 3/11/09 2:09:00 PM**	
Dil. Factor:	**14.6**	**Date of Analysis: 3/25/09 04:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.5	Not Detected	7.2	Not Detected
Chloromethane	1.5	Not Detected	3.0	Not Detected
Vinyl Chloride	1.5	Not Detected	3.7	Not Detected
Bromomethane	1.5	Not Detected	5.7	Not Detected
Chloroethane	1.5	Not Detected	3.8	Not Detected
Freon 11	1.5	Not Detected	8.2	Not Detected
Freon 113	1.5	Not Detected	11	Not Detected
1,1-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Acetone	7.3	Not Detected	17	Not Detected
Carbon Disulfide	7.3	Not Detected	23	Not Detected
Methylene Chloride	2.9	Not Detected	10	Not Detected
Methyl tert-butyl ether	1.5	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.5	Not Detected	5.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.5	Not Detected	4.3	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Chloroform	1.5	Not Detected	7.1	Not Detected
1,1,1-Trichloroethane	1.5	Not Detected	8.0	Not Detected
Cyclohexane	1.5	Not Detected	5.0	Not Detected
Carbon Tetrachloride	1.5	Not Detected	9.2	Not Detected
Benzene	1.5	Not Detected	4.7	Not Detected
1,2-Dichloroethane	1.5	Not Detected	5.9	Not Detected
Trichloroethene	1.5	Not Detected	7.8	Not Detected
1,2-Dichloropropane	1.5	Not Detected	6.7	Not Detected
Bromodichloromethane	1.5	Not Detected	9.8	Not Detected
cis-1,3-Dichloropropene	1.5	Not Detected	6.6	Not Detected
4-Methyl-2-pentanone	1.5	Not Detected	6.0	Not Detected
Toluene	1.5	Not Detected	5.5	Not Detected
trans-1,3-Dichloropropene	1.5	Not Detected	6.6	Not Detected
1,1,2-Trichloroethane	1.5	Not Detected	8.0	Not Detected
Tetrachloroethene	1.5	10	9.9	68
2-Hexanone	7.3	Not Detected	30	Not Detected
Dibromochloromethane	1.5	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.5	Not Detected	11	Not Detected
Chlorobenzene	1.5	Not Detected	6.7	Not Detected
Ethyl Benzene	1.5	Not Detected	6.3	Not Detected
m,p-Xylene	1.5	Not Detected	6.3	Not Detected
o-Xylene	1.5	Not Detected	6.3	Not Detected
Styrene	1.5	Not Detected	6.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 (6.5-7)

Lab ID#: 0903307-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032428**	**Date of Collection: 3/11/09 2:09:00 PM**	
Dil. Factor:	**14.6**	**Date of Analysis: 3/25/09 04:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	1.5	Not Detected	15	Not Detected
Cumene	1.5	Not Detected	7.2	Not Detected
1,1,2,2-Tetrachloroethane	1.5	Not Detected	10	Not Detected
1,3-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,4-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,2-Dichlorobenzene	1.5	Not Detected	8.8	Not Detected
1,2,4-Trichlorobenzene	7.3	Not Detected	54	Not Detected
Methyl Acetate	7.3	Not Detected	22	Not Detected
Methylcyclohexane	7.3	Not Detected	29	Not Detected
1,2-Dibromo-3-chloropropane	7.3	Not Detected	70	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	86	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 (6.5-7)

Lab ID#: 0903307-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032431**	**Date of Collection: 3/11/09 3:40:00 PM**	
Dil. Factor:	**3.87**	**Date of Analysis: 3/25/09 06:29 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.39	0.54	1.9	2.6
Chloromethane	0.39	Not Detected	0.80	Not Detected
Vinyl Chloride	0.39	Not Detected	0.99	Not Detected
Bromomethane	0.39	Not Detected	1.5	Not Detected
Chloroethane	0.39	Not Detected	1.0	Not Detected
Freon 11	0.39	0.52	2.2	2.9
Freon 113	0.39	Not Detected	3.0	Not Detected
1,1-Dichloroethene	0.39	Not Detected	1.5	Not Detected
Acetone	1.9	75	4.6	180
Carbon Disulfide	1.9	Not Detected	6.0	Not Detected
Methylene Chloride	0.77	Not Detected	2.7	Not Detected
Methyl tert-butyl ether	0.39	Not Detected	1.4	Not Detected
trans-1,2-Dichloroethene	0.39	Not Detected	1.5	Not Detected
1,1-Dichloroethane	0.39	Not Detected	1.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.39	17	1.1	51
cis-1,2-Dichloroethene	0.39	Not Detected	1.5	Not Detected
Chloroform	0.39	Not Detected	1.9	Not Detected
1,1,1-Trichloroethane	0.39	1.0	2.1	5.7
Cyclohexane	0.39	Not Detected	1.3	Not Detected
Carbon Tetrachloride	0.39	Not Detected	2.4	Not Detected
Benzene	0.39	3.2	1.2	10
1,2-Dichloroethane	0.39	Not Detected	1.6	Not Detected
Trichloroethene	0.39	Not Detected	2.1	Not Detected
1,2-Dichloropropane	0.39	Not Detected	1.8	Not Detected
Bromodichloromethane	0.39	Not Detected	2.6	Not Detected
cis-1,3-Dichloropropene	0.39	Not Detected	1.8	Not Detected
4-Methyl-2-pentanone	0.39	0.51	1.6	2.1
Toluene	0.39	2.4	1.4	9.1
trans-1,3-Dichloropropene	0.39	Not Detected	1.8	Not Detected
1,1,2-Trichloroethane	0.39	Not Detected	2.1	Not Detected
Tetrachloroethene	0.39	48	2.6	330
2-Hexanone	1.9	Not Detected	7.9	Not Detected
Dibromochloromethane	0.39	Not Detected	3.3	Not Detected
1,2-Dibromoethane (EDB)	0.39	Not Detected	3.0	Not Detected
Chlorobenzene	0.39	Not Detected	1.8	Not Detected
Ethyl Benzene	0.39	Not Detected	1.7	Not Detected
m,p-Xylene	0.39	0.45	1.7	1.9
o-Xylene	0.39	Not Detected	1.7	Not Detected
Styrene	0.39	0.59	1.6	2.5

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 (6.5-7)

Lab ID#: 0903307-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032431**	**Date of Collection: 3/11/09 3:40:00 PM**	
Dil. Factor:	**3.87**	**Date of Analysis: 3/25/09 06:29 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.39	Not Detected	4.0	Not Detected
Cumene	0.39	Not Detected	1.9	Not Detected
1,1,2,2-Tetrachloroethane	0.39	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,4-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,2-Dichlorobenzene	0.39	Not Detected	2.3	Not Detected
1,2,4-Trichlorobenzene	1.9	Not Detected	14	Not Detected
Methyl Acetate	1.9	Not Detected	5.9	Not Detected
Methylcyclohexane	1.9	Not Detected	7.8	Not Detected
1,2-Dibromo-3-chloropropane	1.9	Not Detected	19	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	86	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 (6.5-7)

Lab ID#: 0903364-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032513**	**Date of Collection:**	**3/12/09 9:08:00 AM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**3/25/09 09:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.35	0.77	1.7
Chloromethane	0.16	Not Detected	0.32	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	0.41	0.87	2.3
Freon 113	0.16	40	1.2	310
1,1-Dichloroethene	0.16	0.22	0.61	0.86
Acetone	0.78	14	1.8	33
Carbon Disulfide	0.78	1.5	2.4	4.6
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	3.6	0.46	11
cis-1,2-Dichloroethene	0.16	0.30	0.61	1.2
Chloroform	0.16	0.17	0.76	0.82
1,1,1-Trichloroethane	0.16	0.68	0.84	3.7
Cyclohexane	0.16	Not Detected	0.53	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
Benzene	0.16	1.4	0.50	4.6
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Trichloroethene	0.16	0.73	0.83	3.9
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.94	0.58	3.6
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	17	1.0	110
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	0.16	0.67	0.71
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 (6.5-7)

Lab ID#: 0903364-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032513**	**Date of Collection: 3/12/09 9:08:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 3/25/09 09:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Methyl Acetate	0.78	Not Detected	2.3	Not Detected
Methylcyclohexane	0.78	Not Detected	3.1	Not Detected
1,2-Dibromo-3-chloropropane	0.78	Not Detected	7.5	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1

Lab ID#: 0903364-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032514**	**Date of Collection:**	**3/12/09 4:57:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**3/25/09 10:08 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Chloromethane	0.17	0.42	0.35	0.86
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
Bromomethane	0.17	Not Detected	0.65	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
Freon 11	0.17	0.24	0.94	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	8.8	2.0	21
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.17	1.7	0.50	5.1
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	Not Detected	0.63	Not Detected
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1

Lab ID#: 0903364-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032514**	**Date of Collection: 3/12/09 4:57:00 PM**	
Dil. Factor:	**1.68**	**Date of Analysis: 3/25/09 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Methyl Acetate	0.84	Not Detected	2.5	Not Detected
Methylcyclohexane	0.84	Not Detected	3.4	Not Detected
1,2-Dibromo-3-chloropropane	0.84	Not Detected	8.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	107	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Rep031209

Lab ID#: 0903364-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032515**	**Date of Collection:**	**3/12/09 1/1/1990**
Dil. Factor:	**1.46**	**Date of Analysis:**	**3/25/09 10:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.30	0.72	1.5
Chloromethane	0.15	Not Detected	0.30	Not Detected
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	Not Detected	0.82	Not Detected
Freon 113	0.15	6.9	1.1	53
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	19	1.7	46
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	0.35	0.59	1.4
2-Butanone (Methyl Ethyl Ketone)	0.15	4.5	0.43	13
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	4.0	0.80	22
Cyclohexane	0.15	0.15	0.50	0.51
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
Benzene	0.15	0.52	0.47	1.7
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Trichloroethene	0.15	0.40	0.78	2.1
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	0.39	0.55	1.5
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	6.2	0.99	42
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	Not Detected	0.63	Not Detected
o-Xylene	0.15	Not Detected	0.63	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Rep031209

Lab ID#: 0903364-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032515**	**Date of Collection:**	**3/12/09 1/1/1990**
Dil. Factor:	**1.46**	**Date of Analysis:**	**3/25/09 10:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Methyl Acetate	0.73	Not Detected	2.2	Not Detected
Methylcyclohexane	0.73	Not Detected	2.9	Not Detected
1,2-Dibromo-3-chloropropane	0.73	Not Detected	7.0	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 (6.5-7)

Lab ID#: 0903364-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032516**	**Date of Collection:**	**3/12/09 10:47:00 AM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**3/25/09 11:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.28	0.70	1.4
Chloromethane	0.14	Not Detected	0.29	Not Detected
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.55	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.15	0.79	0.85
Freon 113	0.14	7.5	1.1	58
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	20	1.7	49
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	Not Detected	0.98	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	0.40	0.57	1.6
2-Butanone (Methyl Ethyl Ketone)	0.14	3.7	0.42	11
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.14	4.1	0.77	22
Cyclohexane	0.14	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
Benzene	0.14	0.49	0.45	1.6
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Trichloroethene	0.14	0.43	0.76	2.3
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.58	Not Detected
Toluene	0.14	0.39	0.53	1.5
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	6.0	0.96	41
2-Hexanone	0.70	Not Detected	2.9	Not Detected
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	Not Detected	0.61	Not Detected
m,p-Xylene	0.14	Not Detected	0.61	Not Detected
o-Xylene	0.14	Not Detected	0.61	Not Detected
Styrene	0.14	Not Detected	0.60	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 (6.5-7)

Lab ID#: 0903364-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032516**	**Date of Collection: 3/12/09 10:47:00 AM**	
Dil. Factor:	**1.41**	**Date of Analysis: 3/25/09 11:48 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Methyl Acetate	0.70	Not Detected	2.1	Not Detected
Methylcyclohexane	0.70	Not Detected	2.8	Not Detected
1,2-Dibromo-3-chloropropane	0.70	Not Detected	6.8	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 (6.5-7)

Lab ID#: 0903364-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032517**	**Date of Collection:**	**3/12/09 12:18:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**3/26/09 12:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.33	0.77	1.6
Chloromethane	0.16	Not Detected	0.32	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	12	0.87	69
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	7.6	1.8	18
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.16	1.5	0.63	6.2
2-Butanone (Methyl Ethyl Ketone)	0.16	1.5	0.46	4.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	48	0.84	260
Cyclohexane	0.16	1.7	0.53	5.8
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
Benzene	0.16	0.40	0.50	1.3
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Trichloroethene	0.16	0.27	0.83	1.4
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.32	0.58	1.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	12	1.0	82
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	Not Detected	0.67	Not Detected
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 (6.5-7)

Lab ID#: 0903364-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032517**	**Date of Collection: 3/12/09 12:18:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 3/26/09 12:28 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Methyl Acetate	0.78	Not Detected	2.3	Not Detected
Methylcyclohexane	0.78	Not Detected	3.1	Not Detected
1,2-Dibromo-3-chloropropane	0.78	Not Detected	7.5	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 (6.5-7)

Lab ID#: 0903364-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032518**	**Date of Collection: 3/12/09 2:10:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 3/26/09 01:04 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.81	2.0
Chloromethane	0.16	Not Detected	0.34	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Bromomethane	0.16	Not Detected	0.64	Not Detected
Chloroethane	0.16	Not Detected	0.43	Not Detected
Freon 11	0.16	8.1	0.92	45
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	20	1.9	47
Carbon Disulfide	0.82	1.3	2.6	4.1
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1-Dichloroethane	0.16	0.70	0.66	2.8
2-Butanone (Methyl Ethyl Ketone)	0.16	2.5	0.48	7.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	20	0.89	110
Cyclohexane	0.16	0.83	0.56	2.8
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
Benzene	0.16	0.73	0.52	2.3
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.64	0.62	2.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	5.4	1.1	36
2-Hexanone	0.82	Not Detected	3.4	Not Detected
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	0.20	0.71	0.88
o-Xylene	0.16	Not Detected	0.71	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 (6.5-7)

Lab ID#: 0903364-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032518**	**Date of Collection: 3/12/09 2:10:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 3/26/09 01:04 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Methyl Acetate	0.82	0.86	2.5	2.6
Methylcyclohexane	0.82	Not Detected	3.3	Not Detected
1,2-Dibromo-3-chloropropane	0.82	Not Detected	7.9	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 (4.5-5)

Lab ID#: 0903364-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032519**	**Date of Collection: 3/12/09 4:36:00 PM**	
Dil. Factor:	**3.22**	**Date of Analysis: 3/26/09 01:45 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.32	0.52	1.6	2.6
Chloromethane	0.32	Not Detected	0.66	Not Detected
Vinyl Chloride	0.32	Not Detected	0.82	Not Detected
Bromomethane	0.32	Not Detected	1.2	Not Detected
Chloroethane	0.32	Not Detected	0.85	Not Detected
Freon 11	0.32	Not Detected	1.8	Not Detected
Freon 113	0.32	19	2.5	150
1,1-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Acetone	1.6	20	3.8	46
Carbon Disulfide	1.6	2.1	5.0	6.5
Methylene Chloride	0.64	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.32	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.32	0.40	1.3	1.6
2-Butanone (Methyl Ethyl Ketone)	0.32	2.6	0.95	7.7
cis-1,2-Dichloroethene	0.32	2.7	1.3	11
Chloroform	0.32	0.65	1.6	3.2
1,1,1-Trichloroethane	0.32	2.0	1.8	11
Cyclohexane	0.32	Not Detected	1.1	Not Detected
Carbon Tetrachloride	0.32	Not Detected	2.0	Not Detected
Benzene	0.32	1.6	1.0	5.3
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
Trichloroethene	0.32	7.8	1.7	42
1,2-Dichloropropane	0.32	Not Detected	1.5	Not Detected
Bromodichloromethane	0.32	Not Detected	2.2	Not Detected
cis-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
4-Methyl-2-pentanone	0.32	Not Detected	1.3	Not Detected
Toluene	0.32	1.0	1.2	3.9
trans-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
1,1,2-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Tetrachloroethene	0.32	87	2.2	590
2-Hexanone	1.6	Not Detected	6.6	Not Detected
Dibromochloromethane	0.32	Not Detected	2.7	Not Detected
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
Chlorobenzene	0.32	Not Detected	1.5	Not Detected
Ethyl Benzene	0.32	Not Detected	1.4	Not Detected
m,p-Xylene	0.32	Not Detected	1.4	Not Detected
o-Xylene	0.32	Not Detected	1.4	Not Detected
Styrene	0.32	Not Detected	1.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 (4.5-5)

Lab ID#: 0903364-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**z032519**	**Date of Collection: 3/12/09 4:36:00 PM**	
Dil. Factor:	**3.22**	**Date of Analysis: 3/26/09 01:45 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.32	Not Detected	3.3	Not Detected
Cumene	0.32	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,4-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2,4-Trichlorobenzene	1.6	Not Detected	12	Not Detected
Methyl Acetate	1.6	Not Detected	4.9	Not Detected
Methylcyclohexane	1.6	Not Detected	6.5	Not Detected
1,2-Dibromo-3-chloropropane	1.6	Not Detected	16	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	106	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032409**	**Date of Collection:**	**3/16/09 10:00:00 AM**
Dil. Factor:	**12.6**	**Date of Analysis:**	**3/24/09 01:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.3	Not Detected	31	Not Detected
Chloromethane	25	Not Detected	52	Not Detected
Vinyl Chloride	6.3	Not Detected	16	Not Detected
Bromomethane	6.3	Not Detected	24	Not Detected
Chloroethane	6.3	Not Detected	17	Not Detected
Freon 11	6.3	Not Detected	35	Not Detected
Freon 113	6.3	160	48	1200
1,1-Dichloroethene	6.3	Not Detected	25	Not Detected
Acetone	25	120	60	290
Carbon Disulfide	6.3	Not Detected	20	Not Detected
Methylene Chloride	6.3	Not Detected	22	Not Detected
Methyl tert-butyl ether	6.3	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
1,1-Dichloroethane	6.3	19	26	78
2-Butanone (Methyl Ethyl Ketone)	6.3	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	6.3	Not Detected	25	Not Detected
Chloroform	6.3	Not Detected	31	Not Detected
1,1,1-Trichloroethane	6.3	620	34	3400
Cyclohexane	6.3	Not Detected	22	Not Detected
Carbon Tetrachloride	6.3	Not Detected	40	Not Detected
Benzene	6.3	Not Detected	20	Not Detected
1,2-Dichloroethane	6.3	Not Detected	25	Not Detected
Trichloroethene	6.3	110	34	580
1,2-Dichloropropane	6.3	Not Detected	29	Not Detected
Bromodichloromethane	6.3	Not Detected	42	Not Detected
cis-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
4-Methyl-2-pentanone	6.3	Not Detected	26	Not Detected
Toluene	6.3	Not Detected	24	Not Detected
trans-1,3-Dichloropropene	6.3	Not Detected	28	Not Detected
1,1,2-Trichloroethane	6.3	Not Detected	34	Not Detected
Tetrachloroethene	6.3	1300	43	8800
2-Hexanone	25	Not Detected	100	Not Detected
Dibromochloromethane	6.3	Not Detected	54	Not Detected
1,2-Dibromoethane (EDB)	6.3	Not Detected	48	Not Detected
Chlorobenzene	6.3	Not Detected	29	Not Detected
Ethyl Benzene	6.3	Not Detected	27	Not Detected
m,p-Xylene	6.3	Not Detected	27	Not Detected
o-Xylene	6.3	Not Detected	27	Not Detected
Styrene	6.3	Not Detected	27	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-4

Lab ID#: 0903438-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032409**	**Date of Collection: 3/16/09 10:00:00 AM**	
Dil. Factor:	**12.6**	**Date of Analysis: 3/24/09 01:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	6.3	Not Detected	65	Not Detected
Cumene	6.3	Not Detected	31	Not Detected
1,1,2,2-Tetrachloroethane	6.3	Not Detected	43	Not Detected
1,3-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,4-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2-Dichlorobenzene	6.3	Not Detected	38	Not Detected
1,2,4-Trichlorobenzene	25	Not Detected	190	Not Detected
Methyl Acetate	63	Not Detected	190	Not Detected
Methylcyclohexane	25	Not Detected	100	Not Detected
1,2-Dibromo-3-chloropropane	25	Not Detected	240	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	93	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection:**	**3/16/09 11:39:00 AM**
Dil. Factor:	**5.70**	**Date of Analysis:**	**3/23/09 09:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.57	0.58	2.8	2.9
Chloromethane	0.57	Not Detected	1.2	Not Detected
Vinyl Chloride	0.57	0.61	1.4	1.6
Bromomethane	0.57	Not Detected	2.2	Not Detected
Chloroethane	0.57	Not Detected	1.5	Not Detected
Freon 11	0.57	1.4	3.2	7.8
Freon 113	0.57	140	4.4	1100
1,1-Dichloroethene	0.57	Not Detected	2.3	Not Detected
Acetone	2.8	Not Detected	6.8	Not Detected
Carbon Disulfide	2.8	Not Detected	8.9	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	0.57	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
1,1-Dichloroethane	0.57	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.57	5.0	1.7	15
cis-1,2-Dichloroethene	0.57	Not Detected	2.2	Not Detected
Chloroform	0.57	0.61	2.8	3.0
1,1,1-Trichloroethane	0.57	4.6	3.1	25
Cyclohexane	0.57	Not Detected	2.0	Not Detected
Carbon Tetrachloride	0.57	Not Detected	3.6	Not Detected
Benzene	0.57	0.75	1.8	2.4
1,2-Dichloroethane	0.57	Not Detected	2.3	Not Detected
Trichloroethene	0.57	5.7	3.1	31
1,2-Dichloropropane	0.57	Not Detected	2.6	Not Detected
Bromodichloromethane	0.57	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
4-Methyl-2-pentanone	0.57	Not Detected	2.3	Not Detected
Toluene	0.57	Not Detected	2.1	Not Detected
trans-1,3-Dichloropropene	0.57	Not Detected	2.6	Not Detected
1,1,2-Trichloroethane	0.57	Not Detected	3.1	Not Detected
Tetrachloroethene	0.57	130	3.9	870
2-Hexanone	2.8	Not Detected	12	Not Detected
Dibromochloromethane	0.57	Not Detected	4.8	Not Detected
1,2-Dibromoethane (EDB)	0.57	Not Detected	4.4	Not Detected
Chlorobenzene	0.57	Not Detected	2.6	Not Detected
Ethyl Benzene	0.57	Not Detected	2.5	Not Detected
m,p-Xylene	0.57	Not Detected	2.5	Not Detected
o-Xylene	0.57	Not Detected	2.5	Not Detected
Styrene	0.57	Not Detected	2.4	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-5

Lab ID#: 0903438-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t032311**	**Date of Collection: 3/16/09 11:39:00 AM**	
Dil. Factor:	**5.70**	**Date of Analysis: 3/23/09 09:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.57	Not Detected	5.9	Not Detected
Cumene	0.57	Not Detected	2.8	Not Detected
1,1,2,2-Tetrachloroethane	0.57	Not Detected	3.9	Not Detected
1,3-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,4-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.57	Not Detected	3.4	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected
Methyl Acetate	2.8	Not Detected	8.6	Not Detected
Methylcyclohexane	2.8	Not Detected	11	Not Detected
1,2-Dibromo-3-chloropropane	2.8	Not Detected	28	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	87	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032410**	**Date of Collection:**	**3/16/09 2:15:00 PM**
Dil. Factor:	**63.2**	**Date of Analysis:**	**3/24/09 02:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	Not Detected	160	Not Detected
Chloromethane	130	Not Detected	260	Not Detected
Vinyl Chloride	32	Not Detected	81	Not Detected
Bromomethane	32	Not Detected	120	Not Detected
Chloroethane	32	Not Detected	83	Not Detected
Freon 11	32	Not Detected	180	Not Detected
Freon 113	32	Not Detected	240	Not Detected
1,1-Dichloroethene	32	37	120	140
Acetone	130	580	300	1400
Carbon Disulfide	32	Not Detected	98	Not Detected
Methylene Chloride	32	Not Detected	110	Not Detected
Methyl tert-butyl ether	32	Not Detected	110	Not Detected
trans-1,2-Dichloroethene	32	Not Detected	120	Not Detected
1,1-Dichloroethane	32	190	130	780
2-Butanone (Methyl Ethyl Ketone)	32	Not Detected	93	Not Detected
cis-1,2-Dichloroethene	32	160	120	620
Chloroform	32	Not Detected	150	Not Detected
1,1,1-Trichloroethane	32	9100	170	50000
Cyclohexane	32	Not Detected	110	Not Detected
Carbon Tetrachloride	32	Not Detected	200	Not Detected
Benzene	32	Not Detected	100	Not Detected
1,2-Dichloroethane	32	Not Detected	130	Not Detected
Trichloroethene	32	5900	170	32000
1,2-Dichloropropane	32	Not Detected	150	Not Detected
Bromodichloromethane	32	Not Detected	210	Not Detected
cis-1,3-Dichloropropene	32	Not Detected	140	Not Detected
4-Methyl-2-pentanone	32	Not Detected	130	Not Detected
Toluene	32	Not Detected	120	Not Detected
trans-1,3-Dichloropropene	32	Not Detected	140	Not Detected
1,1,2-Trichloroethane	32	Not Detected	170	Not Detected
Tetrachloroethene	32	7500	210	51000
2-Hexanone	130	Not Detected	520	Not Detected
Dibromochloromethane	32	Not Detected	270	Not Detected
1,2-Dibromoethane (EDB)	32	Not Detected	240	Not Detected
Chlorobenzene	32	Not Detected	140	Not Detected
Ethyl Benzene	32	Not Detected	140	Not Detected
m,p-Xylene	32	Not Detected	140	Not Detected
o-Xylene	32	Not Detected	140	Not Detected
Styrene	32	Not Detected	130	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-1

Lab ID#: 0903438-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032410**	**Date of Collection: 3/16/09 2:15:00 PM**	
Dil. Factor:	**63.2**	**Date of Analysis: 3/24/09 02:20 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	32	Not Detected	330	Not Detected
Cumene	32	Not Detected	160	Not Detected
1,1,2,2-Tetrachloroethane	32	Not Detected	220	Not Detected
1,3-Dichlorobenzene	32	Not Detected	190	Not Detected
1,4-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2,4-Trichlorobenzene	130	Not Detected	940	Not Detected
Methyl Acetate	320	Not Detected	960	Not Detected
Methylcyclohexane	130	Not Detected	510	Not Detected
1,2-Dibromo-3-chloropropane	130	Not Detected	1200	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	91	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection:**	**3/16/09 3:25:00 PM**
Dil. Factor:	**11.2**	**Date of Analysis:**	**3/25/09 06:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.6	Not Detected	28	Not Detected
Chloromethane	22	Not Detected	46	Not Detected
Vinyl Chloride	5.6	Not Detected	14	Not Detected
Bromomethane	5.6	Not Detected	22	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
Freon 11	5.6	Not Detected	31	Not Detected
Freon 113	5.6	300	43	2300
1,1-Dichloroethene	5.6	Not Detected	22	Not Detected
Acetone	22	61	53	140
Carbon Disulfide	5.6	Not Detected	17	Not Detected
Methylene Chloride	5.6	Not Detected	19	Not Detected
Methyl tert-butyl ether	5.6	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
1,1-Dichloroethane	5.6	15	23	61
2-Butanone (Methyl Ethyl Ketone)	5.6	Not Detected	16	Not Detected
cis-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
Chloroform	5.6	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.6	340	30	1900
Cyclohexane	5.6	Not Detected	19	Not Detected
Carbon Tetrachloride	5.6	Not Detected	35	Not Detected
Benzene	5.6	Not Detected	18	Not Detected
1,2-Dichloroethane	5.6	Not Detected	23	Not Detected
Trichloroethene	5.6	200	30	1000
1,2-Dichloropropane	5.6	Not Detected	26	Not Detected
Bromodichloromethane	5.6	Not Detected	38	Not Detected
cis-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
4-Methyl-2-pentanone	5.6	Not Detected	23	Not Detected
Toluene	5.6	Not Detected	21	Not Detected
trans-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.6	Not Detected	30	Not Detected
Tetrachloroethene	5.6	1400	38	9200
2-Hexanone	22	Not Detected	92	Not Detected
Dibromochloromethane	5.6	Not Detected	48	Not Detected
1,2-Dibromoethane (EDB)	5.6	Not Detected	43	Not Detected
Chlorobenzene	5.6	Not Detected	26	Not Detected
Ethyl Benzene	5.6	Not Detected	24	Not Detected
m,p-Xylene	5.6	Not Detected	24	Not Detected
o-Xylene	5.6	Not Detected	24	Not Detected
Styrene	5.6	Not Detected	24	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-3

Lab ID#: 0903438-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032509**	**Date of Collection: 3/16/09 3:25:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 3/25/09 06:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	5.6	Not Detected	58	Not Detected
Cumene	5.6	Not Detected	28	Not Detected
1,1,2,2-Tetrachloroethane	5.6	Not Detected	38	Not Detected
1,3-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,4-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2-Dichlorobenzene	5.6	Not Detected	34	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	170	Not Detected
Methyl Acetate	56	Not Detected	170	Not Detected
Methylcyclohexane	22	Not Detected	90	Not Detected
1,2-Dibromo-3-chloropropane	22	Not Detected	220	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032510**	**Date of Collection:**	**3/16/09 4:33:00 PM**
Dil. Factor:	**26.8**	**Date of Analysis:**	**3/25/09 08:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	66	Not Detected
Chloromethane	54	Not Detected	110	Not Detected
Vinyl Chloride	13	Not Detected	34	Not Detected
Bromomethane	13	Not Detected	52	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
Freon 11	13	Not Detected	75	Not Detected
Freon 113	13	430	100	3300
1,1-Dichloroethene	13	Not Detected	53	Not Detected
Acetone	54	340	130	820
Carbon Disulfide	13	Not Detected	42	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
Methyl tert-butyl ether	13	Not Detected	48	Not Detected
trans-1,2-Dichloroethene	13	Not Detected	53	Not Detected
1,1-Dichloroethane	13	33	54	130
2-Butanone (Methyl Ethyl Ketone)	13	Not Detected	40	Not Detected
cis-1,2-Dichloroethene	13	Not Detected	53	Not Detected
Chloroform	13	Not Detected	65	Not Detected
1,1,1-Trichloroethane	13	170	73	910
Cyclohexane	13	Not Detected	46	Not Detected
Carbon Tetrachloride	13	Not Detected	84	Not Detected
Benzene	13	Not Detected	43	Not Detected
1,2-Dichloroethane	13	Not Detected	54	Not Detected
Trichloroethene	13	64	72	340
1,2-Dichloropropane	13	Not Detected	62	Not Detected
Bromodichloromethane	13	Not Detected	90	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	61	Not Detected
4-Methyl-2-pentanone	13	Not Detected	55	Not Detected
Toluene	13	Not Detected	50	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	61	Not Detected
1,1,2-Trichloroethane	13	Not Detected	73	Not Detected
Tetrachloroethene	13	2800	91	19000
2-Hexanone	54	Not Detected	220	Not Detected
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	100	Not Detected
Chlorobenzene	13	Not Detected	62	Not Detected
Ethyl Benzene	13	Not Detected	58	Not Detected
m,p-Xylene	13	Not Detected	58	Not Detected
o-Xylene	13	Not Detected	58	Not Detected
Styrene	13	Not Detected	57	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SS-2

Lab ID#: 0903438-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**r032510**	**Date of Collection: 3/16/09 4:33:00 PM**	
Dil. Factor:	**26.8**	**Date of Analysis: 3/25/09 08:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	13	Not Detected	140	Not Detected
Cumene	13	Not Detected	66	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	92	Not Detected
1,3-Dichlorobenzene	13	Not Detected	80	Not Detected
1,4-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2,4-Trichlorobenzene	54	Not Detected	400	Not Detected
Methyl Acetate	130	Not Detected	410	Not Detected
Methylcyclohexane	54	Not Detected	220	Not Detected
1,2-Dibromo-3-chloropropane	54	Not Detected	520	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042914r1**	**Date of Collection:**	**4/20/09 1/1/1990**
Dil. Factor:	**33.6**	**Date of Analysis:**	**4/29/09 01:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.4	Not Detected	17	Not Detected
Chloromethane	3.4	Not Detected	6.9	Not Detected
Vinyl Chloride	3.4	Not Detected	8.6	Not Detected
Bromomethane	3.4	Not Detected	13	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
Freon 11	3.4	Not Detected	19	Not Detected
Freon 113	3.4	Not Detected	26	Not Detected
1,1-Dichloroethene	3.4	Not Detected	13	Not Detected
Acetone	17	9000 E	40	21000 E
Carbon Disulfide	17	Not Detected	52	Not Detected
Methylene Chloride	6.7	Not Detected	23	Not Detected
Methyl tert-butyl ether	3.4	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
1,1-Dichloroethane	3.4	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	9.9	Not Detected
cis-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Chloroform	3.4	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.4	Not Detected	18	Not Detected
Cyclohexane	3.4	Not Detected	12	Not Detected
Carbon Tetrachloride	3.4	Not Detected	21	Not Detected
Benzene	3.4	Not Detected	11	Not Detected
1,2-Dichloroethane	3.4	Not Detected	14	Not Detected
1,2-Dichloropropane	3.4	Not Detected	16	Not Detected
Bromodichloromethane	3.4	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.4	Not Detected	14	Not Detected
Toluene	3.4	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.4	Not Detected	18	Not Detected
Tetrachloroethene	3.4	Not Detected	23	Not Detected
2-Hexanone	17	Not Detected	69	Not Detected
Dibromochloromethane	3.4	Not Detected	29	Not Detected
1,2-Dibromoethane (EDB)	3.4	Not Detected	26	Not Detected
Chlorobenzene	3.4	Not Detected	15	Not Detected
Ethyl Benzene	3.4	Not Detected	14	Not Detected
m,p-Xylene	3.4	Not Detected	14	Not Detected
o-Xylene	3.4	Not Detected	14	Not Detected
Styrene	3.4	Not Detected	14	Not Detected
Bromoform	3.4	Not Detected	35	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042914r1**	**Date of Collection: 4/20/09 1/1/1990**	
Dil. Factor:	**33.6**	**Date of Analysis: 4/29/09 01:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	3.4	Not Detected	16	Not Detected
1,1,2,2-Tetrachloroethane	3.4	Not Detected	23	Not Detected
1,3-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	120	Not Detected
Methyl Acetate	17	Not Detected	51	Not Detected
Methylcyclohexane	17	Not Detected	67	Not Detected
1,2-Dibromo-3-chloropropane	17	Not Detected	160	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Rep042009

Lab ID#: 0904492R1-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042914sim**	**Date of Collection:**	**4/20/09 1/1/1990**
Dil. Factor:	**33.6**	**Date of Analysis:**	**4/29/09 01:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.67	Not Detected	3.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042915r1**	**Date of Collection:**	**4/20/09 4:29:00 PM**
Dil. Factor:	**17.5**	**Date of Analysis:**	**4/29/09 02:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.8	Not Detected	8.6	Not Detected
Chloromethane	1.8	Not Detected	3.6	Not Detected
Vinyl Chloride	1.8	Not Detected	4.5	Not Detected
Bromomethane	1.8	Not Detected	6.8	Not Detected
Chloroethane	1.8	Not Detected	4.6	Not Detected
Freon 11	1.8	Not Detected	9.8	Not Detected
Freon 113	1.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.8	Not Detected	6.9	Not Detected
Acetone	8.8	1800 E	21	4300 E
Carbon Disulfide	8.8	Not Detected	27	Not Detected
Methylene Chloride	3.5	Not Detected	12	Not Detected
Methyl tert-butyl ether	1.8	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	6.9	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.8	2.6	5.2	7.8
cis-1,2-Dichloroethene	1.8	Not Detected	6.9	Not Detected
Chloroform	1.8	Not Detected	8.5	Not Detected
1,1,1-Trichloroethane	1.8	Not Detected	9.5	Not Detected
Cyclohexane	1.8	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.8	Not Detected	11	Not Detected
Benzene	1.8	Not Detected	5.6	Not Detected
1,2-Dichloroethane	1.8	Not Detected	7.1	Not Detected
1,2-Dichloropropane	1.8	Not Detected	8.1	Not Detected
Bromodichloromethane	1.8	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	1.8	Not Detected	7.9	Not Detected
4-Methyl-2-pentanone	1.8	Not Detected	7.2	Not Detected
Toluene	1.8	Not Detected	6.6	Not Detected
trans-1,3-Dichloropropene	1.8	Not Detected	7.9	Not Detected
1,1,2-Trichloroethane	1.8	Not Detected	9.5	Not Detected
Tetrachloroethene	1.8	Not Detected	12	Not Detected
2-Hexanone	8.8	Not Detected	36	Not Detected
Dibromochloromethane	1.8	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.8	Not Detected	13	Not Detected
Chlorobenzene	1.8	Not Detected	8.0	Not Detected
Ethyl Benzene	1.8	Not Detected	7.6	Not Detected
m,p-Xylene	1.8	Not Detected	7.6	Not Detected
o-Xylene	1.8	Not Detected	7.6	Not Detected
Styrene	1.8	Not Detected	7.4	Not Detected
Bromoform	1.8	Not Detected	18	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042915r1**	**Date of Collection: 4/20/09 4:29:00 PM**	
Dil. Factor:	**17.5**	**Date of Analysis: 4/29/09 02:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.8	Not Detected	8.6	Not Detected
1,1,2,2-Tetrachloroethane	1.8	Not Detected	12	Not Detected
1,3-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,4-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,2-Dichlorobenzene	1.8	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	8.8	Not Detected	65	Not Detected
Methyl Acetate	8.8	Not Detected	26	Not Detected
Methylcyclohexane	8.8	Not Detected	35	Not Detected
1,2-Dibromo-3-chloropropane	8.8	Not Detected	84	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-7

Lab ID#: 0904492R1-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042915sim**	**Date of Collection: 4/20/09 4:29:00 PM**	
Dil. Factor:	**17.5**	**Date of Analysis: 4/29/09 02:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.35	Not Detected	1.9	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042916r1**	**Date of Collection:**	**4/20/09 5:09:00 PM**
Dil. Factor:	**35.8**	**Date of Analysis:**	**4/29/09 02:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.6	Not Detected	18	Not Detected
Chloromethane	3.6	Not Detected	7.4	Not Detected
Vinyl Chloride	3.6	Not Detected	9.2	Not Detected
Bromomethane	3.6	Not Detected	14	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
Freon 11	3.6	Not Detected	20	Not Detected
Freon 113	3.6	Not Detected	27	Not Detected
1,1-Dichloroethene	3.6	Not Detected	14	Not Detected
Acetone	18	8800 E	42	21000 E
Carbon Disulfide	18	Not Detected	56	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
Methyl tert-butyl ether	3.6	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
1,1-Dichloroethane	3.6	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
Chloroform	3.6	Not Detected	17	Not Detected
1,1,1-Trichloroethane	3.6	Not Detected	20	Not Detected
Cyclohexane	3.6	Not Detected	12	Not Detected
Carbon Tetrachloride	3.6	Not Detected	22	Not Detected
Benzene	3.6	Not Detected	11	Not Detected
1,2-Dichloroethane	3.6	Not Detected	14	Not Detected
1,2-Dichloropropane	3.6	Not Detected	16	Not Detected
Bromodichloromethane	3.6	Not Detected	24	Not Detected
cis-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
4-Methyl-2-pentanone	3.6	Not Detected	15	Not Detected
Toluene	3.6	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
1,1,2-Trichloroethane	3.6	Not Detected	20	Not Detected
Tetrachloroethene	3.6	Not Detected	24	Not Detected
2-Hexanone	18	Not Detected	73	Not Detected
Dibromochloromethane	3.6	Not Detected	30	Not Detected
1,2-Dibromoethane (EDB)	3.6	Not Detected	28	Not Detected
Chlorobenzene	3.6	Not Detected	16	Not Detected
Ethyl Benzene	3.6	Not Detected	16	Not Detected
m,p-Xylene	3.6	Not Detected	16	Not Detected
o-Xylene	3.6	Not Detected	16	Not Detected
Styrene	3.6	Not Detected	15	Not Detected
Bromoform	3.6	Not Detected	37	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042916r1**	**Date of Collection: 4/20/09 5:09:00 PM**	
Dil. Factor:	**35.8**	**Date of Analysis: 4/29/09 02:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	3.6	Not Detected	18	Not Detected
1,1,2,2-Tetrachloroethane	3.6	Not Detected	24	Not Detected
1,3-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,4-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,2-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,2,4-Trichlorobenzene	18	Not Detected	130	Not Detected
Methyl Acetate	18	Not Detected	54	Not Detected
Methylcyclohexane	18	Not Detected	72	Not Detected
1,2-Dibromo-3-chloropropane	18	Not Detected	170	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-1

Lab ID#: 0904492R1-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042916sim**	**Date of Collection: 4/20/09 5:09:00 PM**	
Dil. Factor:	**35.8**	**Date of Analysis: 4/29/09 02:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.72	Not Detected	3.8	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042917r1**	**Date of Collection:**	**4/20/09 4:13:00 PM**
Dil. Factor:	**10.9**	**Date of Analysis:**	**4/29/09 03:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	2.6	6.1	14
Freon 113	1.1	Not Detected	8.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Acetone	5.4	1400 E	13	3300 E
Carbon Disulfide	5.4	Not Detected	17	Not Detected
Methylene Chloride	2.2	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.2	3.2	3.6
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Cyclohexane	1.1	6.5	3.8	22
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	1.2	3.5	3.8
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
Bromodichloromethane	1.1	Not Detected	7.3	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	Not Detected	7.4	Not Detected
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	1.2	4.7	5.0
o-Xylene	1.1	Not Detected	4.7	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042917r1**	**Date of Collection: 4/20/09 4:13:00 PM**	
Dil. Factor:	**10.9**	**Date of Analysis: 4/29/09 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.4	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected
Methyl Acetate	5.4	Not Detected	16	Not Detected
Methylcyclohexane	5.4	Not Detected	22	Not Detected
1,2-Dibromo-3-chloropropane	5.4	Not Detected	53	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-5

Lab ID#: 0904492R1-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042917sim**	**Date of Collection: 4/20/09 4:13:00 PM**	
Dil. Factor:	**10.9**	**Date of Analysis: 4/29/09 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.22	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-3

Lab ID#: 0904492R1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042918r1**	**Date of Collection:**	**4/20/09 4:42:00 PM**
Dil. Factor:	**3.22**	**Date of Analysis:**	**4/29/09 03:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.32	0.54	1.6	2.7
Chloromethane	0.32	0.68	0.66	1.4
Vinyl Chloride	0.32	Not Detected	0.82	Not Detected
Bromomethane	0.32	Not Detected	1.2	Not Detected
Chloroethane	0.32	Not Detected	0.85	Not Detected
Freon 11	0.32	0.62	1.8	3.4
Freon 113	0.32	Not Detected	2.5	Not Detected
1,1-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Acetone	1.6	390 E	3.8	920 E
Carbon Disulfide	1.6	Not Detected	5.0	Not Detected
Methylene Chloride	0.64	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.32	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.32	Not Detected	1.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.32	0.65	0.95	1.9
cis-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Chloroform	0.32	Not Detected	1.6	Not Detected
1,1,1-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Cyclohexane	0.32	0.88	1.1	3.0
Carbon Tetrachloride	0.32	Not Detected	2.0	Not Detected
Benzene	0.32	0.41	1.0	1.3
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
Trichloroethene	0.32	Not Detected	1.7	Not Detected
1,2-Dichloropropane	0.32	Not Detected	1.5	Not Detected
Bromodichloromethane	0.32	Not Detected	2.2	Not Detected
cis-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
4-Methyl-2-pentanone	0.32	Not Detected	1.3	Not Detected
Toluene	0.32	0.46	1.2	1.7
trans-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
1,1,2-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Tetrachloroethene	0.32	Not Detected	2.2	Not Detected
2-Hexanone	1.6	Not Detected	6.6	Not Detected
Dibromochloromethane	0.32	Not Detected	2.7	Not Detected
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
Chlorobenzene	0.32	Not Detected	1.5	Not Detected
Ethyl Benzene	0.32	Not Detected	1.4	Not Detected
m,p-Xylene	0.32	0.60	1.4	2.6
o-Xylene	0.32	Not Detected	1.4	Not Detected
Styrene	0.32	Not Detected	1.4	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-3

Lab ID#: 0904492R1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042918r1**	**Date of Collection: 4/20/09 4:42:00 PM**	
Dil. Factor:	**3.22**	**Date of Analysis: 4/29/09 03:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.32	Not Detected	3.3	Not Detected
Cumene	0.32	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,4-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2-Dichlorobenzene	0.32	Not Detected	1.9	Not Detected
1,2,4-Trichlorobenzene	1.6	Not Detected	12	Not Detected
Methyl Acetate	1.6	Not Detected	4.9	Not Detected
Methylcyclohexane	1.6	Not Detected	6.5	Not Detected
1,2-Dibromo-3-chloropropane	1.6	Not Detected	16	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-2

Lab ID#: 0904492R1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042919r1**	**Date of Collection:**	**4/20/09 4:19:00 PM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**4/29/09 04:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.23	0.45	1.2	2.2
Chloromethane	0.23	0.58	0.48	1.2
Vinyl Chloride	0.23	Not Detected	0.60	Not Detected
Bromomethane	0.23	Not Detected	0.91	Not Detected
Chloroethane	0.23	Not Detected	0.62	Not Detected
Freon 11	0.23	0.58	1.3	3.3
Freon 113	0.23	Not Detected	1.8	Not Detected
1,1-Dichloroethene	0.23	Not Detected	0.93	Not Detected
Acetone	1.2	280 E	2.8	660 E
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
Methylene Chloride	0.47	Not Detected	1.6	Not Detected
Methyl tert-butyl ether	0.23	Not Detected	0.84	Not Detected
trans-1,2-Dichloroethene	0.23	Not Detected	0.93	Not Detected
1,1-Dichloroethane	0.23	Not Detected	0.95	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.23	0.55	0.69	1.6
cis-1,2-Dichloroethene	0.23	Not Detected	0.93	Not Detected
Chloroform	0.23	Not Detected	1.1	Not Detected
1,1,1-Trichloroethane	0.23	Not Detected	1.3	Not Detected
Cyclohexane	0.23	0.80	0.80	2.8
Carbon Tetrachloride	0.23	Not Detected	1.5	Not Detected
Benzene	0.23	0.30	0.75	0.94
1,2-Dichloroethane	0.23	Not Detected	0.95	Not Detected
Trichloroethene	0.23	Not Detected	1.2	Not Detected
1,2-Dichloropropane	0.23	Not Detected	1.1	Not Detected
Bromodichloromethane	0.23	Not Detected	1.6	Not Detected
cis-1,3-Dichloropropene	0.23	Not Detected	1.1	Not Detected
4-Methyl-2-pentanone	0.23	Not Detected	0.96	Not Detected
Toluene	0.23	0.40	0.88	1.5
trans-1,3-Dichloropropene	0.23	Not Detected	1.1	Not Detected
1,1,2-Trichloroethane	0.23	Not Detected	1.3	Not Detected
Tetrachloroethene	0.23	Not Detected	1.6	Not Detected
2-Hexanone	1.2	Not Detected	4.8	Not Detected
Dibromochloromethane	0.23	Not Detected	2.0	Not Detected
1,2-Dibromoethane (EDB)	0.23	Not Detected	1.8	Not Detected
Chlorobenzene	0.23	Not Detected	1.1	Not Detected
Ethyl Benzene	0.23	Not Detected	1.0	Not Detected
m,p-Xylene	0.23	0.40	1.0	1.7
o-Xylene	0.23	Not Detected	1.0	Not Detected
Styrene	0.23	Not Detected	1.0	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-2

Lab ID#: 0904492R1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042919r1**	**Date of Collection: 4/20/09 4:19:00 PM**	
Dil. Factor:	**2.34**	**Date of Analysis: 4/29/09 04:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.23	Not Detected	2.4	Not Detected
Cumene	0.23	Not Detected	1.2	Not Detected
1,1,2,2-Tetrachloroethane	0.23	Not Detected	1.6	Not Detected
1,3-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,4-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,2-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,2,4-Trichlorobenzene	1.2	Not Detected	8.7	Not Detected
Methyl Acetate	1.2	Not Detected	3.5	Not Detected
Methylcyclohexane	1.2	Not Detected	4.7	Not Detected
1,2-Dibromo-3-chloropropane	1.2	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042920r1**	**Date of Collection:**	**4/20/09 4:25:00 PM**
Dil. Factor:	**10.7**	**Date of Analysis:**	**4/29/09 04:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	5.4	1500 E	13	3500 E
Carbon Disulfide	5.4	Not Detected	17	Not Detected
Methylene Chloride	2.1	Not Detected	7.4	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	3.5	3.2	10
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	1.2	4.6	5.1
o-Xylene	1.1	Not Detected	4.6	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042920r1**	**Date of Collection: 4/20/09 4:25:00 PM**	
Dil. Factor:	**10.7**	**Date of Analysis: 4/29/09 04:54 PM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected
Methyl Acetate	5.4	Not Detected	16	Not Detected
Methylcyclohexane	5.4	Not Detected	21	Not Detected
1,2-Dibromo-3-chloropropane	5.4	Not Detected	52	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-8

Lab ID#: 0904492R1-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042920sim**	**Date of Collection: 4/20/09 4:25:00 PM**	
Dil. Factor:	**10.7**	**Date of Analysis: 4/29/09 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.21	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042921r1**	**Date of Collection:**	**4/20/09 4:34:00 PM**
Dil. Factor:	**11.4**	**Date of Analysis:**	**4/29/09 05:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Chloromethane	1.1	Not Detected	2.4	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.4	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	2.8	6.4	16
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	5.7	1400 E	14	3400 E
Carbon Disulfide	5.7	Not Detected	18	Not Detected
Methylene Chloride	2.3	Not Detected	7.9	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.7	3.4	4.9
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Cyclohexane	1.1	1.8	3.9	6.3
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
2-Hexanone	5.7	Not Detected	23	Not Detected
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	1.3	5.0	5.7
o-Xylene	1.1	Not Detected	5.0	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042921r1**	**Date of Collection: 4/20/09 4:34:00 PM**	
Dil. Factor:	**11.4**	**Date of Analysis: 4/29/09 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected	42	Not Detected
Methyl Acetate	5.7	Not Detected	17	Not Detected
Methylcyclohexane	5.7	Not Detected	23	Not Detected
1,2-Dibromo-3-chloropropane	5.7	Not Detected	55	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-4

Lab ID#: 0904492R1-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042921sim**	**Date of Collection: 4/20/09 4:34:00 PM**	
Dil. Factor:	**11.4**	**Date of Analysis: 4/29/09 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.23	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042922r1**	**Date of Collection:**	**4/20/09 4:11:00 PM**
Dil. Factor:	**11.2**	**Date of Analysis:**	**4/29/09 05:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Chloromethane	1.1	Not Detected	2.3	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	1.9	6.3	10
Freon 113	1.1	Not Detected	8.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	5.6	1700 E	13	4100 E
Carbon Disulfide	5.6	Not Detected	17	Not Detected
Methylene Chloride	2.2	Not Detected	7.8	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	1.8	3.6	5.9
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
2-Hexanone	5.6	Not Detected	23	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042922r1**	**Date of Collection: 4/20/09 4:11:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 4/29/09 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.1	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	1.2	6.7	7.5
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	5.6	Not Detected	42	Not Detected
Methyl Acetate	5.6	Not Detected	17	Not Detected
Methylcyclohexane	5.6	Not Detected	22	Not Detected
1,2-Dibromo-3-chloropropane	5.6	Not Detected	54	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-6

Lab ID#: 0904492R1-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**s042922sim**	**Date of Collection: 4/20/09 4:11:00 PM**	
Dil. Factor:	**11.2**	**Date of Analysis: 4/29/09 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.22	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-9

Lab ID#: 0904492R1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042923r1**	**Date of Collection: 4/21/09 6:00:00 PM**	
Dil. Factor:	**1.75**	**Date of Analysis: 4/29/09 07:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.45	0.86	2.2
Chloromethane	0.18	1.7	0.36	3.4
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	0.18	0.68	0.68
Chloroethane	0.18	0.22	0.46	0.57
Freon 11	0.18	2.7	0.98	15
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	270 E	2.1	630 E
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.51	1.2	1.8
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.18	1.6	0.52	4.7
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
Benzene	0.18	0.52	0.56	1.7
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	2.0	0.72	8.0
Toluene	0.18	1.4	0.66	5.4
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.27	0.76	1.2
m,p-Xylene	0.18	0.77	0.76	3.4
o-Xylene	0.18	0.26	0.76	1.1
Styrene	0.18	Not Detected	0.74	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: IA-9

Lab ID#: 0904492R1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**s042923r1**	**Date of Collection: 4/21/09 6:00:00 PM**	
Dil. Factor:	**1.75**	**Date of Analysis: 4/29/09 07:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	1.9	1.0	12
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Methyl Acetate	0.88	Not Detected	2.6	Not Detected
Methylcyclohexane	0.88	Not Detected	3.5	Not Detected
1,2-Dibromo-3-chloropropane	0.88	Not Detected	8.4	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

ARCADIS

Appendix M

Human Health Exposure Assessment

ARCADIS
Infrastructure, environment, buildings

Imagine the result

Curtiss-Wright Flow Control Corporation, Target Rock Division

Appendix M

Human Health Exposure Assessment

Target Rock Site
1966E Broadhollow Road
East Farmingdale, New York
NYSDEC Site Number 1-52-119

October 28, 2009

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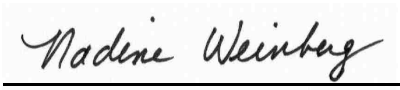

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Appendix M
Human Health Exposure Assessment

Target Rock Site
1966E Broadhollow Road
East Farmingdale, New York.
NYSDEC Site # 1-52-119

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Acronyms and Abbreviations

COPC	constituent of potential concern
DCA	dichloroethane
DCE	dichloroethene
FS	Feasibility Study
ft bls	feet below land surface
HHEA	Human Health Exposure Assessment
HVAC	heating, ventilation, and air conditioning
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
mg/kg	milligrams per kilogram
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
Order	Order On Consent
PCE	tetrachloroethene
RI	Remedial Investigation
SCGs	standards, criteria, and guidance
SCO	Soil Cleanup Objective
Target Rock	Curtiss-Wright Flow Control Corporation, Target Rock Division

TCA	trichloroethane
TCE	trichloroethene
UST	underground storage tank
VOC	volatile organic compound

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Appendix M
Human Health
Exposure Assessment

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1. Introduction

ARCADIS has prepared this qualitative human health exposure assessment (HHEA) report (HHEA Report) on behalf of Curtiss-Wright Flow Control Corporation, Target Rock Division (Target Rock). This HHEA Report is being submitted pursuant to Section II of the Order On Consent (Order) Index # W1-1031-04-10 that was executed by the New York State Department of Environmental Conservation (NYSDEC) and Target Rock, effective August 10, 2008. The Order required that a Remedial Investigation/Feasibility Study (RI/FS) be conducted for the Target Rock Site (referred to in this RI Report as the Site). The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 1-52-119 with a Classification 2.

The HHEA describes the potential for human exposure to Site-related constituents assuming no further remedial actions are conducted (i.e., no action alternative). The HHEA was conducted consistent with the NYSDEC guidance as presented in *Draft DER-10 Technical Guidance for Site Investigation and Remediation* (NYSDEC 2002).

The HHEA used information regarding current and foreseeable future land uses and available Site data to characterize the environmental setting of the Site, identify constituents of potential concern (COPCs), identify potentially complete exposure pathways, and evaluate the potential for exposure of human receptors to Site-related COPCs assuming no further remedial actions are conducted. The results of this qualitative HHEA will be used, in part, to help evaluate the potential need for future remedial actions at the Site.

2. Site Characterization

Section 1.1.1 (Site Description) of the RI Report provides a description of the Site. Section 1.1.2 (Site History) of the RI Report summarizes known past activities conducted at the Site. Target Rock began manufacturing operations at the Site in 1982 and operations have been ongoing to the present.

Current site features and structures are described in Section 1 and shown on Figure 2 of the RI Report.

3. Identification of Constituents of Potential Concern

The primary objectives of the COPC identification process were to describe the occurrence of constituents detected in the media of interest and to identify COPCs. The following subsections briefly discuss the analytical data for each medium (i.e., soil, soil vapor, groundwater, and indoor air) and the comparison of these data to standards, criteria, and guidance (SCGs) to identify COPCs. Section 5 of the RI Report (Nature and Extent of Constituents in Media) presents the discussion of the distribution of Site-related constituents in the various media. In contrast to Section 5 of the RI Report, the HHEA only evaluates on-Site media that is accessible to human receptors. Data from previous investigation and remediation activities conducted at the Site prior to the RI are not included in the HHEA because these data are not representative of current Site conditions.

3.1 Media of Interest

The environmental media of interest include soil (0 to 15 feet below land surface [ft bls]), exterior soil vapor, sub-slab soil vapor, groundwater, and indoor air. Soil at depths deeper than 15 ft bls was not considered in this HHEA as it was assumed that any future intrusive activities (e.g., Site maintenance or upgrade activities) will be limited to depths of 15 ft bls or less. In addition, the water table has been encountered between 10 and 15 ft bls during investigative activities; therefore, soil at depths deeper than 15 ft bls is below the current and historical water table.

Data used in this HHEA were collected during the RI field sampling activities conducted in March and April 2009. All samples were analyzed for volatile organic compounds (VOCs) and the data were determined to be acceptable and useable except for the data associated with one exterior soil vapor sample, SV-4 (6.5-7). As discussed in the RI Report (Section 5.2), the final vacuum (i.e., receipt at lab vacuum) of the SV-4 SUMMA® canister was less than 1 inch of mercury (Hg). Based on this receipt vacuum reading, compounds that were not detected above the laboratory reporting limit were qualified as unusable (“R” qualifier). This sample was not used for the HHEA. When duplicate analytical results were reported for a sample, the highest detected concentration was used for that sample.

3.2 Selection of Constituents of Potential Concern

COPCs were identified as those Site-related constituents present in soil, soil vapor, groundwater, or indoor air above SCGs. Potential human receptors were considered

in the process of identifying the most relevant and applicable criteria. Since the Site is currently an industrial facility and it is unlikely that Site use will change to residential in the future, the 6 NYCRR Part 375 Industrial Use Soil Cleanup Objectives (SCOs) were used to identify COPCs in soil (NYSDEC 2006). No SCGs currently exist for exterior soil vapor; therefore, none are presented in this HHEA. The SCGs for sub-slab soil vapor are based on the decision matrices in the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (NYSDOH 2006). In addition to the constituents presented in NYSDOH (2006), Matrix 1 has been modified to add vinyl chloride (VC) and Matrix 2 has been modified to add cis-1,2-dichloroethene (cis-1,2-DCE), and 1,1-dichloroethene (1,1-DCE) (NYSDOH 2007). The SCGs for groundwater are based on the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Guidance Values (NYSDEC 1998). The SCGs for indoor air are based on the indoor air guideline values in the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (NYSDOH 2006).

The following subsections briefly discuss the analytical data for each medium and the comparison of these data to SCGs to identify the COPCs. An SCG exceedance only indicates that remediation or other actions to limit exposure may be needed. An SCG exceedance does not indicate that a potential risk is present under either current or future conditions.

3.2.1 Soil

Soil samples collected from a depth of 0 to 15 ft bls during the RI were evaluated for the HHEA. A summary of the constituents detected in soil, their frequency of detection, range of detection, screening levels, and COPC status is provided in Table 1. As shown on Table 1, only PCE and toluene were detected and neither constituent was detected at concentrations above Industrial SCOs. Therefore, no COPCs were identified for soil.

3.2.2 Exterior Soil Vapor

Soil vapor samples collected from temporary exterior soil vapor points were considered exterior soil vapor samples for the purposes of the HHEA process. These samples were collected from depths ranging from 5 to 7 ft bls. A summary of the constituents detected in exterior soil vapor, their frequency of detection, and range of detection is provided in Table 2. The constituents that were detected are listed below:

Acetone	1,1-DCE	Styrene
Benzene	cis-1,2-DCE	Tetrachloroethene (PCE)
Bromomethane	Ethylbenzene	Toluene
2-Butanone	Freon 11	1,1,1-Trichloroethane (1,1,1-TCA)
Carbon Disulfide	Freon 12	Trichloroethene (TCE)
Chloroform	Freon 113	m,p-Xylene
Cyclohexane	Methyl Acetate	o-Xylene
1,1-Dichloroethane (1,1-DCA)	Methyl Isobutyl Ketone	

Although 23 constituents were detected in the exterior soil vapor samples, SCGs are not available to evaluate these results. Therefore, no COPCs were identified for exterior soil vapor.

3.2.3 Sub-Slab Soil Vapor

Sub-slab soil vapor samples were collected from temporary sub-slab soil vapor points that were advanced to a total depth of approximately 2 inches below the bottom of the floor slab of the two on-site buildings, as discussed in the RI Report. As discussed in Section 3.2, the sub-slab soil vapor data were evaluated using the NYSDOH (2006) decision matrices, as modified in 2007 (NYSDOH 2007). A summary of the constituents detected in sub-slab soil vapor, their frequency of detection, range of detection, screening levels, and COPC status is provided in Table 3. The following COPCs were identified in sub-slab soil vapor at the Site based on exceedance of SCGs: PCE, 1,1,1-TCA, and TCE.

3.2.4 Groundwater

Groundwater samples were collected from temporary and permanent monitoring wells as discussed in the RI Report. There are no groundwater supply wells located at the Site. Municipal water is provided for potable and industrial use at the Site and the nearby area. The groundwater data were compared to the TOGS 1.1.1 Ambient Water

Quality Standards and Guidance Values (NYSDEC 1998). A summary of the constituents detected in groundwater, their frequency of detection, range of detection, screening levels, and COPC status is provided in Table 4. Of the fourteen (14) VOCs detected in groundwater, only seven (7) were detected above SCGs and are considered COPCs for the purposes of this HHEA. The following COPCs were identified in groundwater:

1,1-DCA	PCE	Total Xylenes
Ethylbenzene	Toluene	
Freon 113	1,1,1-TCA	

3.2.5 Indoor Air

Indoor air samples were collected from within the two on-site buildings as discussed in the RI Report. The indoor air data were compared to the indoor air guideline values in the NYSDOH (2006) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. A summary of the constituents detected in indoor air, their frequency of detection, range of detection, screening levels, and COPC status is provided in Table 5. As indicated in Table 5, PCE and TCE were not detected and methylene chloride was detected in one indoor air sample at a concentration below its indoor air guideline. In addition to this comparison, the indoor air data were also compared to the indoor air concentrations in the NYSDOH (2006) decision matrices. None of the seven VOCs listed in the NYSDOH matrices (carbon tetrachloride, 1,1-DCE, cis-1,2-DCE, PCE, 1,1,1-TCA, TCE, or VC were detected in the indoor air samples. Based on these results, no COPCs were identified for indoor air.

3.3 Fate and Transport Processes

After a constituent is released to the environment, it may be transported, transformed physically, chemically, or biologically, or accumulated in one or more media. These processes were also considered in this HHEA when evaluating the potential for human health exposure to COPCs. Section 6 of the RI Report provides a discussion of COPCs (based on the RI data and objectives) as well as a discussion of relevant fate and transport processes.

4. Exposure Assessment

Exposure assessment is the process of measuring or estimating the intensity, frequency, and duration of human exposure to substances present in the environment. This exposure assessment included the characterization of exposure scenarios, identification of potentially exposed individuals, and analysis of exposure pathways. This information was used to qualitatively estimate exposure under current and reasonably foreseeable future conditions.

4.1 Identification of Exposure Pathways and Scenarios

The initial step in evaluating potential human exposure was the identification of potentially complete exposure pathways which must, as per regulatory guidance (NYSDEC 2002), contain: 1) a constituent source, 2) constituent release and transport mechanisms, 3) a point of exposure, 4) a route of exposure, and, 5) a receptor population. Exposure pathways without all five of these elements were considered incomplete and would not require further evaluation (NYSDEC 2002). Potential receptors and associated exposure pathways are discussed below.

Potential receptors considered by this HHEA are limited given the industrial nature of the Site. As described in the RI Report, the Site is used to manufacture valves that are used primarily for nuclear power applications. Under these conditions, potential receptors will be limited to Site workers, construction workers, utility workers, and off-site residents under both current and future conditions. Each of these receptor groups is discussed below, including the media that receptors were most likely to come into contact with and the routes that were most likely to result in a human health exposure.

4.1.1 Site Workers

Site workers were defined as those employees who could work in offices or other building spaces (e.g., manufacturing areas) at the Site. Site workers would not be expected to engage in any outdoor activities that would involve digging or other maintenance activities. Outside activities would be limited to walking on-Site or eating meals outside.

The Site is currently leased by Target Rock and used to manufacture valves that are used primarily for nuclear power applications. The Site is secured by a perimeter fence and automatic gate. The Site contains two manufacturing buildings (east building and west building), which have manufacturing areas, offices, shipping and receiving, and

valve testing areas. Most of the Site not occupied by buildings is paved and used for parking. Municipal water is supplied for potable and industrial use at the Site. Therefore, Site workers are not currently exposed to soil or groundwater and are not expected to be exposed in the future. COPCs were identified for sub-slab soil vapor (see Section 3.2.3 of this HHEA Report); however, migration into the buildings is not occurring under current conditions as evidenced by indoor air sample results, which indicate that sub-slab soil vapor COPCs have not been detected in the indoor air samples. Based on this information, the vapor intrusion pathway is considered incomplete under current conditions. Future exposures are also considered incomplete under current conditions.

4.1.2 Construction Workers

Construction workers were defined as workers engaged in short-term excavation activities (i.e., less than 1 year) up to a depth of approximately 15 ft bls. Construction workers may be exposed to surface and subsurface soil at the Site during future intrusive activities. However, the analytical data for the soil samples indicate that the concentrations of all constituents are below SCGs. In the absence of COPCs, the soil exposure pathway is incomplete. The depth to groundwater at the Site is approximately 10 ft bls. Under these conditions, construction workers are not expected to be exposed to groundwater during future intrusive activities at the Site. All current buildings are slab on grade and all future buildings are also expected to be constructed in the same manner. Therefore, the groundwater exposure pathway is incomplete under current conditions and will remain incomplete in the future for the construction worker.

4.1.3 Utility workers

Utility workers were defined as workers engaged in short-term excavation activities to service underground utility pipes. Under current and future conditions, utility workers repairing or servicing equipment at the Site could have limited contact with Site-related constituents in surface and subsurface soils. However, the analytical data for soil samples indicate that the concentrations of all constituents are below SCGs. In the absence of COPCs, the soil exposure pathway is incomplete. It is not likely that utility work will require excavation or intrusive activities to the depth of groundwater at the Site (approximately 10 ft bls). Therefore, the groundwater exposure pathway is incomplete under current conditions and will remain incomplete in the future for the utility worker.

4.1.4 Off-Site Residents

Off-site residents are children, adolescents, and adults who currently live or work in homes or buildings located adjacent to or near the Site. One groundwater sample collected near the southern perimeter/property boundary of the Site had a reported concentration for one Site-related constituent (Freon 113) above its SCG. Groundwater on-Site generally flows in a southerly direction. All nearby residents use municipal water for potable purposes. As a result, the groundwater pathway is incomplete under current conditions and will remain incomplete in the future for off-site residents.

Off-site migration of soil vapor is also not considered to be a complete exposure pathway for nearby residents. Although residential structures are located approximately 100 feet from the southern and western perimeters/property boundaries, no COPCs were identified in exterior soil vapor (see Section 3.2.2 of this HHEA Report).

4.2 Qualitative Assessment of Potentially Complete Pathways

The HHEA did not identify any complete pathways under current or future land use scenarios. All soil and groundwater exposure pathways are considered incomplete either because no COPCs were identified or there is no potential for contact. Similarly, the vapor intrusion pathway is currently considered incomplete as no COPCs were identified in indoor air based on the RI sampling and current conditions. These data indicate that the current floor system and operation of the HVAC system is adequately preventing migration of VOCs from the subsurface into indoor air. As long as the current conditions are maintained, no exposure pathways are considered complete and no further action is necessary at the Site.

5. References

New York State Department of Environmental Conservation (NYSDEC). 1998. Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.

New York State Department of Environmental Conservation (NYSDEC). 2002. Draft DER-10 Technical Guidance for Site Investigation and Remediation. December 2002.

New York State Department of Environmental Conservation (NYSDEC). 2006. 6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1 to 375-4 & 375-6. December 2006.

New York State Department of Health (NYSDOH). 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York. October 2006.

New York State Department of Health (NYSDOH). 2007. Letter from Mr. Gary A Litwin, Director, Bureau of Environmental Exposure Investigation, to Mr. Dale Desnoyers, Director, Division of Environmental Remediation, New York State Department of Environmental Conservation, Re: Soil Vapor/Indoor Air Matrices. June 25, 2007.

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Table 1. Evaluation of Constituents of Potential Concern in Soil, Target Rock Site, East Farmingdale, New York

Constituent	Frequency Detects / Total	Percent Detects	Range of Detects Min – Max (µg/kg)	Screening Level [a] (µg/kg)	COPC ? (YES/NO)
Acetone	0 / 5	–	– – –	1,000,000	NO
Dichlorodifluoromethane (Freon 12)	0 / 5	–	– – –	NA	NO
Benzene	0 / 5	–	– – –	89,000	NO
Bromodichloromethane	0 / 5	–	– – –	NA	NO
Bromoform	0 / 5	–	– – –	NA	NO
Bromomethane	0 / 5	–	– – –	NA	NO
Methyl Ethyl Ketone (2-Butanone)	0 / 5	–	– – –	1,000,000	NO
Trichlorofluoromethane (Freon 11)	0 / 5	–	– – –	NA	NO
Carbon Disulfide	0 / 5	–	– – –	NA	NO
Carbon Tetrachloride	0 / 5	–	– – –	44,000	NO
Chlorobenzene	0 / 5	–	– – –	1,000,000	NO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0 / 5	–	– – –	NA	NO
Chloroethane	0 / 5	–	– – –	NA	NO
Chloroform	0 / 5	–	– – –	700,000	NO
Chloromethane	0 / 5	–	– – –	NA	NO
Dibromochloromethane	0 / 5	–	– – –	NA	NO
1,1-Dichloroethane	0 / 5	–	– – –	480,000	NO
1,2-Dichloroethane	0 / 5	–	– – –	60,000	NO
1,1-Dichloroethene	0 / 5	–	– – –	1,000,000	NO
1,2-Dichloropropane	0 / 5	–	– – –	NA	NO
cis-1,3-Dichloropropene	0 / 5	–	– – –	NA	NO
Methyl Acetate	0 / 5	–	– – –	NA	NO
trans-1,3-Dichloropropene	0 / 5	–	– – –	NA	NO
Ethylbenzene	0 / 5	–	– – –	780,000	NO
2-Hexanone	0 / 5	–	– – –	NA	NO
Methylene Chloride	0 / 5	–	– – –	1,000,000	NO
Methyl Isobutyl Ketone	0 / 5	–	– – –	NA	NO
Styrene	0 / 5	–	– – –	NA	NO
1,1,2,2-Tetrachloroethane	0 / 5	–	– – –	NA	NO
Tetrachloroethene	2 / 5	40 %	1.7 – 10	300,000	NO
Toluene	3 / 5	60 %	0.26 – 1.2	1,000,000	NO
1,1,1-Trichloroethane	0 / 5	–	– – –	1,000,000	NO
1,1,2-Trichloroethane	0 / 5	–	– – –	NA	NO
Trichloroethene	0 / 5	–	– – –	400,000	NO
Vinyl chloride	0 / 5	–	– – –	27,000	NO
Xylenes, Total	0 / 5	–	– – –	1,000,000	NO
cis-1,2-Dichloroethene	0 / 5	–	– – –	1,000,000	NO
Cyclohexane	0 / 5	–	– – –	NA	NO
trans-1,2-Dichloroethene	0 / 5	–	– – –	1,000,000	NO
Isopropylbenzene (Cumene)	0 / 5	–	– – –	NA	NO
1,3-Dichlorobenzene	0 / 5	–	– – –	560,000	NO
1,4-Dichlorobenzene	0 / 5	–	– – –	250,000	NO
1,2-Dichlorobenzene	0 / 5	–	– – –	1,000,000	NO
1,2-Dibromo-3-Chloropropane	0 / 5	–	– – –	NA	NO
1,2,4-Trichlorobenzene	0 / 5	–	– – –	NA	NO
1,2-Dibromoethane (EDB)	0 / 5	–	– – –	NA	NO
Methyl tert-butyl ether	0 / 5	–	– – –	1,000,000	NO
Methylcyclohexane	0 / 5	–	– – –	NA	NO

[a] New York State Department of Environmental Conservation Subpart 375-6 Industrial Use Soil Cleanup Objective.

– Not applicable.
COPC Constituent of potential concern.
µg/kg Micrograms per kilogram.
NA Not available.

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Table 2. Evaluation of Constituents of Potential Concern in Exterior Soil Vapor, Target Rock Site, East Farmingdale, New York

Constituent	Frequency Detects / Total	Percent Detects	Range of Detects Min – Max (µg/m³)	Screening Level (µg/m³)	COPC ? (YES/NO)
Dichlorodifluoromethane (Freon 12)	8 / 9	89 %	1.4 – 3.4	NA	NO
Chloromethane	0 / 8	–	– – –	NA	NO
Vinyl Chloride	0 / 8	–	– – –	NA	NO
Bromomethane	1 / 9	11 %	1.7	NA	NO
Chloroethane	0 / 8	–	– – –	NA	NO
Trichlorofluoromethane (Freon 11)	7 / 9	78 %	0.85 – 69	NA	NO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5 / 9	56 %	11 – 310	NA	NO
1,1-Dichloroethene	2 / 8	25 %	0.86 – 1.9	NA	NO
Acetone	8 / 9	89 %	18 – 180	NA	NO
Carbon Disulfide	5 / 9	56 %	2.6 – 13	NA	NO
Methylene Chloride	0 / 8	–	– – –	NA	NO
Methyl tert-butyl ether	0 / 8	–	– – –	NA	NO
trans-1,2-Dichloroethene	0 / 8	–	– – –	NA	NO
1,1-Dichloroethane	5 / 8	63 %	1.4 – 6.2	NA	NO
Methyl Ethyl Ketone (2-Butanone)	8 / 9	89 %	4.4 – 51	NA	NO
cis-1,2-Dichloroethene	3 / 8	38 %	1.2 – 11	NA	NO
Chloroform	3 / 8	38 %	0.82 – 3.5	NA	NO
1,1,1-Trichloroethane	8 / 9	89 %	2.8 – 260	NA	NO
Cyclohexane	4 / 8	50 %	0.51 – 5.8	NA	NO
Carbon Tetrachloride	0 / 8	–	– – –	NA	NO
Benzene	8 / 9	89 %	1.3 – 10	NA	NO
1,2-Dichloroethane	0 / 8	–	– – –	NA	NO
Trichloroethene	6 / 9	67 %	0.98 – 42	NA	NO
1,2-Dichloropropane	0 / 8	–	– – –	NA	NO
Bromodichloromethane	0 / 8	–	– – –	NA	NO
cis-1,3-Dichloropropene	0 / 8	–	– – –	NA	NO
Methyl Isobutyl Ketone	1 / 8	13 %	2.1	NA	NO
Toluene	8 / 9	89 %	1.2 – 9.1	NA	NO
trans-1,3-Dichloropropene	0 / 8	–	– – –	NA	NO
1,1,2-Trichloroethane	0 / 8	–	– – –	NA	NO
Tetrachloroethene	9 / 9	100 %	17 – 590	NA	NO
2-Hexanone	0 / 8	–	– – –	NA	NO
Dibromochloromethane	0 / 8	–	– – –	NA	NO
1,2-Dibromoethane (EDB)	0 / 8	–	– – –	NA	NO
Chlorobenzene	0 / 8	–	– – –	NA	NO
Ethylbenzene	1 / 8	13 %	1.3	NA	NO
m,p-Xylene	5 / 9	56 %	0.69 – 2.7	NA	NO
o-Xylene	1 / 8	13 %	1.1	NA	NO
Styrene	3 / 9	33 %	0.64 – 2.5	NA	NO
Bromoform	0 / 8	–	– – –	NA	NO
Isopropylbenzene (Cumene)	0 / 8	–	– – –	NA	NO
1,1,2,2-Tetrachloroethane	0 / 8	–	– – –	NA	NO
1,3-Dichlorobenzene	0 / 8	–	– – –	NA	NO
1,4-Dichlorobenzene	0 / 8	–	– – –	NA	NO
1,2-Dichlorobenzene	0 / 8	–	– – –	NA	NO
1,2,4-Trichlorobenzene	0 / 8	–	– – –	NA	NO
Methyl Acetate	1 / 8	13 %	2.6	NA	NO
Methylcyclohexane	0 / 8	–	– – –	NA	NO
1,2-Dibromo-3-chloropropane	0 / 8	–	– – –	NA	NO

–	Not applicable.
COPC	Constituent of potential concern.
µg/m³	Micrograms per cubic meter.
NA	Not available.

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Table 3. Evaluation of Constituents of Potential Concern in Sub-Slab Soil Vapor, Target Rock Site, East Farmingdale, New York

Constituent	Frequency Detects / Total	Percent Detects	Range of Detects Min – Max (µg/m³)	Screening Level [a] (µg/m³)		COPC ? (YES/NO)
Dichlorodifluoromethane (Freon 12)	4 / 8	50 %	2.9 – 3.5	NA		NO
Chloromethane	0 / 8	–	– – –	NA		NO
Vinyl Chloride	1 / 8	13 %	1.6	250	M1	NO
Bromomethane	0 / 8	–	– – –	NA		NO
Chloroethane	0 / 8	–	– – –	NA		NO
Trichlorofluoromethane (Freon 11)	4 / 8	50 %	3.3 – 7.8	NA		NO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5 / 8	63 %	91 – 3,300	NA		NO
1,1-Dichloroethene	1 / 8	13 %	140	1,000	M2	NO
Acetone	7 / 8	88 %	140 – 1,400	NA		NO
Carbon Disulfide	2 / 8	25 %	11 – 14	NA		NO
Methylene Chloride	0 / 8	–	– – –	NA		NO
Methyl tert-butyl ether	0 / 8	–	– – –	NA		NO
trans-1,2-Dichloroethene	0 / 8	–	– – –	NA		NO
1,1-Dichloroethane	4 / 8	50 %	61 – 780	NA		NO
Methyl Ethyl Ketone (2-Butanone)	4 / 8	50 %	8.4 – 17	NA		NO
cis-1,2-Dichloroethene	1 / 8	13 %	620	1,000	M2	NO
Chloroform	1 / 8	13 %	3	NA		NO
1,1,1-Trichloroethane	8 / 8	100 %	4.1 – 50,000	1,000	M2	**YES**
Cyclohexane	0 / 8	–	– – –	NA		NO
Carbon Tetrachloride	0 / 8	–	– – –	250	M1	NO
Benzene	4 / 8	50 %	2 – 3.6	NA		NO
1,2-Dichloroethane	0 / 8	–	– – –	NA		NO
Trichloroethene	6 / 8	75 %	5.5 – 32,000	250	M1	**YES**
1,2-Dichloropropane	0 / 8	–	– – –	NA		NO
Bromodichloromethane	0 / 8	–	– – –	NA		NO
cis-1,3-Dichloropropene	0 / 8	–	– – –	NA		NO
Methyl Isobutyl Ketone	0 / 8	–	– – –	NA		NO
Toluene	3 / 8	38 %	5.1 – 13	NA		NO
trans-1,3-Dichloropropene	0 / 8	–	– – –	NA		NO
1,1,2-Trichloroethane	0 / 8	–	– – –	NA		NO
Tetrachloroethene	8 / 8	100 %	120 – 51,000	1,000	M2	**YES**
2-Hexanone	0 / 8	–	– – –	NA		NO
Dibromochloromethane	1 / 8	13 %	5.4	NA		NO
1,2-Dibromoethane (EDB)	0 / 8	–	– – –	NA		NO
Chlorobenzene	0 / 8	–	– – –	NA		NO
Ethylbenzene	2 / 8	25 %	4 – 32	NA		NO
m,p-Xylene	3 / 8	38 %	6.8 – 140	NA		NO
o-Xylene	3 / 8	38 %	2.5 – 47	NA		NO
Styrene	0 / 8	–	– – –	NA		NO
Bromoform	1 / 8	13 %	7.3	NA		NO
Isopropylbenzene (Cumene)	1 / 8	13 %	10	NA		NO
1,1,2,2-Tetrachloroethane	0 / 8	–	– – –	NA		NO
1,3-Dichlorobenzene	0 / 8	–	– – –	NA		NO
1,4-Dichlorobenzene	0 / 8	–	– – –	NA		NO
1,2-Dichlorobenzene	0 / 8	–	– – –	NA		NO
1,2,4-Trichlorobenzene	0 / 8	–	– – –	NA		NO
Methyl Acetate	0 / 8	–	– – –	NA		NO
Methylcyclohexane	0 / 8	–	– – –	NA		NO
1,2-Dibromo-3-chloropropane	0 / 8	–	– – –	NA		NO

[a] New York State Department of Health, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Decision Matrices.

– Not applicable.
COPC Constituent of potential concern.
µg/m³ Micrograms per cubic meter.
M1 Matrix 1
M2 Matrix 2
NA Not available.

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Table 4. Evaluation of Constituents of Potential Concern in Groundwater, Target Rock Site, East Farmingdale, New York

Constituent	Frequency Detects / Total	Percent Detects	Range of Detects Min – Max (µg/L)	Screening Level [a] (µg/L)		COPC ? (YES/NO)
Acetone	12 / 37	32 %	1.2 – 3.6	50		NO
Dichlorodifluoromethane (Freon 12)	0 / 37	–	– – –	5		NO
Benzene	0 / 37	–	– – –	1		NO
Bromodichloromethane	0 / 37	–	– – –	50		NO
Bromoform	0 / 37	–	– – –	50		NO
Bromomethane	0 / 37	–	– – –	5		NO
Methyl Ethyl Ketone (2-Butanone)	1 / 37	3 %	4.3	50		NO
Trichlorofluoromethane (Freon 11)	0 / 37	–	– – –	5		NO
Carbon Disulfide	0 / 37	–	– – –	60		NO
Carbon Tetrachloride	0 / 37	–	– – –	5		NO
Chlorobenzene	0 / 37	–	– – –	5		NO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	2 / 37	5 %	2.6 – 29	5		**YES**
Chloroethane	0 / 37	–	– – –	5		NO
Chloroform	5 / 37	14 %	0.71 – 1.7	7		NO
Chloromethane	0 / 37	–	– – –	5		NO
Dibromochloromethane	0 / 37	–	– – –	50		NO
1,1-Dichloroethane	2 / 37	5 %	1.4 – 6	5		**YES**
1,2-Dichloroethane	0 / 37	–	– – –	0.6		NO
1,1-Dichloroethene	0 / 37	–	– – –	5		NO
1,2-Dichloropropane	0 / 37	–	– – –	1		NO
cis-1,3-Dichloropropene	0 / 37	–	– – –	0.4	[b]	NO
Methyl Acetate	0 / 37	–	– – –	NA		NO
trans-1,3-Dichloropropene	0 / 37	–	– – –	0.4	[b]	NO
Ethylbenzene	1 / 37	3 %	29	5		**YES**
2-Hexanone	0 / 37	–	– – –	50		NO
Methylene Chloride	0 / 37	–	– – –	5		NO
Methyl Isobutyl Ketone	0 / 37	–	– – –	NA		NO
Styrene	2 / 37	5 %	0.68 – 1.1	5		NO
1,1,2,2-Tetrachloroethane	0 / 37	–	– – –	5		NO
Tetrachloroethene	5 / 37	14 %	0.88 – 10	5		**YES**
Toluene	2 / 37	5 %	0.73 – 9.9	5		**YES**
1,1,1-Trichloroethane	4 / 37	11 %	0.7 – 18	5		**YES**
1,1,2-Trichloroethane	0 / 37	–	– – –	1		NO
Trichloroethene	2 / 37	5 %	1.2 – 2.2	5		NO
Vinyl chloride	0 / 37	–	– – –	2		NO
Xylenes, Total	1 / 37	3 %	35	5		**YES**
cis-1,2-Dichloroethene	3 / 37	8 %	1.6 – 2.6	5		NO
Cyclohexane	0 / 37	–	– – –	NA		NO
trans-1,2-Dichloroethene	0 / 37	–	– – –	5		NO
Isopropylbenzene (Cumene)	0 / 37	–	– – –	5		NO
1,3-Dichlorobenzene	0 / 37	–	– – –	3		NO
1,4-Dichlorobenzene	0 / 37	–	– – –	3		NO
1,2-Dichlorobenzene	0 / 37	–	– – –	3		NO
1,2-Dibromo-3-Chloropropane	0 / 37	–	– – –	0.04		NO
1,2,4-Trichlorobenzene	0 / 37	–	– – –	5		NO
1,2-Dibromoethane (EDB)	0 / 37	–	– – –	0.0006		NO
Methyl tert-butyl ether	3 / 37	8 %	0.17 – 0.27	10		NO
Methylcyclohexane	0 / 37	–	– – –	NA		NO

[a] New York State Department of Environmental Conservation, Technical and Operations Guidance Series 1.1.1 Ambient Water Quality Standards

[b] Value for total 1,3-dichloropropene (sum of both cis-1,3-dichloropropene and trans-1,3-dichloropropene).

– Not applicable.
COPC Constituent of potential concern.
µg/L Micrograms per liter.
NA Not available.

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Table 5. Evaluation of Constituents of Potential Concern in Indoor Air, Target Rock Site, East Farmingdale, New York

Constituent	Frequency Detects / Total	Percent Detects	Range of Detects Min – Max ($\mu g/m^3$)	Screening Level [a] ($\mu g/m^3$)	COPC ? (YES/NO)
Dichlorodifluoromethane (Freon 12)	3 / 9	33 %	2.2 – 2.7	NA	NO
Chloromethane	3 / 9	33 %	1.2 – 3.4	NA	NO
Vinyl Chloride	0 / 9	–	– – –	NA	NO
Bromomethane	1 / 9	11 %	0.68	NA	NO
Chloroethane	1 / 9	11 %	0.57	NA	NO
Trichlorofluoromethane (Freon 11)	6 / 9	67 %	3.3 – 16	NA	NO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0 / 9	–	– – –	NA	NO
1,1-Dichloroethene	0 / 9	–	– – –	NA	NO
Acetone	9 / 9	100 %	630 – 21,000	NA	NO
Carbon Disulfide	0 / 9	–	– – –	NA	NO
Methylene Chloride	1 / 9	11 %	1.8	60	NO
Methyl tert-butyl ether	0 / 9	–	– – –	NA	NO
trans-1,2-Dichloroethene	0 / 9	–	– – –	NA	NO
1,1-Dichloroethane	0 / 9	–	– – –	NA	NO
Methyl Ethyl Ketone (2-Butanone)	7 / 9	78 %	1.6 – 10	NA	NO
cis-1,2-Dichloroethene	0 / 9	–	– – –	NA	NO
Chloroform	0 / 9	–	– – –	NA	NO
1,1,1-Trichloroethane	0 / 9	–	– – –	NA	NO
Cyclohexane	4 / 9	44 %	2.8 – 22	NA	NO
Carbon Tetrachloride	0 / 9	–	– – –	NA	NO
Benzene	5 / 9	56 %	0.94 – 5.9	NA	NO
1,2-Dichloroethane	0 / 9	–	– – –	NA	NO
Trichloroethene	0 / 9	–	– – –	5	NO
1,2-Dichloropropane	0 / 9	–	– – –	NA	NO
Bromodichloromethane	0 / 9	–	– – –	NA	NO
cis-1,3-Dichloropropene	0 / 9	–	– – –	NA	NO
Methyl Isobutyl Ketone	1 / 9	11 %	8	NA	NO
Toluene	3 / 9	33 %	1.5 – 5.4	NA	NO
trans-1,3-Dichloropropene	0 / 9	–	– – –	NA	NO
1,1,2-Trichloroethane	0 / 9	–	– – –	NA	NO
Tetrachloroethene	0 / 9	–	– – –	100	NO
2-Hexanone	0 / 9	–	– – –	NA	NO
Dibromochloromethane	0 / 9	–	– – –	NA	NO
1,2-Dibromoethane (EDB)	0 / 9	–	– – –	NA	NO
Chlorobenzene	0 / 9	–	– – –	NA	NO
Ethylbenzene	1 / 9	11 %	1.2	NA	NO
m,p-Xylene	6 / 9	67 %	1.7 – 5.7	NA	NO
o-Xylene	1 / 9	11 %	1.1	NA	NO
Styrene	0 / 9	–	– – –	NA	NO
Bromoform	0 / 9	–	– – –	NA	NO
Isopropylbenzene (Cumene)	0 / 9	–	– – –	NA	NO
1,1,2,2-Tetrachloroethane	0 / 9	–	– – –	NA	NO
1,3-Dichlorobenzene	0 / 9	–	– – –	NA	NO
1,4-Dichlorobenzene	2 / 9	22 %	7.5 – 12	NA	NO
1,2-Dichlorobenzene	0 / 9	–	– – –	NA	NO
1,2,4-Trichlorobenzene	0 / 9	–	– – –	NA	NO
Methyl Acetate	0 / 9	–	– – –	NA	NO
Methylcyclohexane	0 / 9	–	– – –	NA	NO
1,2-Dibromo-3-chloropropane	0 / 9	–	– – –	NA	NO

[a] New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).

– Not applicable.
COPC Constituent of potential concern.
$\mu g/m^3$ Micrograms per cubic meter.
NA Not available.