

ILLINOIS EPA RCRA CORRECTIVE ACTION CERTIFICATION

This certification must accompany any document submitted to Illinois EPA in accordance with the corrective action requirements set forth in a facility's RCRA permit. The original and two copies of all documents submitted must be provided.

1.0 FACILITY IDENTIFICATION

Name: WRB Refining LLC - Wood River Refinery County: Madison
Street Address: 900 South Central Ave. Site No. (IEPA): 1191150002
City: Roxana, IL 62084 Site No. (USEPA): ILD 080 012 305

2.0 OWNER INFORMATION

Name: Not Applicable

Mailing Address: _____

Contact Name: _____

Contact Title: _____

Phone No.: _____

3.0 OPERATOR INFORMATION

Equilon Enterprises LLC d/b/a Shell Oil Products US

17 Junction Drive, PMB #399

Glen Carbon, IL 62034

Kevin Dyer

Principal Program Manager

618-288-7237

4.0 TYPE OF SUBMISSION (check applicable item and provide requested information, as applicable)

- ☐ RFI Phase I Workplan/Report
☐ RFI Phase II Workplan/Report
☐ CMP Report; Phase _____
☒ Other (describe):

3rd Quarter 2010 Soil Vapor Sampling Report
Date of Submittal November 30, 2010

IEPA Permit Log No. _____

Date of Last IEPA Letter
on Project 8/5/10

Log No. of Last IEPA

Letter on Project B-43-CA-16, BA-43-CA-18

Does this submittal include groundwater information: ☐ Yes ☒ No

5.0 DESCRIPTION OF SUBMITTAL: (briefly describe what is being submitted and its purpose)

Soil vapor sampling report for the 3rd quarter 2010 sampling event in the project area in the Village of Roxana.

6.0 DOCUMENTS SUBMITTED (identify all documents in submittal, including cover letter; give dates of all documents)

Cover letter, RCRA Corrective Action Certification and 3rd Quarter Soil Vapor Sampling Report, dated November 30, 2010

7.0 CERTIFICATION STATEMENT - (This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in Items 7.1, 7.2 and 7.3 below). The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IEPA RCRA Corrective Action Certification

For: Equilon Enterprises LLC d/b/a Shell Oil Products US

Date of Submission: _____

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7.1 OWNER/OPERATOR CERTIFICATION (Must be completed for all submittals. Certification and signature requirements are set forth in 35 IAC 702.126.) All submittals pertaining to the corrective action requirements set forth in a RCRA Permit must be signed by the person designated below (or by a duly authorized representative of that person):

1. For a Corporation, by a principal executive officer of at least the level of vice-president.
2. For a Partnership or Sole Proprietorship, by a general partner or the proprietor, respectively.
3. For a Governmental Entity, by either a principal executive officer or a ranking elected official.

A person is a duly authorized representative only if:

1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ (Date) _____

Title: _____

Operator Signature: Kevin E. Ryan 11/23/10
(Date)

Title: Principal Program Manager

7.2 PROFESSIONAL CERTIFICATION (if necessary) - Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Professional's Signature: _____ Date: _____

Professional's Name: Robert B. Billman

Professional's Seal: _____

Professional's Address: URS Corporation

1001 Highlands Plaza Drive West

St. Louis, MO 63110

Professional's Phone No.: 314-743-4108

7.3 LABORATORY CERTIFICATION (if necessary) - The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory Air Toxics Ltd

Phua Penney 11-29-10
Signature of Laboratory Responsible Officer Date

Mailing Address of Laboratory

180 Blue Ravine Rd Ste. B
Folsom, CA 95630

Phua Penney Laboratory Director
Name and Title of Laboratory Responsible Officer



November 30, 2010

Mr. Steven F. Nightingale, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

Subject: Soil Vapor Sampling Report – 3rd Quarter 2010
Roxana, Illinois
119115002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43-CA-16 and 18

Dear Mr. Nightingale:

On behalf of Shell Oil Products US, URS Corporation is submitting the enclosed report for your review. This sampling was required by Condition 3 of the Agency's letter dated August 5, 2010.

If you have any questions during your review, please contact Kevin Dyer, SOPUS project manager, at kevin.dyer@shell.com (618/288-7237), or me at bob_billman@urscorp.com (314/743-4108).

Sincerely,

A handwritten signature in blue ink that reads "Robert B. Billman".

Robert B. Billman
Senior Project Manager

Enclosures: RCRA Corrective Action Certification and Report (original plus 2 copies)

Cc: Kevin Dyer, SOPUS
 Marty Reynolds, Village of Roxana
 Eric Petersen, ConocoPhillips

1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
Phone: 314.429.0100
Fax: 314.429.0462

R E P O R T

SOIL VAPOR SAMPLING –
3RD QUARTER 2010

Roxana, Illinois

Prepared for:

Shell Oil Products US
17 Junction Drive
PMB#399
Glen Carbon, Illinois 62034

November 2010



URS Corporation
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project 21562291.00004

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Shell Oil Products US (SOPUS) has been conducting a subsurface investigation in the Village of Roxana in the area generally bounded by Illinois Route 111 and the west property boundary (aka west fenceline) of the WRB Refining LLC Wood River Refinery (WRR) (**Figure 1**). The combined area is collectively referred to as the “Site” in this report. In addition, some limited investigation has been conducted inside the WRR; this work was conducted in cooperation with ConocoPhillips Company (ConocoPhillips).

SOPUS started investigating and delineating soil vapor in the above area with the installation, development, and sampling of 64 vapor monitoring ports at 16 vapor monitoring locations (VMP-1 through -16) as identified in a work plan dated January 21, 2009 and approved with conditions by Illinois Environmental Protection Agency (IEPA) on May 12, 2009. The results of the vapor investigation and delineation efforts were documented in the *Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Report*, dated February 18, 2010. Based on recommendations contained in that report (to more closely evaluate the potential for vapor intrusion near occupied structures), an additional four vapor monitoring ports were installed, developed, and sampled at three new vapor monitoring locations (VMP-17 through -19) in the Spring/Summer 2010, and the results were documented in the *Addendum to February 2010 Report – Supplemental Investigation Activities*, dated September 20, 2010. The vapor monitoring location network is shown on **Figure 2**.

IEPA provided comments to the February 18, 2010 report in a letter to SOPUS dated August 5, 2010. In particular, Comment number 3 requires quarterly soil vapor sampling and reporting. In addition, Comment number 2 describes the need to delineate the extent of soil vapors based on IEPA’s proposed amendments to Tiered Approach to Corrective Action Objectives (TACO) for soil vapor dated September 2008.¹ . Based on a telephone conversation between IEPA and URS Corporation (URS) on September 27, 2010, this report also contains a discussion of the conceptual site model (CSM) and additional data needs.

¹ On November 9, 2009 the Illinois Pollution Control Board (IPCB) granted a partial stay in the Agency’s proposed vapor intrusion rules, which contain the screening criteria.

2.0 DESCRIPTION OF SUBSURFACE CONDITIONS

This section summarizes the current understanding of the investigation area geology, hydrogeology, and the nature and extent of hydrocarbon impacts, which help form the overall Conceptual Site Model (CSM).

The investigation area includes a portion of a residential area in the Village of Roxana, the Public Works Yard for the Village, and the adjoining portions of the refinery (WRR). For the purposes of this report, the term “Village” is used to denote the residential area generally bounded by 1st Street (north), 8th Street (south), Chaffer Street (east) and Route 111 (Central Avenue) (west).

2.1 GEOLOGY

The investigation area is located approximately 1.5 miles east of the Mississippi River within the American Bottoms floodplain. The surface topography is generally flat; however it slopes downward to the west-southwest in the southwestern portion of the Village, with a total drop in elevation of approximately 15 feet across the area.

The ground surface in the Village, where not developed with structures, is primarily grass covered with either concrete and/or chip-and-seal alleys or streets. Beneath any man-made fill material, the subsurface conditions generally consist of silty clay underlain by sands to the depths investigated.

The stratigraphy beneath the investigation area consists of the following materials, from top down:

- Fill - (mainly clay, some gravel and cinders, etc.) Primarily located under the WRR and extends from the surface to approximately 10 feet in depth; fill is located under a small portion of the Village near the Public Works Yard.
- Clay - Primarily silty clay, is present over most of the area west of Chaffer Street and extends to a depth of approximately 25 feet below ground surface (bgs). The thickest clay sequence is located on the western side of Route 111. The thickness of clay underneath the Village varies from five to seven feet. Throughout the investigation area the clay has intermittent layers of silt or sand (0 to 5 feet thick).
- Sand - Consisting of primarily fine to medium grained (which coarsens with depth). The depth to the top of the sand ranges between approximately 5 and 24 feet bgs.

Discontinuous lower permeability lenses of clay with some silt and sand are occasionally present starting at a depth of approximately 20 feet bgs. These lenses vary in thickness from a few feet up to 13 feet and do not appear to be laterally (or vertically) extensive.

The general stratigraphy beneath the investigation area can be seen on the cross-section presented on **Figure 3**.

2.2 HYDROGEOLOGY

Groundwater in the sands underlying the investigation area is the primary source for large volume water production in the area (e.g., industrial and municipal supply). Prior to development in the area, the natural movement of groundwater was toward the west (toward the Mississippi River). Since development in the area, groundwater pumping has altered the groundwater flow in the area such that it now flows toward the nearby pumping wells (e.g. WRR, BP, etc).

The water table generally begins at a depth of approximately 25 to 40 feet bgs (approximately elevation 403 to 406), as a result of the change in surface elevation. Therefore, there is generally a 15 to 30 foot thick vadose (unsaturated) zone in the sand. For historical perspective, water levels have risen about 10 feet along the WRR west fenceline between first quarter 2007 and fourth quarter 2010, and about 4-5 feet between the late 2009 vapor sampling event and this event.

As indicated above, groundwater is hydraulically connected with the Mississippi River, however, given the large distance from the river and nearby high-volume groundwater pumping (e.g., WRR, BP, etc) water level fluctuations due to river changes in this area are muted.

Discontinuous lower permeability lenses of clay with some silt and sand are sometimes present starting at a depth of approximately 20 feet bgs. Groundwater can be present on these lenses, however the discontinuous nature of these lenses limits their ability to perch infiltrating water.

A gauging event was conducted on August 27th to understand groundwater conditions with respect to the deeper vapor ports. **Figure 4** shows the groundwater potentiometric surface for the investigation area, indicating groundwater flow toward WRR pumping wells.

2.3 CONCEPTUAL SITE MODEL

Groundwater: The results of investigations to date depict two distinct but commingled groundwater plumes, a dissolved phase benzene plume located primarily beneath the Public Works Yard and a dissolved phase hydrocarbon plume located further north beneath the WRR and extending a short distance west beneath the Village (**Figure 5**).

The dissolved phase benzene plume appears to be associated with a 1986 benzene release which occurred from a pipeline in the extreme southwestern portion of the Village of Roxana in a commercial/industrial area just west of the intersection of Rand and Highway 111. The groundwater flow direction, as a result of groundwater being pulled towards the WRR pumping

centers, has influenced the distribution of the dissolved benzene plume and pulled it primarily under the Public Works Yard.

The distribution of benzene concentrations extends between the 1986 benzene release location and the refinery. The area of impact widens closer to the refinery, consistent with groundwater flow toward pumping centers (refer to **Figure 5**). Benzene concentrations in proximity to and under the Village of Roxana Public Works Yard have been identified in the hundreds to approximately 1,100 part per million (ppm). Benzene concentrations on the north and south edges of this area generally exhibit part per billion (ppb) benzene concentrations, showing that concentrations drop off dramatically with distance from the source area.

Releases of petroleum products at the WRR have resulted in a dissolved phase groundwater plume beneath the refinery and along the west fenceline and extending at some locations approximately 200 feet beneath the eastern edge of the Village. In addition, the edge of a Light Non-Aqueous Phase Liquid (LNAPL) plume has been observed in certain areas near the west fenceline within the confines of the WRR. The primary LNAPL plume is located further east in the refinery. The effects of groundwater pumping and product skimming at the WRR, as required by the RCRA Part B Permit, acts to contain and recover LNAPL and dissolved phase impacts.

Over the years of operation of the WRR, there has been periodic inspection and repair of tanks and associated piping near the west fenceline. **Appendix A** summarizes the records reviewed from the WRR on these activities².

Vapor Intrusion: The potential transport mechanism for soil gas is diffusion. Advective flow of soil gas due to changes in the levels of the Mississippi River is not expected to be of significance. While groundwater elevations are currently higher than the recent past, the distance of the investigation area from the Mississippi River mutes any pneumatic driver (e.g., rapid groundwater elevation fluctuations) that would push soil vapors vertically. Furthermore, even at the current higher groundwater elevations, there is up to 30 feet of open vadose zone which allows for biological degradation of constituents in soil vapor as they slowly diffuse upwards.

At most locations, oxygen is present in the shallow depths and little or no aromatic hydrocarbons (e.g., BTEX) are present. Carbon dioxide (i.e., biogas) levels are relatively high throughout the soil column at many locations which supports that degradation of petroleum hydrocarbons is occurring via aerobic biodegradation.

² There was limited if any information available for review for the first ~75 years of operation for the WRR, since the requirements were not release reporting.

For vapor intrusion, the primary concern is the potential intrusion of shallow soil gas through basement and/or building slabs. So, the elevated hydrocarbon levels at greater depths are not directly significant.

Figure 6 presents a schematic diagram of this CSM.

The third quarter 2010 soil vapor sampling was performed by URS in accordance with applicable URS site-specific Standard Operating Procedures (SOPs) (included as **Appendix B**), that incorporate previous IEPA comments, conditions, and/or modifications. The third quarter vapor sampling event was conducted between August 25 and September 20, 2010. Air Toxics, Ltd. of Folsom, California supported URS with the soil vapor analytical services.

Health and Safety during the field activities was governed by the *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan (HASP)* dated August 2010 (and updates) as prepared by URS (URS, 2010a). In addition, for work performed on WRR property, health and safety procedures were supplemented by the *ConocoPhillips Environmental and Geotechnical Work 2010 HASP*, dated March 2010, as prepared by URS (URS, 2010b). More information on site health and safety procedures is presented in **Section 3.2**.

3.1 VAPOR MONITORING POINT SAMPLING

The soil vapor sampling network consists of 19 vapor monitoring point (VMP) locations (see **Figure 2**) placed to monitor potential soil vapors emanating from either the dissolved phase benzene and/or dissolved phase hydrocarbon plume.

At each of the VMP locations, ports are generally at four depths³ throughout the subsurface as follows, which was based on IEPA direction:

- 5 feet below ground surface,
- 5 feet above the groundwater depth as observed during installation,
- Generally 1 foot below the shallow clay/sand interface (the upper bentonite seal was below the interface)⁴, and
- The final port was screened approximately halfway between the port at the shallow clay/sand interface and the port located five feet above the water table with a bias toward intervals with elevated Photoionization Detector (PID) readings.

These different sample depths are designated as the bottom depth of the screened interval in the sample IDs used during this field investigation. The individual ports were color coded in the field, shallow to deep, using the color scheme of yellow (5 feet bgs), blue (second interval), green (third interval), and red (5 feet above water). Ports that were added after the initial sampling event in 2009 were color coded white.

³ With the exception of single shallow ports at VMP-17, 18, and 19 and five ports at VMP-3.

⁴ Exceptions were made at 3 (VMP-3, VMP-4, and VMP-9) of the 16 original locations based on a review of either geological information and/or PID readings. A fifth shallow port was added at VMP-3 during the supplemental investigation.

Vapor Monitoring Port Sampling

VMP sampling activities were attempted at each vapor monitoring port. The sampling was performed in accordance with the revised SOP No. 44R – Soil Vapor Purging and Sampling (see **Appendix B** for full details).

- Data pertaining to canister ID, start and finish time, initial and final vacuum readings, purge volumes, and leak checks were recorded on the Soil Vapor Sampling – Canister Sampling Data field sheets, included in **Appendix C**. Data recorded in the field using portable field analyzers such as a PID, flame ionization detector (FID), multi-gas meter, landfill gas meter, and a helium gas detector were recorded on the Soil Vapor Sampling – Tedlar Sampling Data field sheet. These data sheets are included following the canister sampling data in **Appendix C**. Field measurements from this event and previous events are presented on Table C-1 in **Appendix C**, following the field sheets.
- Prior to mobilizing for sampling, an initial Summa canister vacuum check was performed. A designated pressure gauge provided by the laboratory was attached to the Summa canister inlet. The Summa canister valve was opened completely. The pressure gauge reading was recorded as “Initial Vacuum Reading” on the Summa canister tag and the field sheet. This ensured that the canister showed a vacuum of approximately 28 to 30 inches of mercury (Hg). If the canister displayed a vacuum of less than 25 inches of Hg, the canister was set aside and returned to the lab without a sample.

In addition, prior to mobilization, each flow controller was subjected to an isolated vacuum check to ensure that frequently used connectors did not leak. This was conducted by attaching a plug to one end of the controller and a barbed connector to the other. A 15 mL hand pump with a vacuum gauge was then attached to the barb. The hand pump evacuated the air inside the controller until a vacuum of at least 10 inches Hg was achieved. If the vacuum change over five minutes was equal or less than 0.5 in. Hg, the controller was considered acceptable for sampling use.

These checks are further detailed in SOP 44R and -46 Air Sampling with Summa Canisters, in **Appendix B**.

- The following steps were used to collect each sample.

- Upon arrival at a sampling location, the sampling crew would open the vapor point vault to check integrity of the surface components of each of the individual soil vapor monitoring port(s) (VMPs). This included checking that each port was closed with its Swagelok® stainless steel reducer and plug in place and properly labeled to identify the depth.
- The sample train was set up as shown in the photo below. Teflon® tubing was connected directly using Swagelok® ferrule connections. A flow controller, provided by the laboratory, was then connected to the Summa canister inlet. Flow controllers were not reused during the sampling event. Each flow controller is pre-set by the laboratory to collect the sample over a half-hour period; for a 1-Liter Summa canister, one half-hour is a standard collection time (~28 ml/min). Once the sample train was assembled, a vacuum leak check was performed in accordance with SOP 44R.
- An enclosure was then placed over the VMP and assembled sample train as shown in the photo below. The enclosure has openings for:
 - The introduction of tracer gas (i.e., helium);
 - Pressure relief to the atmosphere and access for a tracer gas monitoring device;
 - Tygon tubing to connect to the peristaltic pump for Valve #1 (out) and Valve #2 (in and out).



The enclosure has sufficient glove access to open or close all valves within. The enclosure was sealed to the ground at each location with hydrated bentonite.

- Helium gas was introduced into the enclosure until the atmosphere reached a concentration of approximately 30 to 50% Helium; the regulator on the helium tank was then manually controlled to maintain that range.
- Three volumes were purged from each monitoring port prior to sampling using a 15 mL hand pump⁵. If the pump pulled back or the gauge held a vacuum, these VMPs were assumed to be saturated with water and no sample was collected (see additional information below in the section on “Additional Notes on VMP Sampling”).
- Following purging, a Tedlar bag sample was collected using a peristaltic pump to obtain readings for helium with a Dielectric Technologies MGD-2002 field analyzer. This check was used to verify the vacuum check for the sample train and integrity of the sample port. If the helium readings were $\geq 10\%$ of the concentration of the helium in the enclosure, the Tedlar bag was additionally analyzed using a landfill gas detector to obtain a direct methane reading. The presence of methane can cause a false positive helium reading.
- Once the initial helium leak check was completed, the summa canister was opened to collect a sample for approximately 30 minutes or until a vacuum gauge reading of 5 inches Hg was observed. The vacuum gauge was always allowed to reach less than 10 inches Hg, but was never allowed to drop below 2 inches of Hg. Once the summa canister was filled, the valve is closed (isolating it from the sample train) and soil vapor is bypassed to the second tedlar bag.

⁵ The purge volume was calculated using the following assumptions: vapor port tubing (1/8-in diameter): 2.41 mL/foot (single volume) and sample train assembly (1/4-in diameter): 9.65 mL/foot (single volume).

- A second Tedlar bag was filled following the completion of the summa canister sampling. Soil vapor readings were taken from the Tedlar bag for total volatile organics with a Multi-RAE PID and a Thermo Scientific TVA 1000 Vapor Analyzer FID; for hydrogen sulfide (H₂S), carbon monoxide (CO), oxygen (O₂), and lower explosive limit (LEL) with a Multi-RAE gas meter; and for carbon dioxide (CO₂), methane (CH₄), lower explosive limit (LEL), and oxygen (O₂) with a Landtec GEM 2000 landfill gas meter. Readings were also obtained and recorded for helium with helium detector. This check was used to verify the sample train integrity at the completion of sampling. If the helium readings were $\geq 10\%$ of the concentration of the helium in the enclosure, a 3rd Tedlar bag was collected as described below (see additional information below in the section on “Additional Notes on VMP Sampling”).
- At the completion of sampling, the summa canister and flow controller were removed and separated from the sample train and final vacuum reading were taken with a separate gauge. The summa canisters were then kept in a safe location, to minimize temperature change and protect the canister stem prior to shipping.
- At the completion of sampling, the port was closed with its plug to maintain port integrity.

The field sampling sheets for this event are provided in **Appendix C**. Field duplicates were collected to fulfill the QA/QC requirements. Field duplicates were collected by way of an additional T-connection in the sample train and attaching a second Summa™ canister with flow controller. Both the original and duplicate sample would be started at the same time. The results of the work are discussed in **Section 4.1**.

Additional Notes on VMP Sampling

Saturated VMP Screens – During the 3rd quarter 2010 sampling event, purging was attempted at each of the deep ports. Fourteen of the sixteen deep ports held vacuum when purging was attempted with the 15 mL hand pump (see below for notes on the other two ports where vacuum was not held). As a result of this, groundwater gauging was conducted to evaluate groundwater elevations in relation to VMP screens. The groundwater contours created using the gauging data confirmed that each of the deep ports was submerged beneath the water table, as shown on **Figure 4**. One of these ports, VMP-13-29.5, was also attached directly to a peristaltic pump in an attempt to pull groundwater to confirm if the screen was indeed saturated. Groundwater was able to be pulled to the surface, thus confirming that the screens were submerged.

Results of Helium Leak Check – The third Tedlar bag was filled directly from the vapor port via a peristaltic pump after the shroud was removed. This check was used to measure and evaluate both helium and methane to determine if helium readings were due to a leak (i.e., helium readings drop from the second Tedlar readings) or methane (still elevated readings on the helium detector). Methane has the potential to cause false positives during use of a helium detector.

Of the 54 vapor monitoring ports sampled during the 3rd quarter 2010 vapor sampling, the concentration of the helium in the second Tedlar bag was >10% of the concentration of helium in the enclosure at 20 vapor monitoring ports. Overall, the readings indicate that the helium concentrations were consistent with the second Tedlar concentration and relatively high concentrations of methane were also present. This indicated that most of the elevated readings were false positives due to methane and the sample integrity was acceptable. This is in-line with helium leak test results from the prior events.

There were however a few exceptions where helium concentrations could possibly be attributed to leaks in the sample train (this was verified by field and/or lab results (where $\geq 10\%$ of the concentration of the helium in the enclosure was detected)): VMP-1-8.5, VMP-15-25.5 and VMP-16-31. VMP-16-31 was the only sampling port where this occurred during previous events.

Sampling Issues – A sample was able to be obtained from VMP-16-31 even though the port should have been submerged under groundwater. The results were questionable due to elevated helium and oxygen readings in the natural gas results; therefore the TO-15 results were determined to be non-representative and were not included in this report.

3.2 HEALTH & SAFETY, DECONTAMINATION, AND INVESTIGATION DERIVED WASTE

Health & Safety

The soil vapor sampling was performed in general accordance with the site HASPs. URS field personnel primarily wore U.S. Environmental Protection Agency (USEPA) Level D personal protective equipment (PPE). In addition, work performed within the WRR was completed while wearing flame retardant clothing (FRCs).

A PID with a 10.6 electron volt (eV) probe and combustible gas indicator (CGI) were used during the field activities to monitor the air quality of the work zone for health and safety purposes. Field instruments were calibrated prior to each day's use in accordance with the manufacturer's specifications. Health and safety related information was primarily recorded in field logbooks. For work conducted on the WRR, ConocoPhillips personnel inspected the work

areas and monitored the ambient air, as necessary prior to the issuance of daily work permits (in areas where ConocoPhillips required).

Prior to beginning site work, and at the start of work each day, a daily safety meeting was held. The purpose of this meeting was to discuss the day's planned activities and to address any potential health and safety concerns.

Decontamination

Field equipment underwent decontamination procedures to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination between sampling locations.

Non-disposable/reusable sampling equipment (e.g., Swagelok[®] connectors) were decontaminated prior to the collection of each analytical sample by spraying with Alconox or Liquinox and distilled water. For vapor sampling equipment, a 15 mL hand pump was attached to the sampling apparatus and air was pumped into the sampling apparatus to ensure that any dust particles or moisture inside the apparatus was removed.

Investigation Derived Waste (IDW)

IDW including PPE and expendable materials (e.g., gloves and tubing) having a low probability of impact were collected in trash bags and disposed of properly as municipal waste.

3.3 SAMPLE HANDLING AND LABORATORY TESTING

Sample Handling

Summa canisters were labeled with a sample ID, site name, sampler initials, sample date and time, the parameters that were to be analyzed, and pre- and pos- vacuum readings. After collection, the samples were logged on a chain of custody (COC) form and packaged in a UN certified box to prevent damage during shipment. The samples were then delivered, under the proper COC documentation, to the laboratory. Due to the potential flammable nature of the vapor in the Summa canisters, the soil vapor samples were shipped as hazardous materials according to applicable International Civil Aviation Organization (ICAO) regulations. Vapor sample classification and shipping is detailed further in SOP No 49, included in **Appendix B**.

Laboratory Testing

The following test methods were utilized during this scope of work:

- VOCs via Modified USEPA TO-15 for soil vapor, and

- Natural gases (defined for purposes of this report as oxygen, nitrogen, carbon monoxide, methane, carbon dioxide, ethane, and ethene) via Modified ASTM D-1946 + Helium for soil vapor.

URS worked with the laboratory to attain reporting limits for compounds that have screening criteria so that, to the extent possible, they were less than the screening criteria. URS requested that Air Toxics report results between the method detection limit (MDL) and reporting limit (RL). Although results reported in this range are "J" - flagged as estimated, these data may be beneficial in cases where analytes would otherwise be reported as non-detect at RLs above screening levels. The screening values used were presented in IEPA's proposed amendments to Tiered Approach to Corrective Action Objectives (TACO) for soil vapor dated September 2008 and are shown on **Table 1**. Not all TO-15 Method constituents have TACO screening criteria.

The laboratory provided URS with a list of their "base" RL capability for target analytes. Sample RLs are a product of base RL, pressurization dilution factor, and analytical dilution factor. Thus the sample RL will increase with increases in dilution factor. Results that fell below the RLs but above the MDL were "J"-flagged as estimated concentrations by the laboratory

3.4 DATA QUALITY REVIEW AND DATA MANAGEMENT

Data Quality Review

Laboratory data were provided in electronic form. Analytical data were reviewed for quality and completeness (Level III review) and 10% of the data were validated (Level IV Review). Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages. Specific criteria reviewed included sample receipt condition and holding times, method blanks, surrogate spike recoveries, laboratory control sample recoveries, results reported from dilutions, and field duplicate results. Laboratory data reports along with data reviews (Level III) and validation (Level IV) reports are also included in **Appendix D**.

For vapor sampling, a total of 60 samples (54 investigative and 6 field duplicates) were prepared and analyzed for VOCs (TO-15 analytes) and natural gases.

Based on the above-mentioned criteria, soil vapor results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on laboratory control sample (LCS), surrogate and field duplicate data were achieved for these sample delivery groups (SDGs) to meet the project objectives.

Data Management

Field data and documentation collected as part of this scope of work became part of the project file. URS maintains the files for the site and the database management system.

The following documentation was completed and supplements the chain-of-custody records:

- Field logbooks and data;
- Field sample collection sheets;
- Safety documentation; and
- Correspondence.

4.1 SOIL VAPOR ANALYTICAL RESULTS

The following analytes were detected above the reporting limit in soil vapor during this quarterly sampling event:

Acetone	Hexane
Benzene	Isopropylbenzene
2-Butanone	Methylene Chloride
<i>Bromomethane</i>	2-Propanol
Carbon Disulfide	n-Propylbenzene
Cyclohexane	Toluene
Ethanol	1,2,4-Trimethylbenzene
Ethylbenzene	2,2,4-Trimethylpentane
4-Ethyltoluene	m,p-Xylene
Heptane	

Bromomethane was detected above the reporting limit in the soil vapor samples collected during this sampling event, but it was not detected during either the 2009 investigation or supplemental investigation (*italics in table above*).

Analytical results were compared to screening values in IEPA's TACO September 2008 proposed amendments for soil vapor. VMPs 1 – 9, 18, and 19 (located near residences in the Village) are compared against the residential screening criteria and samples from VMPs 10 – 17 (located at the Public Works Yard or WRR) are compared against the industrial/commercial screening criteria of IEPA's TACO objectives are presented on **Tables 2 and 3**, respectively.

A cumulative tabular summary (this and previous events) of the Modified Method TO-15 analytical detections for the Village and for the Public Works Yard and WRR is presented in **Tables 2 and 3**, respectively. Constituents that do not have a screening value associated with them on **Table 1** are being tracked for changes in concentration. A cumulative tabular summary of the natural gas detections is presented in **Table 4**. A tabular summary of all the soil vapor analytical results is presented in **Appendix E**. The analytical results for the soil vapor samples collected during this quarterly sampling event can be viewed in **Appendix D**.

Benzene was the only VOC which exceeded its relevant screening criterion of either 41 mg/m³ for residential areas or 300 mg/m³ for commercial/industrial areas. Therefore, benzene was selected as the key analyte to characterize soil vapor, in the paragraphs below organized by the Village, the Public Works Yard, and WRR. In addition, the data presentation is further grouped

by depth. While 0-10 feet bgs is commonly used to represent vapor intrusion into basements, the following paragraphs group data between 0 to 15 ft bgs and below 15 feet bgs. This was done in order to address a few VMPs in the 12 to 14 foot range.

Village

Benzene concentrations from locations within the Village ranged from an estimated 0.0079 mg/ m³ (VMP-1-8.5) to 28 mg/m³ (VMP-4-12) in the upper samples (<15 feet bgs). Benzene concentrations from the deeper samples (>15 ft bgs) range from an estimated 0.013 mg/ m³ (VMP-8-23.5) to an estimated 490 mg/m³ (VMP-4-23.5).

The results of screening for samples collected in the Village against residential screening criterion indicate that the vapors in the upper 15 feet are less than residential screening criterion (41 mg/m³). Four of the sample points with the soil vapor ports below 15 feet exceeded the residential screening criterion during this sampling event. The cumulative results for benzene in soil vapor for samples collected in the Village are depicted in **Figure 7**.

Public Works Yard

Benzene concentrations from locations within the Public Works Yard ranged from 0.0086 mg/m³ (VMP-17-5) to 52 mg/m³ (VMP-14-11.5) in the upper samples (<15 feet bgs). Benzene concentrations from the deeper samples (>15 ft bgs) range from an estimated 0.019 mg/ m³ (VMP-10-20) to 37,000 mg/m³ (VMP-14-20).

The results of screening for samples collected in the Public Works Yard indicate that the vapor concentrations in the upper 15 feet were less than commercial/industrial screening criterion (300 mg/m³) during this sampling event. Two of the sample points with the soil vapor ports below 15 feet exceeded the commercial/industrial screening criterion during this sampling event. The cumulative results for benzene in soil vapor for samples collected in the Public Works Yard are depicted in **Figure 8**.

WRR

Benzene concentrations from locations within the WRR ranged from 16 mg/m³ (VMP-16-13.5) to 4,100 mg/m³ (VMP-12-11.5) in the upper samples (<15 feet bgs). Benzene concentrations from the deeper samples (>15 ft bgs) range from 27 mg/ m³ (VMP-16-19) to 14,000 mg/m³ (VMP-12-25).

The results of screening for samples collected in the WRR indicate that the vapor concentrations in the upper 15 feet exceed the commercial/industrial screening criterion (300 mg/m³) at one of four ports (VMP-12-11.5 ft). One of the two sample locations with the soil vapor ports below 15

feet exceeded the commercial/industrial screening criterion during this sampling event (VMP-12-25 ft). The cumulative results for benzene in soil vapor for samples collected in the WRR are depicted in **Figure 9**.

Natural Gas Data

Natural gas data in general, indicate that the concentration of methane decreases as one goes from deeper to shallower depths which is opposite for oxygen concentrations that increase as one goes from deeper to shallower depths (methane and oxygen are generally inversely correlated in soil vapor). The higher oxygen levels (>5%) in the shallow depths with negligible methane indicate an environment capable of supporting aerobic biodegradation.

4.2 DISCUSSION OF ADDITIONAL DATA NEEDS

Comment number 2 in IEPA's August 5, 2010 letter describes the need to delineate the extent of impacted soil vapors to TACO criteria.

The Public Works Yard and the WRR are the only areas in which soil vapor results exceed or have exceeded relevant criteria in the upper 15 feet below ground surface (e.g., <10 feet bgs is generally the depth of interest for vapor intrusion into occupied structures). In samples collected to date, none of the eleven vapor monitoring locations in the Village have displayed shallow soil gas exceedances of the benzene screening criterion. **Figure 10** depicts the vertical distribution of benzene along the cross-section from VMP-1 to VMP-11.

While there are exceedences of the benzene screening criterion (two of six locations) in and around the Public Works Yard, the points are located in the southwest corner of the yard (**Figure 8**). As such, any additional delineation would occur in an undeveloped nonresidential portion of the Village of Roxana and this is not necessary.

However, to better depict the distribution of petroleum vapors in the subsurface west of Chaffer Street, five additional vapor monitoring points (with ports at four depths) are proposed, as depicted on **Figure 11**.

4.3 PROPOSED REVISIONS TO THE PROGRAM

SOPUS proposes the following revisions to the sampling program, starting with the 1st Quarter 2011 sampling event:

- Continue quarterly sampling and reporting of the existing vapor monitoring point network, however limit sampling to the two upper ports at each location (samples within the upper 15 feet). Samples from these depths are most relevant with respect to the potential for vapor intrusion.

- Incorporate sampling at the newly installed ports into the periodic sampling program.
- Remove VMP-12 and -16 from the sampling program. These VMPs are located in undeveloped areas of the WRR, and as such they do not provide substantive information with respect to vapor intrusion.
- Replace the FID with the Landtec GEM 2000 landfill gas meter. The FID will respond to both methane and petroleum hydrocarbons, which can be measured more reliably with the Landtec methane readings and/or the PID readings.

URS conducted 3rd quarter soil vapor sampling effort on behalf of SOPUS in the Village of Roxana (both the Village and the Public Works Yard) and a limited portion of the WRR. The following conclusions are based on the data collected as part of this work, as integrated with the results from previous work.

- Soil vapor samples were collected from 19 locations and 54 ports during the 3rd quarter soil vapor sampling. Some of these locations coincide with areas of the highest observed groundwater impact.
- The hydrocarbon vapors diffuse and biodegrade upwards through the soil, so as expected the highest concentrations are at depth and decrease closer to the surface.
- Within the Village, benzene concentrations range from ppb in the shallow samples to hundreds of ppm in deeper samples. The residential screening criterion (41 mg/m³) was not exceeded in the shallow (<15 ft bgs) samples.
- Within both the Public Works Yard and the WRR, benzene concentrations range from ppb in the shallow samples to thousands of ppm in deeper samples. The commercial/industrial screening criterion exceeds or has been exceeded in three shallow samples (VMP-13 and VMP-14 at the Public Works Yard and VMP-12 at the WRR) where no occupied structures are located.

SOPUS recommends the following actions be implemented beginning with the 1Q11 sampling event:

- Continue quarterly sampling and reporting of the existing vapor monitoring point network, however limit sampling to the two upper ports at each location (samples within the upper 15 feet). Samples from these depths are most relevant with respect to vapor intrusion.
- Install and begin sampling vapor monitoring points at five additional locations to better delineate the horizontal extent of vapor impacts in the Village.
- Remove VMP-12 and -16 from the sampling program. These VMPs are located in undeveloped areas of the WRR, and as such they do not provide substantive information with respect to vapor intrusion.
- Replace the FID with the Landtec GEM 2000 landfill gas meter. The FID will respond to both methane and petroleum hydrocarbons, which can be measured more reliably with the Landtec for methane readings and/or the PID for hydrocarbon readings.

- Illinois Environmental Protection Agency (IEPA), 2010; (IEPA 2010); *Letter providing approval with comments the SOPUS 2010 Delineation Report*. Issued to Shell Oil Products US (SOPUS), dated August 5, 2010.
- Shell Oil Products US (SOPUS), 2008 (SOPUS, 2008); *Dissolved Phase Groundwater Investigation Work Plan – Roxana, Illinois*; Prepared by URS Corporation (URS); dated September 5, 2008.
- Shell Oil Products US (SOPUS), 2009 (SOPUS, 2009a); *Subsurface Investigation – Route 111/Rand Avenue Vicinity Investigation – Roxana, Illinois*; Prepared by URS Corporation (URS); dated January 21, 2009.
- Shell Oil Products US (SOPUS), 2009 (SOPUS, 2009b); *Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Work Plan – Roxana, Illinois*; Prepared by URS Corporation (URS); dated January 21, 2009.
- Shell Oil Products US (SOPUS), 2010; (SOPUS, 2010a); *Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Report - Roxana, Illinois*; Prepared by URS Corporation (URS); dated February 2010.
- Shell Oil Products US (SOPUS), 2010; (SOPUS, 2010b); *Addendum to February 2010 Report - Supplemental Investigation Activities - Roxana, Illinois*; Prepared by URS Corporation (URS); dated September 20, 2010.
- URS Corporation (URS), 2010 (URS, 2010a); *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan – Roxana, Illinois*; dated August 2010.
- URS Corporation (URS), 2010 (URS, 2010b); *ConocoPhillips Environmental and Geotechnical Work 2010 Health and Safety Plan – WRB Refining LLC Wood River Refinery*; dated March 2010.
- US Environmental Protection Agency (USEPA), 2008; *Contract Laboratory Program National Functional Guidelines for Organic Methods Data Review*

TABLE 1
SOIL VAPOR SCREENING CRITERIA

Chemical	Residential (mg/m ³)	Industrial/ Commercial (mg/m ³)
TO-15 Analytes		
Acetone	750000	750000
Benzene	41	300
Bromodichloromethane	450000	450000
Bromoform	1800	13300
Bromomethane	830	5000
1,3-Butadiene		
2-Butanone	440000	2700000
Carbon disulfide	81000	500000
Carbon tetrachloride	24	180
Chlorobenzene	8300	50600
Chlorodibromomethane	57000	57000
Chloroethane		
Chloroform	12	87
Chloromethane		
Allyl chloride (3-Chloropropene)		
alpha-Chlorotoluene		
Cyclohexane		
1,2-Dibromo-3-chloropropane (DBCP)	0.17	1.3
1,2-Dibromoethane	1.6	12
1,2-Dichlorobenzene	11000	11000
1,3-Dichlorobenzene		
1,4-Dichlorobenzene	317	270
1,4-Dioxane	15	110
1,1-Dichloroethane	81000	500000
1,2-Dichloroethane	10	77
1,1-Dichloroethene	240	1600
cis-1,2-Dichloroethene	27000	1100000
trans-1,2-Dichloroethene	10000	63000
Dichloromethane (Methylene chloride)	590	4400
1,2-Dichloropropane	7.2	53
cis-1,3-Dichloropropene	110	830
trans-1,3-Dichloropropene	110	830
Ethanol		
Ethylbenzene	59000	59000
4-Ethyltoluene		
Freon 11		
Freon 113		
Freon 114		
Freon 12		
Heptachlor	0.97	7.1
Heptane		
Hexachlorobutadiene		
Hexane		
2-Hexanone (Methyl N-Butyl Ketone)		
Isopropylbenzene (Cumene)	30000	30000
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
Methyl tert-Butyl Ether (MTBE)	350000	1200000
n-Propylbenzene		

TABLE 1
SOIL VAPOR SCREENING CRITERIA

Chemical	Residential (mg/m ³)	Industrial/ Commercial (mg/m ³)
TO-15 Analytes		
2-Propanol		
Styrene	34000	34000
Tetrachloroethene	66	490
1,1,2,2-Tetrachloroethane		
Tetrahydrofuran		
Toluene	140000	140000
1,2,4-Trichlorobenzene	1600	4300
Trichloroethene	180	1300
1,1,1-Trichloroethane (Methyl chloroform)	770000	870000
1,1,2-Trichloroethane	170000	170000
Trichloroflouromethane	97000	595000
1,2,4-Trimethylbenzene		
1,3,5-Trimethylbenzene		
2,2,4-Trimethylpentane		
Vinyl chloride	30	440
Xylenes (total)	16000	49000
m,p-Xylene	16000	52000
o-Xylenes	17000	52000

Note:

1. Screening criteria source: Illinois Pollution Control Board, Notice of Proposed Amendments - Tiered Approach to Corrective Action (TACO) Title 35 - Part 742. Table G: Tier 1 Indoor Inhalation Remediation Objectives for Residential and Industrial/Commercial Properties for the Indoor Inhalation Exposure Route

TABLE 2
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS
VILLAGE - VOCS

Location	Depth	Sample Date	Sample ID	Acetone			Benzene			Bromodichloromethane			Bromomethane			1,3-Butadiene			2-Butanone			Carbon disulfide			Carbon tetrachloride			Chlorobenzene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				750,000 mg/m³			41 mg/m³			450,000 mg/m³			830 mg/m³			440,000 mg/m³			81,000 mg/m³			24 mg/m³			8,300 mg/m³					
VMP-1	5 ft	11/2/2009	VMP-1-5	<1.1	U		<0.38	U		<0.8	U		<0.46	U		<0.26	U		<0.35	U		<0.37	U		<0.75	U		<0.55	U	
		8/25/2010	VMP-1-5-082510	0.068			0.044			<0.028	U		<0.016	U		<0.0094	U		0.0066	J		0.0035	J		<0.027	U		<0.02	U	
	8.5 ft	11/2/2009	VMP-1-8.5	<1.6	U		<0.52	U		<1.1	U		<0.63	U		<0.36	U		<0.48	U		<0.51	U		<1	U		<0.75	U	
		8/25/2010	VMP-1-8.5-082510	0.054	J		0.0079	J		<0.086	U		<0.05	U		<0.028	U		<0.038	U		0.019	J		<0.081	U		<0.059	U	
	23.5 ft	11/2/2009	VMP-1-23.5	<3.8	U		<1.3	U		<2.6	U		<1.5	U		<0.88	U		<1.2	U		<1.2	U		<2.5	U		<1.8	U	
		8/30/2010	VMP - 1 - 23.5 - 083010	<4.3	U		1.4			<3	U		<1.7	U		<0.99	U		<1.3	U		<1.4	U		<2.8	U		<2.1	U	
38.5 ft	11/2/2009	VMP-1-38.5	<11	U		3.8			<7.5	U		<4.3	U		420			<3.3	U		<3.5	U		<7	U		<5.2	U		
VMP-2	5 ft	11/2/2009	VMP-2-5	<1.4	U		<0.46	U		<0.97	U		<0.56	U		<0.32	U		<0.43	U		<0.45	U		<0.92	U		<0.67	U	
		8/31/2010	VMP - 2 - 5 - 083110	<4.3	U		0.89	J		<3	U		<1.7	U		<0.99	U		<1.3	U		<1.4	U		<2.8	U		<2.1	U	
	8.5 ft	11/3/2009	VMP-2-8.5	<0.48	U		<0.16	U		<0.34	U		<0.2	U		<0.11	U		<0.15	U		<0.16	U		<0.32	U		<0.23	U	
		11/3/2009	VMP-2-8.5-D	<0.51	U		<0.17	U		<0.36	U		<0.21	U		<0.12	U		<0.16	U		<0.17	U		<0.34	U		<0.25	U	
	8/31/2010	VMP - 2 - 8.5 - 083110	<4.4	U		1.4			<3.1	U		<1.8	U		<1	U		<1.4	U		<1.4	U		<2.9	U		<2.1	U		
	22 ft	11/3/2009	VMP-2-22	<2.7	U		<0.89	U		<1.9	U		<1.1	U		<0.62	U		<0.82	U		<0.87	U		<1.8	U		<1.3	U	
		8/31/2010	VMP - 2 - 22 - 083110	<6.7	U		1.7	J		<4.7	U		<2.7	U		<1.6	U		<2.1	U		<2.2	U		<4.4	U		<3.2	U	
	42 ft	11/3/2009	VMP-2-42	<52	U		84			<37	U		<21	U		<12	U		<16	U		<17	U		<35	U		<25	U	
VMP-3	5 ft	11/3/2009	VMP-3-5	<0.051	U		<0.017	U		<0.036	U		<0.021	U		<0.012	U		<0.016	U		<0.017	U		<0.034	U		<0.025	U	
		9/9/2010	VMP-3-5-090910	<13	U		7.8			<8.9	U		<5.2	U		<2.9	U		<3.9	U		<4.1	U		<8.4	U		<6.1	U	
	10 ft	6/21/2010	VMP-3-10	<14	U		8.6			<10	U		<5.9	U		<3.4	U		<4.5	U		<4.7	U		<9.5	U		<7	U	
		9/10/2010	VMP 3-22-091010	8.9	J		14			<28	U		<16	U		<9.4	U		<12	U		<13	U		<27	U		<20	U	
	9/20/2010	VMP-3-10-092010	<29	U		9	J		<21	U		<12	U		<6.8	U		<9.1	U		<9.6	U		<20	U		<14	U		
	22 ft	11/4/2009	VMP-3-22	<37	U		52			<26	U		<15	U		<8.6	U		<11	U		<12	U		<24	U		<18	U	
		9/20/2010	VMP-3-22-092010	<39	U		34			<27	U		<16	U		<9	U		<12	U		<13	U		<26	U		<19	U	
	31.5 ft	11/4/2009	VMP-3-31.5	<59	U		240			<42	U		<24	U		<14	U		<18	U		<19	U		<39	U		<28	U	
9/9/2010		VMP-3-31.5-090910	<72	U		210			<51	U		<30	U		<17	U		<22	U		<24	U		<48	U		<35	U		
39 ft	11/4/2009	VMP-3-39	<120	U		240			<83	U		<48	U		<27	U		<36	U		<38	U		<78	U		<57	U		
VMP-4	5 ft	11/5/2009	VMP-4-5	<0.12	U		<0.04	U		<0.085	U		<0.049	U		<0.028	U		<0.037	U		<0.039	U		<0.08	U		<0.058	U	
		8/25/2010	VMP-4-5-082510	<0.68	U		0.27			<0.48	U		<0.28	U		<0.16	U		<0.21	U		<0.22	U		<0.45	U		<0.33	U	
	12 ft	11/5/2009	VMP-4-12	<2	U		3.2			<1.4	U		<0.82	U		<0.47	U		<0.62	U		<0.66	U		<1.3	U		<0.97	U	
		8/25/2010	VMP-4-12-082510	<12	U		28			<8.4	U		<4.9	U		<2.8	U		<3.7	U		<3.9	U		<7.9	U		<5.8	U	
	23.5 ft	11/5/2009	VMP-4-23.5	<92	U		540			<65	U		<38	U		<21	U		<29	U		<30	U		<61	U		<45	U	
8/31/2010		VMP - 4 - 23.5 - 083110	<14	U		490		J	<9.7	U		<5.6	U		<3.2	U		<4.3	U		<4.5	U		<9.1	U		<6.6	U		
39 ft	11/5/2009	VMP-4-39	<71	U		660			<50	U		<29	U		<16	U		<22	U		<23	U		<47	U		<34	U		
VMP-5	5 ft	11/5/2009	VMP-5-5	<2.1	U		1.5			<1.5	U		<0.87	U		<0.5	U		<0.66	U		<0.7	U		<1.4	U		<1	U	
		9/9/2010	VMP-5-5-090910	<25	U		7.6	J		<18	U		<10	U		<5.8	U		<7.8	U		<8.2	U		<17	U		<12	U	
	12.5 ft	11/6/2009	VMP-5-12.5	<2.4	U		5.8			<1.7	U		<1	U		<0.57	U		<0.76	U		<0.8	U		<1.6	U		<1.2	U	
		11/6/2009	VMP-5-12.5-D	<5.5	U		6			<3.9	U		<2.2	U		<1.3	U		<1.7	U		<1.8	U		<3.6	U		<2.7	U	
	9/9/2010	VMP-5-12.5-090910	7.6	J		11			<8.8	U		<5.1	U		<2.9	U		<3.9	U		<4.1	U		<8.3	U		<6.1	U		
	31 ft	11/6/2009	VMP-5-31	<23	U		160			<16	U		<9.2	U		<5.3	U		<7	U		<7.4	U		<15	U		<11	U	
		9/9/2010	VMP-5-31-090910	<52	U		200			<37	U		<21	U		<12	U		<16	U		<17	U		<35	U		<25	U	
40 ft	11/6/2009	VMP-5-40	<31	U		170			<22	U		<13	U		<7.2	U		<9.7	U		<10</									

TABLE 2 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS VILLAGE - VOCS																														
Location	Depth	Sample Date	Sample ID	Chloroform			Chloromethane			alpha-Chlorotoluene			Cyclohexane			1,2-Dibromoethane			1,2-Dichlorobenzene			1,3-Dichlorobenzene			1,4-Dichlorobenzene			1,1-Dichloroethane		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				12 mg/m³									1.6 mg/m³			11,000 mg/m³						317 mg/m³			81,000 mg/m³					
VMP-1	5 ft	11/2/2009	VMP-1-5	<0.58	U		<0.98	U		<0.62	U		18			<0.91	U		<0.72	U		<0.72	U		<0.72	U		<0.48	U	
		8/25/2010	VMP-1-5-082510	<0.021	U		<0.035	U		<0.022	U		0.02			<0.033	U		<0.026	U		<0.026	U		<0.026	U		<0.017	U	
	8.5 ft	11/2/2009	VMP-1-8.5	<0.8	U		<1.4	U		<0.85	U		14			<1.2	U		<0.98	U		<0.98	U		<0.98	U		<0.66	U	
		8/25/2010	VMP-1-8.5-082510	<0.063	U		<0.11	U		<0.066	U		<0.044	U		<0.099	U		<0.077	U		<0.077	U		<0.077	U		<0.052	U	
	23.5 ft	11/2/2009	VMP-1-23.5	<1.9	U		<3.3	U		<2	U		66			<3	U		<2.4	U		<2.4	U		<2.4	U		<1.6	U	
38.5 ft	8/30/2010	VMP - 1 - 23.5 - 083010	<2.2	U		<3.7	U		<2.3	U		130			<3.4	U		<2.7	U		<2.7	U		<2.7	U		<1.8	U		
VMP-2	5 ft	11/2/2009	VMP-1-38.5	<5.5	U		<9.2	U		<5.8	U		380			<8.6	U		<6.7	U		<6.7	U		<6.7	U		<4.5	U	
		11/2/2009	VMP-2-5	<0.71	U		<1.2	U		<0.75	U		8			<1.1	U		<0.87	U		<0.87	U		<0.87	U		<0.59	U	
	8.5 ft	8/31/2010	VMP - 2 - 5 - 083110	<2.2	U		<3.7	U		<2.3	U		28			<3.4	U		<2.7	U		<2.7	U		<2.7	U		<1.8	U	
		11/3/2009	VMP-2-8.5	<0.25	U		<0.42	U		<0.26	U		0.24			<0.39	U		<0.31	U		<0.31	U		<0.31	U		<0.21	U	
		11/3/2009	VMP-2-8.5-D	<0.26	U		<0.45	U		<0.28	U		0.29			<0.41	U		<0.32	U		<0.32	U		<0.32	U		<0.22	U	
		8/31/2010	VMP - 2 - 8.5 - 083110	<2.2	U		<3.8	U		<2.4	U		57			<3.5	U		<2.8	U		<2.8	U		<2.8	U		<1.9	U	
	22 ft	11/3/2009	VMP-2-22	<1.4	U		<2.3	U		<1.4	U		11			<2.2	U		<1.7	U		<1.7	U		<1.7	U		<1.1	U	
		8/31/2010	VMP - 2 - 22 - 083110	<3.4	U		<5.8	U		<3.6	U		81			<5.4	U		<4.2	U		<4.2	U		<4.2	U		<2.8	U	
42 ft	11/3/2009	VMP-2-42	<27	U		<45	U		<28	U		920			<42	U		<33	U		<33	U		<33	U		<22	U		
VMP-3	5 ft	11/3/2009	VMP-3-5	<0.026	U		<0.045	U		<0.028	U		0.23			<0.041	U		<0.032	U		<0.032	U		<0.032	U		<0.022	U	
		9/9/2010	VMP-3-5-090910	<6.5	U		<11	U		<6.9	U		210			<10	U		<8	U		<8	U		<8	U		<5.4	U	
	10 ft	6/21/2010	VMP-3-10	<7.4	U		<12	U		<7.8	U		1000			<12	U		<9.1	U		<9.1	U		<9.1	U		<6.1	U	
		9/10/2010	VMP 3-22-091010	<21	U		<35	U		<22	U		970			<33	U		<26	U		<26	U		<26	U		<17	U	
	22 ft	9/20/2010	VMP-3-10-092010	<15	U		<26	U		<16	U		840			<24	U		<19	U		<19	U		<19	U		<12	U	
		11/4/2009	VMP-3-22	<19	U		<32	U		<20	U		980			<30	U		<23	U		<23	U		<23	U		<16	U	
	31.5 ft	9/20/2010	VMP-3-22-092010	<20	U		<34	U		<21	U		1100			<31	U		<24	U		<24	U		<24	U		<16	U	
		11/4/2009	VMP-3-31.5	<30	U		<51	U		<32	U		920			<48	U		<37	U		<37	U		<37	U		<25	U	
39 ft	9/9/2010	VMP-3-31.5-090910	<37	U		<63	U		<39	U		1100			<58	U		<46	U		<46	U		<46	U		<31	U		
11/4/2009	VMP-3-39	<60	U		<100	U		<64	U		790			<95	U		<74	U		<74	U		<74	U		<50	U			
VMP-4	5 ft	11/5/2009	VMP-4-5	<0.062	U		<0.1	U		<0.065	U		5.7			<0.097	U		<0.076	U		<0.076	U		<0.076	U		<0.051	U	
		8/25/2010	VMP-4-5-082510	<0.35	U		<0.59	U		<0.37	U		40			<0.55	U		<0.43	U		<0.43	U		<0.43	U		<0.29	U	
	12 ft	11/5/2009	VMP-4-12	<1	U		<1.7	U		<1.1	U		170			<1.6	U		<1.3	U		<1.3	U		<1.3	U		<0.85	U	
		8/25/2010	VMP-4-12-082510	<6.2	U		<10	U		<6.5	U		880			<9.7	U		<7.6	U		<7.6	U		<7.6	U		<5.1	U	
	23.5 ft	11/5/2009	VMP-4-23.5	<47	U		<80	U		<50	U		2500			<74	U		<58	U		<58	U		<58	U		<39	U	
8/31/2010		VMP - 4 - 23.5 - 083110	<7	U		<12	U		<7.5	U		3000		J	<11	U		<8.7	U		<8.7	U		<8.7	U		<5.8	U		
39 ft	11/5/2009	VMP-4-39	<36	U		<62	U		<38	U		2400			<57	U		<45	U		<45	U		<45	U		<30	U		
VMP-5	5 ft	11/5/2009	VMP-5-5	<1.1	U		<1.8	U		<1.2	U		78			<1.7	U		<1.3	U		<1.3	U		<1.3	U		<0.91	U	
		9/9/2010	VMP-5-5-090910	<13	U		<22	U		<14	U		400			<20	U		<16	U		<16	U		<16	U		<11	U	
	12.5 ft	11/6/2009	VMP-5-12.5	<1.2	U		<2.1	U		<1.3	U		240			<2	U		<1.6	U		<1.6	U		<1.6	U		<1	U	
		11/6/2009	VMP-5-12.5-D	<2.8	U		<4.8	U		<3	U		240			<4.4	U		<3.5	U		<3.5	U		<3.5	U		<2.3	U	
		9/9/2010	VMP-5-12.5-090910	<6.4	U		<11	U		<6.8	U		360			<10	U		<7.9	U		<7.9	U		<7.9	U		<5.3	U	
	31 ft	11/6/2009	VMP-5-31	<12	U		<20	U		<12	U		1600			<18	U		<14	U		<14	U		<14	U		<9.6	U	
		9/9/2010	VMP-5-31-090910	<27	U		<45	U		<28	U		1600			<42	U		<33	U		<33	U		<33	U		<22	U	
40 ft	11/6/2009																													

TABLE 2 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS VILLAGE - VOCS																											
Location	Depth	Sample Date	Sample ID	cis-1,2-Dichloroethene			Dichlorodifluoromethane			1,2-Dichloroethane			1,2-Dichloropropane			1,4-Dioxane			Ethanol			Ethylbenzene			4-Ethyltoluene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				27,000 mg/m³						10 mg/m³			7.2 mg/m³			15 mg/m³						59,000 mg/m³					
VMP-1	5 ft	11/2/2009	VMP-1-5	<0.47	U		<0.59	U		<0.48	U		<0.55	U		<1.7	U		<0.9	U		<0.52	U		<0.58	U	
		8/25/2010	VMP-1-5-082510	<0.017	U		0.0028	J		<0.017	U		<0.02	U		0.015	J		0.03	J		<0.018	U		<0.021	U	
	8.5 ft	11/2/2009	VMP-1-8.5	<0.65	U		<0.81	U		<0.66	U		<0.76	U		<2.4	U		<1.2	U		<0.71	U		<0.8	U	
		8/25/2010	VMP-1-8.5-082510	<0.051	U		<0.064	U		<0.052	U		<0.059	U		<0.18	U		<0.097	U		<0.056	U		<0.063	U	
	23.5 ft	11/2/2009	VMP-1-23.5	<1.6	U		<2	U		<1.6	U		<1.8	U		<5.7	U		<3	U		<1.7	U		<1.9	U	
		8/30/2010	VMP - 1 - 23.5 - 083010	<1.8	U		<2.2	U		<1.8	U		<2.1	U		<6.5	U		<3.4	U		<1.9	U		<2.2	U	
VMP-2	5 ft	11/2/2009	VMP-2-5	<0.58	U		<0.72	U		<0.59	U		<0.67	U		<2.1	U		<1.1	U		<0.63	U		<0.72	U	
		8/31/2010	VMP - 2 - 5 - 083110	<1.8	U		<2.2	U		<1.8	U		<2.1	U		<6.5	U		<3.4	U		<1.9	U		<2.2	U	
	8.5 ft	11/3/2009	VMP-2-8.5	<0.2	U		<0.25	U		<0.21	U		<0.24	U		<0.74	U		<0.38	U		<0.22	U		<0.25	U	
		11/3/2009	VMP-2-8.5-D	<0.21	U		<0.27	U		<0.22	U		<0.25	U		<0.78	U		<0.41	U		<0.23	U		<0.26	U	
		8/31/2010	VMP - 2 - 8.5 - 083110	<1.8	U		<2.3	U		<1.9	U		<2.1	U		<6.6	U		<3.5	U		<2	U		<2.3	U	
	22 ft	11/3/2009	VMP-2-22	<1.1	U		<1.4	U		<1.1	U		<1.3	U		<4	U		<2.1	U		<1.2	U		<1.4	U	
8/31/2010		VMP - 2 - 22 - 083110	<2.8	U		<3.5	U		<2.8	U		<3.2	U		<10	U		<5.3	U		<3.1	U		<3.5	U		
VMP-3	5 ft	11/3/2009	VMP-3-5	<0.021	U		<0.027	U		<0.022	U		<0.025	U		<0.078	U		<0.041	U		0.065			0.035		
		9/9/2010	VMP-3-5-090910	<5.3	U		<6.6	U		<5.4	U		<6.1	U		<19	U		<10	U		<5.8	U		<6.5	U	
	10 ft	6/21/2010	VMP-3-10	<6	U		<7.5	U		<6.1	U		<7	U		<22	U		<11	U		<6.6	U		3.1	J	
		9/10/2010	VMP 3-22-091010	<17	U		<21	U		<17	U		<20	U		<61	U		<32	U		<18	U		<21	U	
	22 ft	9/20/2010	VMP-3-10-092010	<12	U		<15	U		<12	U		<14	U		<45	U		<23	U		<13	U		<15	U	
		11/4/2009	VMP-3-22	<15	U		<19	U		<16	U		<18	U		<56	U		<29	U	UJ	<17	U		<19	U	
31.5 ft	9/20/2010	VMP-3-22-092010	<16	U		<20	U		<16	U		<19	U		<58	U		<31	U		9.4	J		7.7	J		
	11/4/2009	VMP-3-31.5	<24	U		<31	U		<25	U		<29	U		<89	U		<47	U		78			<30	U		
	9/9/2010	VMP-3-31.5-090910	<30	U		<38	U		<31	U		<35	U		<110	U		<57	U		57			53			
39 ft	11/4/2009	VMP-3-39	<49	U		<61	U		<50	U		<57	U		<180	U		<93	U		70			<61	U		
VMP-4	5 ft	11/5/2009	VMP-4-5	<0.05	U		<0.062	U		<0.051	U		<0.058	U		<0.18	U		<0.095	U		<0.055	U		<0.062	U	
		8/25/2010	VMP-4-5-082510	<0.28	U		<0.36	U		<0.29	U		<0.33	U		<1	U		<0.54	U		<0.31	U		0.061	J	
	12 ft	11/5/2009	VMP-4-12	<0.84	U		<1	U		<0.85	U		<0.98	U		<3	U		<1.6	U		<0.92	U		1.2		
		8/25/2010	VMP-4-12-082510	<5	U		<6.2	U		<5.1	U		<5.8	U		<18	U		<9.5	U		7.8			3.6	J	
	23.5 ft	11/5/2009	VMP-4-23.5	<38	U		<48	U		<39	U		<45	U		<140	U		<73	U		720			110		
		8/31/2010	VMP - 4 - 23.5 - 083110	<5.7	U		<7.1	U		<5.8	U		<6.7	U		<21	U		<11	U		960		J	230		J
39 ft	11/5/2009	VMP-4-39	<30	U		<37	U		<30	U		<34	U		<110	U		<56	U		620			120			
VMP-5	5 ft	11/5/2009	VMP-5-5	<0.89	U		<1.1	U		<0.91	U		<1	U		<3.2	U		<1.7	U		<0.97	U		<1.1	U	
		9/9/2010	VMP-5-5-090910	<10	U		<13	U		<11	U		<12	U		<38	U		<20	U		<11	U		20		
	12.5 ft	11/6/2009	VMP-5-12.5	<1	U		<1.3	U		<1	U		<1.2	U		<3.7	U		<1.9	U		<1.1	U		<1.3	U	
		11/6/2009	VMP-5-12.5-D	<2.3	U		<2.9	U		<2.3	U		<2.7	U		<8.4	U		<4.4	U		<2.5	U		<2.8	U	
		9/9/2010	VMP-5-12.5-090910	<5.2	U		<6.5	U		<5.3	U		<6.1	U		<19	U		<9.9	U		<5.7	U		9.2		
	31 ft	11/6/2009	VMP-5-31	<9.4	U		<12	U		<9.6	U		<11	U		<34	U		<18	U		<10	U		<12	U	
9/9/2010		VMP-5-31-090910	<22	U		<27	U		<22	U		<25	U		<79	U		<41	U		<24	U		<27	U		
40 ft	11/6/2009	VMP-5-40	<13	U		<16	U		<13	U		<15	U		<47	U		<25	U		<14	U		<16	U		
VMP-6	5 ft	11/6/2009	VMP-6-5	<1.6	U		<2	U		<1.6	U		<1.8	U		<5.7	U		<3	U		6.5		J	<1.9	U	
		9/8/2010	VMP-6-5-090810	<0.87	U		<1.1	U		<0.89	U		<1	U		<3.2	U		<1.6	U		<0.96	U		1	J	
	10 ft	11/6/2009	VMP-6-10	<1.7	U		<2.1	U		<1.7	U		<2	U		<6.2	U		<3.2	U		5.2			<2.1	U	
		9/8/2010	VMP-6-10-090810	<0.94	U		<1.2	U		<0.96	U		<1.1	U		<3.4	U		<1.8	U		0.68	J	J	0.9	J	J
	31.5 ft	11/9/2009	VMP-6-31.5	<11	U		<14	U		<11	U		<13	U		<40	U		<21	U		180			37		
		9/8/2010	VMP-6-31.5-090810	<6.4	U		<8	U		<6.5	U		<7.4	U		<23	U		<12	U		160			16		
39 ft	11/9/2009	VMP-6-39	<13	U		<16	U		<13	U		<15	U		<46	U		<24	U		290			82			
VMP-7	5 ft	11/9/2009	VMP-7-5	<0.004	U		<0.005	U		<																	

TABLE 2
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS
VILLAGE - VOCS

Location	Depth	Sample Date	Sample ID	Freon 113			Heptane			Hexane			2-Hexanone			Isopropylbenzene			4-Methyl-2-pentanone			Methyl tert-Butyl Ether			Methylene chloride			
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	
Screening Criteria													30,000 mg/m³			350,000 mg/m³			590 mg/m³									
VMP-1	5 ft	11/2/2009	VMP-1-5	<0.91	U		3.8			53			<1.9	U		<0.58	U		<0.49	U		<0.43	U		<0.41	U		
		8/25/2010	VMP-1-5-082510	<0.032	U		<0.017	U		0.025			<0.07	U		<0.021	U		<0.017	U		<0.015	U		<0.015	U		
	8.5 ft	11/2/2009	VMP-1-8.5	<1.2	U		1.7			16			<2.7	U		<0.8	U		<0.67	U		<0.59	U		<0.57	U		
		8/25/2010	VMP-1-8.5-082510	<0.098	U		<0.053	U		<0.045	U		<0.21	U		<0.063	U		<0.053	U		<0.046	U		<0.045	U		
	23.5 ft	11/2/2009	VMP-1-23.5	<3	U		24			140			<6.5	U		<1.9	U		<1.6	U		<1.4	U		<1.4	U		
		8/30/2010	VMP - 1 - 23.5 - 083010	<3.4	U		44			260			<7.3	U		<2.2	U		<1.8	U		<1.6	U		<1.6	U		
VMP-2	5 ft	11/2/2009	VMP-2-5	<1.1	U		1.3			13			<2.4	U		<0.72	U		<0.6	U		<0.52	U		<0.5	U		
		8/31/2010	VMP - 2 - 5 - 083110	<3.4	U		<1.8	U		<1.6	U		<7.3	U		<2.2	U		<1.8	U		<1.6	U		<1.6	U		
	8.5 ft	11/3/2009	VMP-2-8.5	<0.39	U		<0.21	U		<0.18	U		<0.84	U		<0.25	U		<0.21	U		<0.18	U		<0.18	U	UJ	
		11/3/2009	VMP-2-8.5-D	<0.41	U		<0.22	U		<0.19	U		<0.88	U		<0.26	U		<0.22	U		<0.19	U		<0.19	U	UJ	
	22 ft	8/31/2010	VMP - 2 - 8.5 - 083110	<3.5	U		<1.9	U		38			<7.5	U		<2.3	U		<1.9	U		<1.6	U		<1.6	U		
		11/3/2009	VMP-2-22	<2.1	U		1.6			13			<4.6	U		<1.4	U		<1.1	U		<1	U		<0.97	U		
VMP-3	5 ft	8/31/2010	VMP - 2 - 22 - 083110	<5.4	U		<2.9	U		63			<12	U		<3.5	U		<2.9	U		<2.5	U		<2.4	U		
		11/3/2009	VMP-2-42	<42	U		1800			7000			<90	U		<27	U		<22	U		<20	U		<19	U		
	10 ft	11/3/2009	VMP-3-5	<0.041	U		0.16			0.58			<0.088	U		<0.026	U		<0.022	U		<0.019	U		<0.019	U	UJ	
		9/9/2010	VMP-3-5-090910	<10	U		4.8	J		110			<22	U		<6.5	U		<5.4	U		<4.8	U		<4.6	U		
	31.5 ft	6/21/2010	VMP-3-10	<12	U		86			1300			<25	U		2.8	J		<6.2	U		<5.5	U		<5.3	U		
		9/10/2010	VMP 3-22-091010	<32	U		87			1100			<70	U		5	J		<17	U		<15	U		<15	U		
VMP-4	5 ft	9/20/2010	VMP-3-10-092010	<24	U		48			660			<51	U		<15	U		<13	U		<11	U		<11	U		
		11/4/2009	VMP-3-22	<30	U		310			4900			<64	U		<19	U		<16	U		<14	U		<13	U		
	22 ft	9/20/2010	VMP-3-22-092010	<31	U		130			1500			<67	U		14	J		<17	U		<15	U		<14	U		
		11/4/2009	VMP-3-31.5	<48	U		870			18000	E	J	<100	U		<30	U		<25	U		<22	U		<22	U		
	39 ft	9/9/2010	VMP-3-31.5-090910	<58	U		1100			25000			<120	U		<37	U		<31	U		<27	U		<26	U		
		11/4/2009	VMP-3-39	<95	U		780			18000			<200	U		<61	U		<50	U		<44	U		<43	U		
VMP-5	5 ft	11/5/2009	VMP-4-5	<0.097	U		<0.052	U		0.54			<0.21	U		<0.062	U		<0.052	U		<0.046	U		<0.044	U		
		8/25/2010	VMP-4-5-082510	<0.55	U		1.7			13			<1.2	U		0.048	J		<0.29	U		<0.26	U		<0.25	U		
	12 ft	11/5/2009	VMP-4-12	<1.6	U		35			130			<3.4	U		<1	U		<0.86	U		<0.76	U		<0.73	U		
		8/25/2010	VMP-4-12-082510	<9.6	U		420			1200			<21	U		3.6	J		<5.2	U		<4.5	U		<4.4	U		
	23.5 ft	11/5/2009	VMP-4-23.5	<74	U		3600			14000			<160	U		<48	U		<40	U		<35	U		<34	U		
		8/31/2010	VMP - 4 - 23.5 - 083110	<11	U		4100		J	13000		J	<24	U		38		J	<5.9	U		<5.2	U		<5	U		
VMP-6	5 ft	11/5/2009	VMP-4-39	<57	U		3500			14000			<120	U		<37	U		<30	U		<27	U		<26	U		
		11/5/2009	VMP-5-5	<1.7	U		9.1			170			<3.7	U		<1.1	U		<0.92	U		<0.81	U		<0.78	U		
	12.5 ft	9/9/2010	VMP-5-5-090910	<20	U		140			1500			<43	U		<13	U		<11	U		<9.5	U		<9.2	U		
		11/6/2009	VMP-5-12.5	<2	U		46			650			<4.2	U		<1.3	U		<1	U		<0.93	U		<0.9	U		
	31 ft	11/6/2009	VMP-5-12.5-D	<4.4	U		47			640			<9.5	U		<2.8	U		<2.4	U		<2.1	U		<2	U		
		9/9/2010	VMP-5-12.5-090910	<10	U		120			1300			<22	U		<6.5	U		<5.4	U		<4.8	U		<4.6	U		
VMP-7	5 ft	11/6/2009	VMP-5-31	<18	U		910			4900			<39	U		<12	U		<9.7	U		<8.6	U		<8.3	U		
		9/9/2010	VMP-5-31-090910	<42	U		1300			7700			<90	U		<27	U		<22	U		<20	U		<19	U		
	40 ft	11/6/2009	VMP-5-40	<25	U		810			4400			<54	U		<16	U		<13	U		<12	U		<11	U		
		11/6/2009	VMP-6-5	<3	U		380		J	720		J	<6.5	U		2.7		J	<1.6	U		<1.4	U		<1.4	U		
	10 ft	9/8/2010	VMP-6-5-090810	<1.7	U		43			130			<3.6	U		<1.1	U		<0.9	U		<0.79	U		<0.76	U		
		11/6/2009	VMP-6-10	<3.3	U		480			900			<7	U		3.6			<1.8	U		<1.6	U		<1.5	U		
VMP-8	5 ft	9/8/2010	VMP-6-10-090810	<1.8	U		160		J	400		J	<3.9	U		0.54	J	J	<0.97	U		<0.86	U		<0.83	U		
		11/9/2009	VMP-6-31.5	<21	U		1800			3100			<46	U		18			<11	U		<10	U		<9.7	U	UJ	
	23.5 ft	9/8/2010	VMP-6-31.5-090810	<12	U		1900			3200			<26	U		19			<6.6	U		<5.8	U		<5.6	U		
		11/9/2009	VMP-6-39	<24	U		2400			4200			<52	U		24			<13	U		<11	U		<11	U	UJ	
	VMP-9	5 ft	11/9/2009	VMP-7-5	<0.008	U		0.091			0.11			<0.019	U		<0.005	U		<0.004	U		<0.004	U		<0.004	U	
			8/26/2010	VMP-7-5-082610	<0.01																							

TABLE 2 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS VILLAGE - VOCS																											
Location	Depth	Sample Date	Sample ID	2-Propanol			n-Propylbenzene			Styrene			Tetrachloroethene			Tetrahydrofuran			Toluene			1,2,4-Trichlorobenzene			Trichloroethene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria										34,000 mg/m³			66 mg/m³						140,000 mg/m³			1,600 mg/m³			180 mg/m³		
VMP-1	5 ft	11/2/2009	VMP-1-5	<1.2	U		<0.58	U		<0.51	U		<0.81	U		<0.35	U		0.63			<3.5	U		<0.64	U	
		8/25/2010	VMP-1-5-082510	<0.042	U		<0.021	U		<0.018	U		<0.029	U		<0.012	U		0.0031	J		<0.13	U		<0.023	U	
	8.5 ft	11/2/2009	VMP-1-8.5	<1.6	U		<0.8	U		<0.7	U		<1.1	U		<0.48	U		<0.62	U		<4.8	U		<0.88	U	
		8/25/2010	VMP-1-8.5-082510	<0.13	U		<0.063	U		<0.055	U		<0.087	U		<0.038	U		<0.048	U		<0.38	U		<0.069	U	
	23.5 ft	11/2/2009	VMP-1-23.5	<3.9	U		<1.9	U		<1.7	U		<2.7	U		<1.2	U		<1.5	U		<12	U		<2.1	U	
		8/30/2010	VMP - 1 - 23.5 - 083010	<4.4	U		<2.2	U		<1.9	U		<3	U		<1.3	U		<1.7	U		<13	U		<2.4	U	
	38.5 ft	11/2/2009	VMP-1-38.5	<11	U		<5.5	U		<4.8	U		<7.6	U		<3.3	U		<4.2	U		<33	U		<6	U	
VMP-2	5 ft	11/2/2009	VMP-2-5	<1.4	U		<0.72	U		<0.62	U		<0.99	U		<0.43	U		<0.55	U		<4.3	U		<0.78	U	
		8/31/2010	VMP - 2 - 5 - 083110	<4.4	U		<2.2	U		<1.9	U		<3	U		<1.3	U		<1.7	U		<13	U		<2.4	U	
	8.5 ft	11/3/2009	VMP-2-8.5	<0.5	U		<0.25	U		<0.22	U		<0.34	U		<0.15	U		<0.19	U		<1.5	U		<0.27	U	
		11/3/2009	VMP-2-8.5-D	<0.53	U		<0.26	U		<0.23	U		<0.37	U		<0.16	U		<0.2	U		<1.6	U		<0.29	U	
		8/31/2010	VMP - 2 - 8.5 - 083110	<4.5	U		<2.3	U		<2	U		<3.1	U		<1.4	U		<1.7	U		<14	U		<2.5	U	
	22 ft	11/3/2009	VMP-2-22	<2.8	U		<1.4	U		<1.2	U		<1.9	U		<0.82	U		<1	U		<8.3	U		<1.5	U	
		8/31/2010	VMP - 2 - 22 - 083110	<6.9	U		<3.5	U		<3	U		<4.8	U		<2.1	U		<2.6	U		<21	U		<3.8	U	
		42 ft	11/3/2009	VMP-2-42	<54	U		<27	U		<23	U		<37	U		<16	U		59			<160	U		<30	U
VMP-3	5 ft	11/3/2009	VMP-3-5	<0.053	U		<0.026	U		<0.023	U		<0.037	U		<0.016	U		<0.02	U		<0.16	U		<0.029	U	
		9/9/2010	VMP-3-5-090910	<13	U		<6.5	U		<5.7	U		<9	U		<3.9	U		<5	U		<39	U		<7.1	U	
	10 ft	6/21/2010	VMP-3-10	3.8	J		5.6	J		<6.4	U		<10	U		<4.5	U		<5.7	U		<45	U		<8.1	U	
		9/10/2010	VMP 3-22-091010	<42	U		7.2	J		<18	U		<29	U		<12	U		<16	U		<130	U		<23	U	
		9/20/2010	VMP-3-10-092010	<30	U		4.4	J		<13	U		<21	U		<9.1	U		9.9	J		<92	U		<17	U	
	22 ft	11/4/2009	VMP-3-22	<38	U		24			<16	U		<26	U		<11	U		<15	U		<120	U		<21	U	
		9/20/2010	VMP-3-22-092010	<40	U		29			<17	U		<28	U		<12	U		37			<120	U		<22	U	
	31.5 ft	11/4/2009	VMP-3-31.5	<61	U		<30	U		<26	U		<42	U		<18	U		25			<180	U		<33	U	
9/9/2010		VMP-3-31.5-090910	<75	U		17	J		<32	U		<52	U		<22	U		17	J		<220	U		<41	U		
	39 ft	11/4/2009	VMP-3-39	<120	U		<61	U		<53	U		<84	U		<36	U		<46	U		<370	U		<66	U	
VMP-4	5 ft	11/5/2009	VMP-4-5	<0.12	U		<0.062	U		<0.054	U		<0.086	U		<0.037	U		<0.048	U		<0.38	U	UJ	<0.068	U	
		8/25/2010	VMP-4-5-082510	<0.71	U		0.058	J		<0.31	U		<0.49	U		<0.21	U		<0.27	U		<2.1	U		<0.39	U	
	12 ft	11/5/2009	VMP-4-12	<2.1	U		<1	U		<0.9	U		<1.4	U		<0.62	U		<0.8	U		<6.3	U	UJ	<1.1	U	
		8/25/2010	VMP-4-12-082510	<12	U		4.2	J		<5.4	U		<8.5	U		<3.7	U		<4.7	U		<37	U		<6.8	U	
	23.5 ft	11/5/2009	VMP-4-23.5	<95	U		<48	U		<41	U		<66	U		<29	U		1400			<290	U		<52	U	
		8/31/2010	VMP - 4 - 23.5 - 083110	<14	U		69		J	<6.2	U		<9.8	U		<4.3	U		2000		J	<43	U		<7.8	U	
	39 ft	11/5/2009	VMP-4-39	<73	U		39			<32	U		<50	U		<22	U		420			<220	U		<40	U	
VMP-5	5 ft	11/5/2009	VMP-5-5	<2.2	U		<1.1	U		<0.95	U		<1.5	U		<0.66	U		<0.84	U		<6.6	U	UJ	<1.2	U	
		9/9/2010	VMP-5-5-090910	<26	U		4.8	J		<11	U		<18	U		<7.8	U		<9.9	U		<78	U		<14	U	
	12.5 ft	11/6/2009	VMP-5-12.5	<2.5	U		<1.3	U		<1.1	U		<1.8	U		<0.76	U		<0.97	U		<7.6	U		<1.4	U	
		11/6/2009	VMP-5-12.5-D	<5.7	U		<2.8	U		<2.5	U		<3.9	U		<1.7	U		<2.2	U		<17	U		<3.1	U	
		9/9/2010	VMP-5-12.5-090910	<13	U		2.1	J		<5.6	U		<9	U		<3.9	U		<5	U		<39	U		<7.1	U	
	31 ft	11/6/2009	VMP-5-31	<23	U		<12	U		<10	U		<16	U		<7	U		<9	U		<71	U		<13	U	
		9/9/2010	VMP-5-31-090910	<54	U		<27	U		<23	U		<37	U		<16	U		4.3	J		<160	U		<30	U	
	40 ft	11/6/2009	VMP-5-40	<32	U		<16	U		<14	U		<22	U		<9.7	U		<12	U		<97	U		<18	U	
VMP-6	5 ft	11/6/2009	VMP-6-5	<3.9	U		5.8		J	<1.7	U		<2.7	U		<1.2	U		<1.5	U		<12	U		<2.1	U	
		9/8/2010	VMP-6-5-090810	<2.2	U		<1.1	U		<0.94	U		<1.5	U		<0.65	U		<0.83	U		<6.5	U		<1.2	U	
	10 ft	11/6/2009	VMP-6-10	<4.2	U		8			<1.8	U		<2.9	U		<1.3	U		<1.6	U		<13	U		<2.3	U	
		9/8/2010	VMP-6-10-090810	<2.3	U		0.73	J	J	<1	U		<1.6	U		<0.7	U		<0.9	U		<7.1	U		<1.3	U	
	31.5 ft	11/9/2009	VMP-6-31.5	<28	U		44			<12	U		<19	U		<8.2	U		<10	U		<83	U		<151		

TABLE 2 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS VILLAGE - VOCS																											
Location	Depth	Sample Date	Sample ID	1,1,1-Trichloroethane			1,1,2-Trichloroethane			Trichlorofluoromethane			1,2,4-Trimethylbenzene			1,3,5-Trimethylbenzene			2,2,4-Trimethylpentane			m,p-Xylene			o-Xylene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				770,000 mg/m³			170,000 mg/m³			97,000 mg/m³									16,000 mg/m³			17,000 mg/m³					
VMP-1	5 ft	11/2/2009	VMP-1-5	<0.65	U		<0.65	U		<0.67	U		<0.58	U		<0.58	U		220			<0.52	U		<0.52	U	
		8/25/2010	VMP-1-5-082510	<0.023	U		<0.023	U		<0.024	U		<0.021	U		<0.021	U		0.74			0.0024	J		<0.018	U	
	8.5 ft	11/2/2009	VMP-1-8.5	<0.89	U		<0.89	U		<0.92	U		<0.8	U		<0.8	U		370			<0.71	U		<0.71	U	
		8/25/2010	VMP-1-8.5-082510	<0.07	U		<0.07	U		<0.072	U		<0.063	U		<0.063	U		4.2			<0.056	U		<0.056	U	
	23.5 ft	11/2/2009	VMP-1-23.5	<2.2	U		<2.2	U		<2.2	U		<1.9	U		<1.9	U		920			<1.7	U		<1.7	U	
		8/30/2010	VMP - 1 - 23.5 - 083010	<2.4	U		<2.4	U		<2.5	U		<2.2	U		<2.2	U		1600			<1.9	U		<1.9	U	
VMP-2	5 ft	11/2/2009	VMP-1-38.5	<6.1	U		<6.1	U		<6.3	U		<5.5	U		<5.5	U		2400			<4.9	U		<4.9	U	
		11/2/2009	VMP-2-5	<0.79	U		<0.79	U		<0.82	U		<0.72	U		<0.72	U		270			<0.63	U		<0.63	U	
	8.5 ft	8/31/2010	VMP - 2 - 5 - 083110	<2.4	U		<2.4	U		<2.5	U		<2.2	U		<2.2	U		1300			<1.9	U		<1.9	U	
		11/3/2009	VMP-2-8.5	<0.28	U		<0.28	U		<0.29	U		<0.25	U		<0.25	U		74			<0.22	U		<0.22	U	
		11/3/2009	VMP-2-8.5-D	<0.29	U		<0.29	U		<0.3	U		<0.26	U		<0.26	U		82			<0.23	U		<0.23	U	
	8/31/2010	VMP - 2 - 8.5 - 083110	<2.5	U		<2.5	U		<2.6	U		<2.3	U		<2.3	U		2000			<2	U		<2	U		
22 ft	11/3/2009	VMP-2-22	<1.5	U		<1.5	U		<1.6	U		<1.4	U		<1.4	U		600			<1.2	U		<1.2	U		
	8/31/2010	VMP - 2 - 22 - 083110	<3.8	U		<3.8	U		<4	U		<3.5	U		<3.5	U		2300			<3.1	U		<3.1	U		
42 ft	11/3/2009	VMP-2-42	<30	U		<30	U		<31	U		<27	U		<27	U		1700			160			58			
VMP-3	5 ft	11/3/2009	VMP-3-5	<0.029	U		<0.029	U		<0.03	U		<0.026	U		<0.026	U		6.4			0.1			0.045		
		9/9/2010	VMP-3-5-090910	<7.2	U		<7.2	U		<7.5	U		<6.5	U		<6.5	U		1200			<5.8	U		<5.8	U	
	10 ft	6/21/2010	VMP-3-10	<8.3	U		<8.3	U		<8.5	U		4.3	J		1.4	J		3500			2.9	J		<6.6	U	
		9/10/2010	VMP 3-22-091010	<23	U		<23	U		<24	U		<21	U		<21	U		3000			<18	U		<18	U	
		9/20/2010	VMP-3-10-092010	<17	U		<17	U		<17	U		<15	U		<15	U		2400			6.6	J		<13	U	
	22 ft	11/4/2009	VMP-3-22	<21	U		<21	U		<22	U		<19	U		<19	U		3800			22			<17	U	
		9/20/2010	VMP-3-22-092010	<22	U		<22	U		<23	U		5.3	J		<20	U		3200			26			11	J	
	31.5 ft	11/4/2009	VMP-3-31.5	<34	U		<34	U		<35	U		<30	U		<30	U		6800			130			<27	U	
		9/9/2010	VMP-3-31.5-090910	<41	U		<41	U		<43	U		38			17	J		8300			87			26	J	
39 ft	11/4/2009	VMP-3-39	<67	U		<67	U		<69	U		<61	U		<61	U		7100			110			<54	U		
VMP-4	5 ft	11/5/2009	VMP-4-5	<0.069	U		<0.069	U		<0.071	U		<0.062	U		<0.062	U		20			<0.055	U		<0.055	U	
		8/25/2010	VMP-4-5-082510	<0.39	U		<0.39	U		<0.4	U		0.054	J		<0.35	U		220			<0.31	U		<0.31	U	
	12 ft	11/5/2009	VMP-4-12	<1.2	U		<1.2	U		<1.2	U		<1	U		<1	U		300			1.5			<0.92	U	
		8/25/2010	VMP-4-12-082510	<6.9	U		<6.9	U		<7.1	U		1.8	J		1.5	J		1400			5.6			<5.5	U	
	23.5 ft	11/5/2009	VMP-4-23.5	<53	U		<53	U		<54	U		78			<48	U		4700			1300			410		
8/31/2010		VMP - 4 - 23.5 - 083110	<7.9	U		<7.9	U		<8.1	U		190		J	66		J	5800		J	1800		J	600		J	
39 ft	11/5/2009	VMP-4-39	<41	U		<41	U		<42	U		83			<37	U		4500			1100			320			
VMP-5	5 ft	11/5/2009	VMP-5-5	<1.2	U		<1.2	U		<1.2	U		<1.1	U		<1.1	U		370			<0.97	U		<0.97	U	
		9/9/2010	VMP-5-5-090910	<14	U		<14	U		<15	U		13			6.9	J		1600			9	J		6.4	J	
	12.5 ft	11/6/2009	VMP-5-12.5	<1.4	U		<1.4	U		<1.4	U		<1.3	U		<1.3	U		960			<1.1	U		<1.1	U	
		11/6/2009	VMP-5-12.5-D	<3.2	U		<3.2	U		<3.2	U		<2.8	U		<2.8	U		1000			<2.5	U		<2.5	U	
		9/9/2010	VMP-5-12.5-090910	<7.2	U		<7.2	U		<7.4	U		6.1	J		3	J		1500			3.2	J		2.2	J	
	31 ft	11/6/2009	VMP-5-31	<13	U		<13	U		<13	U		<12	U		<12	U		4000			<10	U		<10	U	
		9/9/2010	VMP-5-31-090910	<30	U		<30	U		<31	U		<27	U		<27	U		4400			7.7	J		<24	U	
40 ft	11/6/2009	VMP-5-40	<18	U		<18	U		<18	U		<16	U		<16	U		3400			<14	U		<14	U		
VMP-6	5 ft	11/6/2009	VMP-6-5	<2.2	U		<2.2	U		<2.2	U		<1.9	U		<1.9	U		1400		J	3.1		J	<1.7	U	
		9/8/2010	VMP-6-5-090810	<1.2	U		<1.2	U		<1.2	U		0.74	J		0.34	J		340			0.47	J		0.33	J	
	10 ft	11/6/2009	VMP-6-10	<2.3	U		<2.3	U		<2.4	U		<2.1	U		<2.1	U		1800			3.4			<1.9	U	
		9/8/2010	VMP-6-10-090810	<1.3	U		<1.3	U		<1.3	U		0.62	J	J	0.29	J	J	930		J	0.83	J	J	0.32	J	J
	31.5 ft	11/9/2009	VMP-6-31.5	<15	U		<15	U		<16	U		29			<14	U		2500			66			<12	U	
		9/8/2010	VMP-6-31.5-090810	<8.8	U		<8.8	U		<9	U		22			5.3	J		3100			51			<7	U	
39 ft	11/9/2009	VMP-6-39	<17	U		<17	U		<18	U																	

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																														
Location	Depth	Sample Date	Sample ID	Acetone			Benzene			Bromodichloromethane			Bromomethane			1,3-Butadiene			2-Butanone			Carbon disulfide			Carbon tetrachloride			Chlorobenzene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				750,000 mg/m³			300 mg/m³			450,000 mg/m³			5,000 mg/m³						2,700,000 mg/m³			500,000 mg/m³			180 mg/m³			50,600 mg/m³		
VMP-10	5 ft	11/11/2009	VMP-10-5	0.033			0.02			<0.007	U		<0.004	U		<0.002	U		0.0032			<0.003	U		<0.006	U		<0.005	U	
		9/7/2010	VMP-10-5-090710	0.024			0.1			<0.0088	U		0.0024	J		<0.0029	U		0.004			0.01			<0.0083	U		<0.0061	U	
	10 ft	11/11/2009	VMP-10-10	<0.011	U		<0.003	U		<0.007	U		<0.004	U		<0.002	U		<0.003	U		<0.003	U		<0.007	U		<0.005	U	
		9/7/2010	VMP-10-10-090710	0.023			0.075			<0.0088	U		<0.0051	U		<0.0029	U		0.0033	J		0.04			<0.0083	U		<0.0061	U	
	20 ft	11/11/2009	VMP-10-20	0.014			<0.003	U		<0.007	U		<0.004	U		<0.002	U		<0.003	U		<0.003	U		<0.007	U		<0.005	U	
		11/11/2009	VMP-10-20-D	0.026			<0.003	U		<0.008	U		<0.004	U		<0.002	U		0.0058			<0.003	U		<0.007	U		<0.005	U	
		9/7/2010	VMP-10-20-090710	0.036			0.039		J	<0.0092	U		<0.0054	U		<0.003	U		0.0058			0.0021	J		<0.0087	U		<0.0064	U	
30 ft	9/7/2010	VMP-10-20-090710-DUP	0.029			0.019		J	<0.0086	U		<0.005	U		<0.0028	U		0.0046			0.0034	J		<0.0081	U		<0.0059	U		
	11/13/2009	VMP-10-30	<0.012	U		0.19			<0.008	U		<0.004	U		<0.002	U		<0.003	U		<0.003	U		<0.007	U		<0.005	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.085	U		4.9			<0.06	U		<0.035	U		<0.02	U		<0.026	U		<0.028	U		<0.056	U		<0.041	U	
		9/7/2010	VMP-11-5-090710	0.036			0.014			<0.0083	U		<0.0048	U		<0.0027	U		0.0048			0.0021	J		<0.0078	U		<0.0057	U	
	8 ft	11/17/2009	VMP-11-8	0.04			0.46			<0.008	U		<0.004	U		<0.002	U		0.0069			<0.003	U		<0.007	U		<0.005	U	
		9/8/2010	VMP-11-8-090810	0.017			0.024			<0.0086	U		<0.005	U		<0.0028	U		0.0023	J		<0.0049		U	<0.0081	U		<0.0059	U	
	29 ft	11/18/2009	VMP-11-29	<81	U		8600			<57	U		<33	U		<19	U		<25	U		<26	U		<53	U		<39	U	
		9/8/2010	VMP-11-29-090810	<0.31	U		120			<0.22	U		<0.12	U		<0.071	U		<0.095	U		<0.1	U		<0.2	U		<0.15	U	
38 ft	11/18/2009	VMP-11-38	<230	U		31000			<160	U		<96	U		<54	U		<73	U		<77	U		<160	U		<110	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<30	U		7500			<21	U		<12	U		<7	U		<9.3	U		<9.8	U		<20	U		<14	U	
		9/3/2010	VMP-12-5-090310	<13	U		230			<9	U		<5.2	U		<3	U		<4	U		<4.2	U		<8.5	U		<6.2	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<52	U		8400			<37	U		<21	U		<12	U		<16	U		<17	U		<35	U		<25	U	
		9/3/2010	VMP-12-11.5-090310	<16	U		4100			<12	U		<6.7	U		<3.8	U		<5.1	U		<5.4	U		<11	U		<7.9	U	
	25 ft	11/13/2009	VMP-12-25	<110	U		18000			<76	U		<44	U		<25	U		<33	U		<35	U		<71	U		<52	U	
		9/3/2010	VMP-12-25-090310	<21	U		14000			<15	U		<8.5	U		<4.9	U		<6.5	U		<6.8	U		<14	U		<10	U	
39 ft	11/13/2009	VMP-12-39	<110	U		26000			<79	U		<46	U		<26	U		<35	U		<37	U		<74	U		<54	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<23	U		5900			<16	U		<9.4	U		<5.4	U		<7.1	U		<7.5	U		<15	U		<11	U	
		9/13/2010	VMP 13-5-091310	0.032	J		9			<0.059	U		<0.034	U		<0.019	U		0.0055	J		0.018	J		<0.055	U		<0.04	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<2.8	U		500			<2	U		<1.2	U		<0.66	U		<0.88	U		<0.93	U		<1.9	U		<1.4	U	
		11/17/2009	VMP-13-10.5-D	<2.9	U		570			<2.1	U		<1.2	U		<0.68	U		<0.91	U		<0.96	U		<1.9	U		<1.4	U	
		9/13/2010	VMP 13-10.5-091310	0.017	J		3.3			<0.022	U		<0.013	U		<0.0072	U		<0.0096	U		0.0056	J		<0.02	U		<0.015	U	
		9/13/2010	VMP 13-10.5-091310-Dup	0.07			3.4			<0.021	U		<0.012	U		<0.007	U		0.0036	J		0.02			<0.02	U		<0.015	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<140	U		24000			<100	U		<59	U		<34	U		<45	U		<47	U		<96	U		<70	U	
9/13/2010		VMP 13-21.5-091310	<23	U		5800			<16	U		<9.4	U		<5.4	U		<7.1	U		<7.5	U		<15	U		<11	U		
29.5 ft	11/17/2009	VMP-13-29.5	<280	U		90000			<200	U		<120	U		<66	U		<88	U		<93	U		<190	U		<140	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.024	U		0.021			<0.017	U		<0.01	U		<0.005	U		<0.007	U		<0.008	U		<0.016	U		<0.012	U	
		9/10/2010	VMP 14-5-091010	<0.59	U		0.71			<0.42	U		<0.24	U		<0.14	U		<0.18	U		<0.19	U		<0.39	U		<0.28	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<2.9	U		550			<2.1	U		<1.2	U		<0.68	U		<0.91	U		<0.96	U		<1.9	U		<1.4	U	
		9/10/2010	VMP 14-11.5-091010	<9.1	U		52			<6.4	U		<3.7	U		<2.1	U		<2.8	U		<3	U		<6	U		<4.4	U	
	20 ft	11/16/2009	VMP-14-20	<110	U		26000			<80	U		<46	U		<26	U		<35	U		<37	U		<75	U		<55	U	
		9/10/2010	VMP 14-20-091010	<140	U		37000			<97	U		<56	U		<32	U		<43	U		<45	U		<92	U		<67	U	
29 ft	9/10/2010	VMP 14-20-091010-Dup	<140	U		35000			<100	U		<59	U		<33	U		<44	U		<47	U		<95	U		<70	U		
	11/16/2009	VMP-14-29	<440	U		79000			<310	U		<180	U		<100	U														

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																														
Location	Depth	Sample Date	Sample ID	Chloroform			Chloromethane			alpha-Chlorotoluene			Cyclohexane			1,2-Dibromoethane			1,2-Dichlorobenzene			1,3-Dichlorobenzene			1,4-Dichlorobenzene			1,1-Dichloroethane		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				87 mg/m³									12 mg/m³			11,000 mg/m³						270 mg/m³			500,000 mg/m³					
VMP-10	5 ft	11/11/2009	VMP-10-5	<0.005	U		<0.009	U		<0.005	U		<0.003	U		<0.008	U		<0.006	U		<0.006	U		<0.006	U		<0.004	U	
		9/7/2010	VMP-10-5-090710	<0.0064	U		<0.011	U		<0.0068	U		0.0092	U		<0.01	U		<0.0079	U		<0.0079	U		<0.0079	U		<0.0053	U	
	10 ft	11/11/2009	VMP-10-10	<0.005	U		<0.009	U		<0.005	U		<0.003	U		<0.008	U		<0.006	U		<0.006	U		<0.006	U		<0.004	U	
		9/7/2010	VMP-10-10-090710	<0.0064	U		<0.011	U		<0.0068	U		0.0052			<0.01	U		<0.0079	U		<0.0079	U		<0.0079	U		<0.0053	U	
	20 ft	11/11/2009	VMP-10-20	<0.005	U		<0.009	U		<0.005	U		<0.003	U		<0.008	U		<0.006	U		<0.006	U		<0.006	U		<0.004	U	
		11/11/2009	VMP-10-20-D	<0.006	U		<0.01	U		<0.006	U		<0.004	U		<0.009	U		<0.007	U		<0.007	U		<0.007	U		<0.005	U	
		9/7/2010	VMP-10-20-090710	<0.0067	U		<0.011	U		<0.0071	U		0.0035	J		<0.011	U		<0.0083	U		<0.0083	U		<0.0083	U		<0.0056	U	
30 ft	9/7/2010	VMP-10-20-090710-DUP	<0.0063	U		<0.011	U		<0.0067	U		0.002	J		<0.0099	U		<0.0078	U		<0.0078	U		<0.0078	U		<0.0052	U		
	11/13/2009	VMP-10-30	0.016			<0.01	U		<0.006	U		<0.004	U		<0.009	U		<0.007	U		<0.007	U		<0.007	U		<0.005	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.044	U		<0.074	U		<0.046	U		<0.031	U		<0.069	U		<0.054	U		<0.054	U		<0.054	U		<0.036	U	
		9/7/2010	VMP-11-5-090710	0.0019	J		<0.01	U		<0.0064	U		0.0012	J		<0.0095	U		<0.0074	U		<0.0074	U		<0.0074	U		<0.005	U	
	8 ft	11/17/2009	VMP-11-8	<0.006	U		<0.01	U		<0.006	U		<0.004	U		<0.009	U		<0.007	U		<0.007	U		<0.007	U		<0.005	U	
		9/8/2010	VMP-11-8-090810	0.0014	J		<0.011	U		<0.0067	U		0.00085	J		<0.0099	U		<0.0078	U		<0.0078	U		<0.0078	U		<0.0052	U	
	29 ft	11/18/2009	VMP-11-29	<42	U		<70	U		<44	U		<29	U		<65	U		<51	U		<51	U		<51	U		<34	U	
		9/8/2010	VMP-11-29-090810	<0.16	U		<0.27	U		<0.17	U		0.068	J		<0.25	U		<0.19	U		<0.19	U		<0.19	U		<0.13	U	
38 ft	11/18/2009	VMP-11-38	<120	U		<200	U		<130	U		<85	U		<190	U		<150	U		<150	U		<150	U		<100	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<15	U		<26	U		<16	U		570			<24	U		<19	U		<19	U		<19	U		<13	U	
		9/3/2010	VMP-12-5-090310	<6.6	U		<11	U		<7	U		410			<10	U		<8.1	U		<8.1	U		<8.1	U		<5.4	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<27	U		<45	U		<28	U		560			<42	U		<33	U		<33	U		<33	U		<22	U	
		9/3/2010	VMP-12-11.5-090310	<8.4	U		<14	U		<8.9	U		580			<13	U		<10	U		<10	U		<10	U		<7	U	
	25 ft	11/13/2009	VMP-12-25	<55	U		<93	U		<58	U		680			<87	U		<68	U		<68	U		<68	U		<46	U	
		9/3/2010	VMP-12-25-090310	<11	U		<18	U		<11	U		650			<17	U		<13	U		<13	U		<13	U		<8.9	U	
39 ft	11/13/2009	VMP-12-39	<58	U		<98	U		<61	U		710			<91	U		<71	U		<71	U		<71	U		<48	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<12	U		<20	U		<12	U		<8.3	U		<18	U		<14	U		<14	U		<14	U		<9.8	U	
		9/13/2010	VMP 13-5-091310	<0.043	U		<0.073	U		<0.046	U		0.014	J		<0.068	U		<0.053	U		<0.053	U		<0.053	U		<0.036	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<1.4	U		<2.4	U		<1.5	U		<1	U		<2.3	U		<1.8	U		<1.8	U		<1.8	U		<1.2	U	
		11/17/2009	VMP-13-10.5-D	<1.5	U		<2.6	U		<1.6	U		<1.1	U		<2.4	U		<1.8	U		<1.8	U		<1.8	U		<1.2	U	
		9/13/2010	VMP 13-10.5-091310	<0.016	U		<0.027	U		<0.017	U		0.014			<0.025	U		<0.02	U		<0.02	U		<0.02	U		<0.013	U	
		9/13/2010	VMP 13-10.5-091310-Dup	<0.016	U		<0.026	U		<0.016	U		0.015			<0.024	U		<0.019	U		<0.019	U		<0.019	U		<0.013	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<74	U		<120	U		<79	U		<52	U		<120	U		<91	U		<91	U		<91	U		<62	U	
9/13/2010		VMP 13-21.5-091310	<12	U		<20	U		<12	U		2.5	J		<18	U		<14	U		<14	U		<14	U		<9.8	U		
29.5 ft	11/17/2009	VMP-13-29.5	<140	U		<240	U		<150	U		<100	U		<230	U		<180	U		<180	U		<180	U		<120	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.012	U		<0.021	U		<0.013	U		<0.008	U		<0.02	U		<0.016	U		<0.016	U		<0.016	U		<0.01	U	
		9/10/2010	VMP 14-5-091010	<0.3	U		<0.51	U		<0.32	U		0.85			<0.48	U		<0.37	U		<0.37	U		<0.37	U		<0.25	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<1.5	U		<2.5	U		<1.6	U		180			<2.4	U		<1.8	U		<1.8	U		<1.8	U		<1.2	U	
		9/10/2010	VMP 14-11.5-091010	<4.7	U		<7.9	U		<4.9	U		140			<7.3	U		<5.7	U		<5.7	U		<5.7	U		<3.9	U	
	20 ft	11/16/2009	VMP-14-20	<58	U		<98	U		<62	U		160			<91	U		<72	U		<72	U		<72	U		<48	U	
		9/10/2010	VMP 14-20-091010	<71	U		<120	U		<75	U		250			<110	U		<87	U		<87	U		<87	U		<59	U	
	29 ft	9/10/2010	VMP 14-20-091010-Dup	<74	U		<120	U		<78	U		240			<120	U		<91	U		<91	U		<91	U		<6		

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																											
Location	Depth	Sample Date	Sample ID	cis-1,2-Dichloroethene			Dichlorodifluoromethane			1,2-Dichloroethane			1,2-Dichloropropane			1,4-Dioxane			Ethanol			Ethylbenzene			4-Ethyltoluene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				1,100,000 mg/m³						77 mg/m³			53 mg/m³			110 mg/m³						59,000 mg/m³					
VMP-10	5 ft	11/11/2009	VMP-10-5	<0.004	U		<0.005	U		<0.004	U		<0.005	U		<0.016	U		0.18		J	<0.004	U		<0.005	U	
		9/7/2010	VMP-10-5-090710	<0.0052	U		0.0024	J		<0.0053	U		<0.0061	U		<0.019	U		0.015			0.009			0.0072	U	
	10 ft	11/11/2009	VMP-10-10	<0.004	U		<0.005	U		<0.004	U		<0.005	U		<0.016	U		0.046		J	<0.005	U		<0.005	U	
		9/7/2010	VMP-10-10-090710	<0.0052	U		0.0025	J		<0.0053	U		<0.0061	U		0.0077	J		0.0079	J		<0.0057	U		<0.0065	U	
	20 ft	11/11/2009	VMP-10-20	<0.004	U		<0.005	U		<0.004	U		<0.005	U		<0.016	U		0.036		J	<0.004	U		<0.005	U	
		11/11/2009	VMP-10-20-D	<0.004	U		<0.006	U		<0.005	U		<0.005	U		<0.018	U		0.22		J	<0.005	U		<0.006	U	
		9/7/2010	VMP-10-20-090710	<0.0055	U		0.0027	J		<0.0056	U		<0.0064	U		<0.02	U		0.012		J	0.002	J		<0.0068	U	
30 ft	9/7/2010	VMP-10-20-090710-DUP	<0.0051	U		0.0033	J		<0.0052	U		<0.006	U		<0.018	U		0.048		J	0.0017	J		<0.0063	U		
	11/13/2009	VMP-10-30	<0.004	U		<0.006	U		<0.005	U		<0.005	U		<0.018	U		<0.009	U		<0.005	U		<0.006	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.035	U		<0.044	U		<0.036	U		<0.041	U		<0.13	U		<0.067	U		<0.039	U		<0.044	U	
		9/7/2010	VMP-11-5-090710	<0.0049	U		0.0025	J		<0.005	U		<0.0057	U		<0.018	U		0.0099			0.0019	J		<0.0061	U	
	8 ft	11/17/2009	VMP-11-8	<0.004	U		<0.006	U		<0.005	U		<0.005	U		<0.018	U		0.14		J	<0.005	U		<0.006	U	
		9/8/2010	VMP-11-8-090810	<0.0051	U		0.0038	J		<0.0052	U		<0.006	U		<0.018	U		0.013			<0.0056	U		<0.0063	U	
	29 ft	11/18/2009	VMP-11-29	<34	U		<42	U		<34	U		<39	U		<120	U		<64	U		<37	U		<42	U	
		9/8/2010	VMP-11-29-090810	<0.13	U		<0.16	U		<0.13	U		<0.15	U		<0.46	U		<0.24	U		0.033	J		0.26		
38 ft	11/18/2009	VMP-11-38	<98	U		<120	U		<100	U		<110	U		<360	U		<180	U		<110	U		<120	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<12	U		<16	U		<13	U		<15	U		<46	U		<24	U		<14	U		<16	U	
		9/3/2010	VMP-12-5-090310	<5.3	U		<6.6	U		<5.4	U		<6.2	U		<19	U		<10	U		<5.8	U		<6.6	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<22	U		<27	U		<22	U		<25	U		<79	U		<41	U		<24	U		<27	U	
		9/3/2010	VMP-12-11.5-090310	<6.8	U		<8.5	U		<7	U		<8	U		<25	U		<13	U		5.4	J		<8.5	U	
	25 ft	11/13/2009	VMP-12-25	<45	U		<56	U		<46	U		<52	U		<160	U		<85	U		<49	U		<56	U	
		9/3/2010	VMP-12-25-090310	<8.7	U		<11	U		<8.9	U		<10	U		<32	U		<16	U		14			<11	U	
39 ft	11/13/2009	VMP-12-39	<47	U		<59	U		<48	U		<55	U		<170	U		<89	U		71			<58	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<9.6	U		<12	U		<9.8	U		<11	U		<35	U		<18	U		<10	U		<12	U	
		9/13/2010	VMP 13-5-091310	<0.035	U		<0.044	U		<0.036	U		<0.041	U		<0.13	U		0.24			<0.038	U		<0.043	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<1.2	U		<1.5	U		<1.2	U		<1.4	U		<4.3	U		<2.2	U		<1.3	U		<1.5	U	
		11/17/2009	VMP-13-10.5-D	<1.2	U		<1.5	U		<1.2	U		<1.4	U		<4.4	U		<2.3	U		<1.3	U		<1.5	U	
		9/13/2010	VMP 13-10.5-091310	<0.013	U		0.0032	J		<0.013	U		<0.015	U		<0.047	U		<0.024	U		<0.014	U		<0.016	U	
		9/13/2010	VMP 13-10.5-091310-Dup	<0.012	U		0.0034	J		<0.013	U		<0.015	U		0.041	J		0.014	J		<0.014	U		<0.016	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<60	U		<75	U		<62	U		<70	U		<220	U		<110	U		<66	U		<75	U	
9/13/2010		VMP 13-21.5-091310	<9.6	U		<12	U		<9.8	U		<11	U		<35	U		<18	U		<10	U		<12	U		
29.5 ft	11/17/2009	VMP-13-29.5	<120	U		<150	U		<120	U		<140	U		<430	U		<220	U		<130	U		<150	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.01	U		<0.013	U		<0.01	U		<0.012	U		<0.037	U		<0.019	U		<0.011	U		<0.013	U	
		9/10/2010	VMP 14-5-091010	<0.24	U		<0.31	U		<0.25	U		<0.29	U		<0.89	U		<0.47	U		<0.27	U		<0.3	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<1.2	U		<1.5	U		<1.2	U		<1.4	U		<4.4	U		<2.3	U		<1.3	U		<1.5	U	
		9/10/2010	VMP 14-11.5-091010	<3.8	U		<4.7	U		<3.9	U		<4.4	U		<14	U		<7.2	U		<4.1	U		<4.7	U	
	20 ft	11/16/2009	VMP-14-20	<47	U		<59	U		<48	U		<55	U		<170	U		<90	U		<52	U		<58	U	
		9/10/2010	VMP 14-20-091010	<58	U		<72	U		<59	U		<67	U		<210	U		<110	U		<63	U		<72	U	
		9/10/2010	VMP 14-20-091010-Dup	<60	U		<75	U		<61	U		<70	U		<220	U		<110	U		<66	U		<74	U	
29 ft	11/16/2009	VMP-14-29	<180	U		<230	U		<190	U		<220	U		<670	U		<350	U		<200	U		<230	U		
VMP-15	5 ft	11/18/2009	VMP-15-5	<0.005	U		<0.006	U		<0.005	U		<0.005	U		<0.018	U		0.011		J	<0.005	U		<0.006	U	
		11/18/2009	VMP-15-5-D	<0.005	U		<0.006	U		<0.005	U		<0.005	U		<0.018	U		0.018		J	<0.005	U		<0.006	U	
		9/14/2010	VMP 15-5-091410	<0.005	U		0.002	J		<0.0051	U		<0.0058	U		<0.018	U		0.0076	J		<0.0055	U		<0.0062	U	
	21.5 ft	11/18/2009	VMP-15-21.5	<2.2	U		<2.8	U		<2.3	U		<2.6	U		<8.2	U		<4.3	U		<2.5	U		<2.8	U	
		9/14/2010	VMP 15-21.5-091410	<0.54	U		<0.68	U		<0.55	U		<0.63	U		<2	U		<1	U		<0.59	U		<0.67	U	
	25.5 ft	11																									

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																											
Location	Depth	Sample Date	Sample ID	Freon 113			Heptane			Hexane			2-Hexanone			Isopropylbenzene			4-Methyl-2-pentanone			Methyl tert-Butyl Ether			Methylene chloride		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria													30,000 mg/m³						1,200,000 mg/m³			4,400 mg/m³					
VMP-10	5 ft	11/11/2009	VMP-10-5	<0.008	U		<0.004	U		<0.003	U		<0.018	U		<0.005	U		<0.004	U		<0.004	U		<0.003	U	
		9/7/2010	VMP-10-5-090710	<0.01	U		0.0071			0.015			<0.022	U		0.002	J		0.0016	J		<0.0048	U		<0.0046	U	
	10 ft	11/11/2009	VMP-10-10	<0.008	U		<0.004	U		<0.004	U		<0.019	U		<0.005	U		<0.004	U		<0.004	U		<0.004	U	
		9/7/2010	VMP-10-10-090710	<0.01	U		0.0017	J		0.0016	J		<0.022	U		<0.0065	U		0.0012	J		<0.0048	U		<0.0046	U	
	20 ft	11/11/2009	VMP-10-20	<0.008	U		0.0049			0.0068			<0.018	U		<0.005	U		<0.004	U		<0.004	U		<0.003	U	
		11/11/2009	VMP-10-20-D	<0.009	U		<0.005	U		<0.004	U		<0.02	U		<0.006	U		<0.005	U		<0.004	U		<0.004	U	
		9/7/2010	VMP-10-20-090710	<0.01	U		0.0037	J		0.0061			<0.023	U		<0.0068	U		0.00098	J		<0.005	U		<0.0035	J	U
		9/7/2010	VMP-10-20-090710-DUP	<0.0099	U		0.0025	J		0.0043	J		<0.021	U		<0.0063	U		0.00096	J		<0.0046	U		<0.026		U
30 ft	11/13/2009	VMP-10-30	<0.009	U		<0.005	U		0.0052			<0.02	U		<0.006	U		<0.005	U		<0.004	U		<0.004	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.068	U		<0.037	U		<0.032	U		<0.15	U		<0.044	U		<0.037	U		<0.032	U		<0.031	U	
		9/7/2010	VMP-11-5-090710	<0.0095	U		0.001	J		<0.0044	U		<0.02	U		<0.0061	U		0.00085	J		<0.0044	U		<0.0043	U	
	8 ft	11/17/2009	VMP-11-8	<0.009	U		<0.005	U		<0.004	U		<0.02	U		<0.006	U		<0.005	U		<0.004	U		<0.004	U	
		9/8/2010	VMP-11-8-090810	<0.0099	U		0.0016	J		0.0034	J		<0.021	U		<0.0063	U		<0.0053	U		<0.0046	U		0.047		
	29 ft	11/18/2009	VMP-11-29	<65	U		<35	U		<30	U		<140	U		<42	U		<35	U		<31	U		<30	U	
		9/8/2010	VMP-11-29-090810	<0.25	U		<0.13	U		0.1	J		<0.53	U		<0.16	U		<0.13	U		0.053	J		<0.11	U	
38 ft	11/18/2009	VMP-11-38	<190	U		<100	U		<87	U		<400	U		<120	U		<100	U		<89	U		<86	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<24	U		17			200			<52	U		<16	U		<13	U		<11	U		<11	U	
		9/3/2010	VMP-12-5-090310	<10	U		<5.5	U		11			<22	U		2.9	J		<5.5	U		<4.8	U		<4.7	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<42	U		<22	U		230			<90	U		<27	U		<22	U		<20	U		<19	U	
		9/3/2010	VMP-12-11.5-090310	<13	U		4.5	J		41			<28	U		9.1			<7.1	U		<6.2	U		<6	U	
	25 ft	11/13/2009	VMP-12-25	<87	U		220			1200			<180	U		<56	U		<46	U		<41	U		<39	U	
		9/3/2010	VMP-12-25-090310	<17	U		100			860			<36	U		20			<9	U		<7.9	U		<7.6	U	
39 ft	11/13/2009	VMP-12-39	<91	U		370			1400			<190	U		<58	U		<48	U		<43	U		<41	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<18	U		<9.9	U		<8.5	U		<40	U		<12	U		<9.9	U		<8.7	U		<8.4	U	
		9/13/2010	VMP 13-5-091310	<0.067	U		0.0094	J		0.015	J		<0.14	U		<0.043	U		<0.036	U		<0.032	U		<0.03	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<2.3	U		<1.2	U		<1	U		<4.9	U		<1.5	U		<1.2	U		<1.1	U		<1	U	
		11/17/2009	VMP-13-10.5-D	<2.4	U		<1.3	U		<1.1	U		<5.1	U		<1.5	U		<1.3	U		<1.1	U		<1.1	U	
		9/13/2010	VMP 13-10.5-091310	<0.025	U		0.0052	J		0.028		J	<0.053	U		<0.016	U		<0.013	U		<0.012	U		<0.011	U	
		9/13/2010	VMP 13-10.5-091310-Dup	<0.024	U		0.0072	J		0.043		J	<0.052	U		<0.016	U		<0.013	U		<0.011	U		<0.011	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<120	U		<62	U		<54	U		<250	U		<75	U		<62	U		<55	U		<53	U	
		9/13/2010	VMP 13-21.5-091310	<18	U		<9.9	U		2.1	J		<40	U		<12	U		<9.9	U		<8.7	U		9.2		
29.5 ft	11/17/2009	VMP-13-29.5	<230	U		<120	U		<100	U		<490	U		<150	U		<120	U		<110	U		<100	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.02	U		<0.01	U		0.015			<0.042	U		<0.013	U		<0.01	U		<0.009	U		<0.009	U	
		9/10/2010	VMP 14-5-091010	<0.48	U		<0.25	U		0.55			<1	U		<0.3	U		<0.25	U		<0.22	U		<0.22	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<2.4	U		43			380			<5	U		<1.5	U		<1.2	U		<1.1	U		<1.1	U	
		9/10/2010	VMP 14-11.5-091010	<7.3	U		<3.9	U		4.6			<16	U		0.97	J		<3.9	U		<3.4	U		<3.3	U	
	20 ft	11/16/2009	VMP-14-20	<91	U		67			350			<190	U		<58	U		<49	U		<43	U		<41	U	
		9/10/2010	VMP 14-20-091010	<110	U		100			700			<240	U		6.4	J		<60	U		<52	U		18	J	
29 ft	9/10/2010	VMP 14-20-091010-Dup	<120	U		98			750			<250	U		<74	U		<62	U		<54	U		<52	U		
11/16/2009	VMP-14-29	<360	U		220			900			<760	U		<230	U		<190	U		<170	U		<160	U			
VMP-15	5 ft	11/18/2009	VMP-15-5	<0.009	U		<0.005	U		<0.004	U		<0.021	U		<0.006	U		<0.005	U		<0.004	U		<0.004	U	
		11/18/2009	VMP-15-5-D	<0.009	U		<0.005	U		<0.004	U		<0.021	U		<0.006	U		<0.005	U		<0.004	U		<0.004	U	
		9/14/2010	VMP 15-5-091410	<0.0096	U		0.0059			0.022			<0.021	U		<0.0062	U		<0.0052	U		<0.0045	U		0.001	J	
	21.5 ft	11/18/2009	VMP-15-21.5	<4.4	U		30			96			<9.3	U		<2.8	U		<2.3	U		<2	U		<2	U	
		9/14/2010	VMP 15-21.5-091410	<1	U		<0.56	U		<0.48	U		<2.2	U		<0.67	U		<0.56	U		<0.49	U		<0.48	U	
	25.5 ft	11/18/2009	VMP-15-25.5	<4.6	U		22			86			<9.7	U		<2.9	U		<2.4	U							

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																											
Location	Depth	Sample Date	Sample ID	2-Propanol			n-Propylbenzene			Styrene			Tetrachloroethene			Tetrahydrofuran			Toluene			1,2,4-Trichlorobenzene			Trichloroethene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria										34,000 mg/m³			490 mg/m³						140,000 mg/m³			4,300 mg/m³			1,300 mg/m³		
VMP-10	5 ft	11/11/2009	VMP-10-5	0.87			<0.005	U		<0.004	U		<0.007	U		<0.003	U		0.0046			<0.033	U		<0.005	U	
		9/7/2010	VMP-10-5-090710	0.02			0.0035	J		0.0029	J		0.0017	J		<0.0039	U		0.014			<0.039	U		<0.0071	U	
	10 ft	11/11/2009	VMP-10-10	<0.011	U		<0.005	U		<0.004	U		<0.007	U		<0.003	U		<0.004	U		<0.034	U		<0.006	U	
		9/7/2010	VMP-10-10-090710	0.01	J		<0.0065	U		<0.0056	U		0.0024	J		<0.0039	U		0.0014	J		<0.039	U		<0.0071	U	
	20 ft	11/11/2009	VMP-10-20	<0.011	U		<0.005	U		<0.004	U		<0.007	U		<0.003	U		0.0052			<0.033	U		<0.006	U	
		11/11/2009	VMP-10-20-D	<0.012	U		<0.006	U		<0.005	U		<0.008	U		<0.003	U		0.0058			<0.037	U		<0.006	U	
		9/7/2010	VMP-10-20-090710	0.023			<0.0068	U		<0.0059	U		<0.0094	U		0.0036	J		0.005	J		<0.041	U		<0.0074	U	
		9/7/2010	VMP-10-20-090710-DUP	0.033			<0.0063	U		<0.0055	U		0.0007	J		0.0042			0.0098			<0.038	U		<0.0069	U	
30 ft	11/13/2009	VMP-10-30	<0.012	U		<0.006	U		<0.005	U		<0.008	U		<0.003	U		<0.004	U		<0.037	U		<0.006	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.088	U		<0.044	U		<0.038	U		<0.061	U		<0.026	U		<0.034	U		<0.26	U		<0.048	U	
		9/7/2010	VMP-11-5-090710	<0.013		U	0.00087	J		<0.0053	U		<0.0084	U		<0.0036	U		0.003	J		<0.037	U		<0.0066	U	
	8 ft	11/17/2009	VMP-11-8	0.032			<0.006	U		<0.005	U		<0.008	U		<0.003	U		<0.004	U		<0.037	U		<0.006	U	
		9/8/2010	VMP-11-8-090810	<0.0073	J	U	<0.0063	U		<0.0055	U		<0.0088	U		<0.0038	U		0.0025	J		<0.038	U		<0.0069	U	
	29 ft	11/18/2009	VMP-11-29	<84	U		<42	U		<36	U		<58	U		<25	U		<32	U		<250	U		<46	U	
		9/8/2010	VMP-11-29-090810	<0.32	U		0.059	J		<0.14	U		<0.22	U		<0.095	U		<0.12	U		<0.96	U		<0.17	U	
38 ft	11/18/2009	VMP-11-38	<240	U		<120	U		<100	U		<170	U		<73	U		<93	U		<730	U		<130	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<31	U		<16	U		<13	U		<21	U		<9.3	U		<12	U		<94	U	UJ	<17	U	
		9/3/2010	VMP-12-5-090310	3.6	J		3	J		<5.7	U		<9.1	U		<4	U		1	J		<40	U		<7.2	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<54	U		<27	U		<23	U		<37	U		<16	U		<21	U		<160	U	UJ	<30	U	
		9/3/2010	VMP-12-11.5-090310	2.4	J		11			<7.3	U		<12	U		<5.1	U		1.1	J		<51	U		<9.3	U	
	25 ft	11/13/2009	VMP-12-25	<110	U		<56	U		<48	U		<77	U		<33	U		<42	U		<340	UJ	UJ	<61	U	
		9/3/2010	VMP-12-25-090310	<22	U		26			<9.4	U		<15	U		<6.5	U		2.9	J		<65	U		<12	U	
39 ft	11/13/2009	VMP-12-39	<120	U		<58	U		<50	U		<80	U		<35	U		<45	U		<350	UJ	UJ	<64	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<24	U		<12	U		<10	U		<16	U		<7.1	U		<9.1	U		<72	UJ	UJ	<13	U	
		9/13/2010	VMP 13-5-091310	<0.086	U		<0.043	U		<0.037	U		<0.06	U		<0.026	U		0.025	J		<0.26	U		<0.047	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<2.9	U		<1.5	U		<1.3	U		<2	U		<0.88	U		<1.1	U		<8.8	UJ	UJ	<1.6	U	
		11/17/2009	VMP-13-10.5-D	<3	U		<1.5	U		<1.3	U		<2.1	U		<0.91	U		<1.2	U		<9.2	U	UJ	<1.7	U	
		9/13/2010	VMP 13-10.5-091310	0.013	J		<0.016	U		<0.014	U		0.0073	J		<0.0096	U		0.0075	J		<0.097	U		<0.018	U	
		9/13/2010	VMP 13-10.5-091310-Dup	0.012	J		<0.016	U		<0.014	U		0.0034	J		<0.0094	U		0.0074	J		<0.094	U		<0.017	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<150	U		<75	U		<65	U		<100	U		<45	U		<57	U		<450	U	UJ	<82	U	
		9/13/2010	VMP 13-21.5-091310	<24	U		<12	U		<10	U		<16	U		<7.1	U		3.7	J		<72	U		<13	U	
29.5 ft	11/17/2009	VMP-13-29.5	<290	U		<150	U		<130	U		<200	U		<88	U		120			<880	U	UJ	<160	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.025	U		<0.013	U		<0.011	U		<0.018	U		<0.007	U		<0.009	U		<0.076	U		<0.014	U	
		9/10/2010	VMP 14-5-091010	<0.61	U		<0.3	U		<0.26	U		<0.42	U		<0.18	U		<0.23	U		<1.8	U		<0.33	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<3	U		<1.5	U		<1.3	U		<2.1	U		<0.91	U		<1.2	U		<9.1	UJ	UJ	<1.6	U	
		9/10/2010	VMP 14-11.5-091010	<9.4	U		<4.7	U		<4.1	U		<6.5	U		<2.8	U		<3.6	U		<28	U		<5.1	U	
	20 ft	11/16/2009	VMP-14-20	<120	U		<58	U		<51	U		<81	U		<35	U		<45	U		<350	UJ	UJ	<64	U	
		9/10/2010	VMP 14-20-091010	<140	U		<72	U		<62	U		<99	U		<43	U		<55	U		<430	U		<78	U	
		9/10/2010	VMP 14-20-091010-Dup	<150	U		<74	U		<64	U		<100	U		<44	U		<57	U		<450	U		<81	U	
29 ft	11/16/2009	VMP-14-29	<460	U		<230	U		<200	U		<320	U		<140	U		<180	U		<1400	UJ	UJ	<250	U		
VMP-15	5 ft	11/18/2009	VMP-15-5	<0.012	U		<0.006	U		<0.005	U		<0.008	U		<0.003	U		<0.004	U		<0.038	U		<0.006	U	
		11/18/2009	VMP-15-5-D	<0.012	U		<0.006	U		<0.005	U		<0.008	U		<0.003	U		<0.004	U		<0.038	U		<0.006	U	
		9/14/2010	VMP 15-5-091410	0.018			<0.0062	U		<0.0054	U		0.0016	J		<0.0037	U		0.0018	J		<0.037	U		<0.0068	U	
	21.5 ft	11/18/2009	VMP-15-21.5	<5.6	U		<2.8	U		<2.4	U		<3.9	U		<1.7	U		<2.1	U		<17	U		<3.1	U	
		9/14/2010	VMP 15-21.5-091410	<1.3	U		<0.67	U		<0.58	U		<0.93	U		<0.4	U		<0.52	U		<4.1	U		<0.74	U	

TABLE 3 SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS PUBLIC WORKS YARD AND WRR - VOCS																											
Location	Depth	Sample Date	Sample ID	1,1,1-Trichloroethane			1,1,2-Trichloroethane			Trichlorofluoromethane			1,2,4-Trimethylbenzene			1,3,5-Trimethylbenzene			2,2,4-Trimethylpentane			m,p-Xylene			o-Xylene		
				Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier	Result (mg/m³)	Lab Qualifier	URS Qualifier
Screening Criteria				870,000 mg/m³			170,000 mg/m³			595,000 mg/m³												52,000 mg/m³			52,000 mg/m³		
VMP-10	5 ft	11/11/2009	VMP-10-5	<0.006	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U		<0.004	U		<0.004	U	
		9/7/2010	VMP-10-5-090710	<0.0072	U		<0.0072	U		0.001	J		0.007			0.0023	J		0.093			0.014			0.0065		
	10 ft	11/11/2009	VMP-10-10	<0.006	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U		<0.005	U		<0.005	U	
		9/7/2010	VMP-10-10-090710	<0.0072	U		<0.0072	U		0.00097	J		<0.0065	U		<0.0065	U		0.048			0.0011	J		<0.0057	U	
	20 ft	11/11/2009	VMP-10-20	<0.006	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U		<0.004	U		<0.004	U	
		11/11/2009	VMP-10-20-D	<0.006	U		<0.006	U		<0.006	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U	
		9/7/2010	VMP-10-20-090710	<0.0075	U		<0.0075	U		0.0013	J		0.0016	J		<0.0068	U		0.027		J	0.0043	J		0.0015	J	
30 ft	9/7/2010	VMP-10-20-090710-DUP	<0.007	U		<0.007	U		0.0018	J		0.0013	J		<0.0063	U		0.011		J	0.0037	J		0.0013	J		
	11/13/2009	VMP-10-30	<0.006	U		<0.006	U		<0.007	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U		
VMP-11	5 ft	11/17/2009	VMP-11-5	<0.049	U		<0.049	U		<0.05	U		<0.044	U		<0.044	U		<0.042	U		<0.039	U		<0.039	U	
		9/7/2010	VMP-11-5-090710	<0.0067	U		<0.0067	U		0.0012	J		<0.0061	U		<0.0061	U		0.041			0.0015	J		<0.0054	U	
	8 ft	11/17/2009	VMP-11-8	<0.006	U		<0.006	U		<0.006	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U	
		9/8/2010	VMP-11-8-090810	<0.007	U		<0.007	U		0.002	J		<0.0063	U		<0.0063	U		0.01			<0.0013	J	U	<0.0056	U	
	29 ft	11/18/2009	VMP-11-29	<46	U		<46	U		<48	U		<42	U		<42	U		<40	U		<37	U		<37	U	
		9/8/2010	VMP-11-29-090810	<0.18	U		<0.18	U		<0.18	U		0.17			0.088	J		1.1		J	0.1	J		0.072	J	
38 ft	11/18/2009	VMP-11-38	<130	U		<130	U		<140	U		<120	U		<120	U		<120	U		<110	U		<110	U		
VMP-12	5 ft	11/13/2009	VMP-12-5	<17	U		<17	U		<18	U		<16	U		<16	U		1500			<14	U		<14	U	
		9/3/2010	VMP-12-5-090310	<7.3	U		<7.3	U		<7.6	U		<6.6	U		<6.6	U		1700			<5.8	U		<5.8	U	
	11.5 ft	11/13/2009	VMP-12-11.5	<30	U		<30	U		<31	U		<27	U		<27	U		1500			<24	U		<24	U	
		9/3/2010	VMP-12-11.5-090310	<9.4	U		<9.4	U		<9.7	U		<8.5	U		<8.5	U		1700			<7.5	U		<7.5	U	
	25 ft	11/13/2009	VMP-12-25	<62	U		<62	U		<63	U		<56	U		<56	U		1600			<49	U		<49	U	
		9/3/2010	VMP-12-25-090310	<12	U		<12	U		<12	U		<11	U		<11	U		1300			<9.6	U		<9.6	U	
39 ft	11/13/2009	VMP-12-39	<65	U		<65	U		<66	U		<58	U		<58	U		1500			<51	U		<51	U		
VMP-13	5 ft	11/16/2009	VMP-13-5	<13	U		<13	U		<14	U		<12	U		<12	U		28			<10	U		<10	U	
		9/13/2010	VMP 13-5-091310	<0.048	U		<0.048	U		<0.049	U		<0.043	U		<0.043	U		0.073			0.0064	J		<0.038	U	
	10.5 ft	11/17/2009	VMP-13-10.5	<1.6	U		<1.6	U		<1.7	U		<1.5	U		<1.5	U		2.6			<1.3	U		<1.3	U	
		11/17/2009	VMP-13-10.5-D	<1.7	U		<1.7	U		<1.7	U		<1.5	U		<1.5	U		2.8			<1.3	U		<1.3	U	
		9/13/2010	VMP 13-10.5-091310	<0.018	U		<0.018	U		<0.018	U		<0.016	U		<0.016	U		0.38			<0.014	U		<0.014	U	
		9/13/2010	VMP 13-10.5-091310-Dup	<0.017	U		<0.017	U		<0.018	U		<0.016	U		<0.016	U		0.4			0.0025	J		<0.014	U	
	21.5 ft	11/17/2009	VMP-13-21.5	<83	U		<83	U		<85	U		<75	U		<75	U		<71	U		<66	U		<66	U	
9/13/2010		VMP 13-21.5-091310	<13	U		<13	U		<14	U		<12	U		<12	U		43			<10	U		<10	U		
29.5 ft	11/17/2009	VMP-13-29.5	<160	U		<160	U		<170	U		<150	U		<150	U		<140	U		<130	U		<130	U		
VMP-14	5 ft	11/20/2009	VMP-14-5	<0.014	U		<0.014	U		<0.014	U		<0.013	U		<0.013	U		0.88			<0.011	U		<0.011	U	
		9/10/2010	VMP 14-5-091010	<0.34	U		<0.34	U		<0.35	U		<0.3	U		<0.3	U		19			<0.27	U		<0.27	U	
	11.5 ft	11/16/2009	VMP-14-11.5	<1.7	U		<1.7	U		<1.7	U		<1.5	U		<1.5	U		200			<1.3	U		<1.3	U	
		9/10/2010	VMP 14-11.5-091010	<5.2	U		<5.2	U		<5.4	U		<4.7	U		<4.7	U		230			<4.1	U		<4.1	U	
	20 ft	11/16/2009	VMP-14-20	<65	U		<65	U		<67	U		<58	U		<58	U		160			<52	U		<52	U	
		9/10/2010	VMP 14-20-091010	<79	U		<79	U		<82	U		<72	U		<72	U		250			<63	U		<63	U	
29 ft	9/10/2010	VMP 14-20-091010-Dup	<82	U		<82	U		<85	U		<74	U		<74	U		240			<66	U		<66	U		
11/16/2009	VMP-14-29	<250	U		<250	U		<260	U		<230	U		<230	U		370			<200	U		<200	U			
VMP-15	5 ft	11/18/2009	VMP-15-5	<0.006	U		<0.006	U		<0.007	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U	
		11/18/2009	VMP-15-5-D	<0.006	U		<0.006	U		<0.007	U		<0.006	U		<0.006	U		<0.005	U		<0.005	U		<0.005	U	
		9/14/2010	VMP 15-5-091410	<0.0069	U		<0.0069	U		<0.0071	U		<0.0062	U		<0.0062	U		0.028			0.0011	J		<0.0055	U	
	21.5 ft	11/18/2009	VMP-15-21.5	<3.1	U		<3.1	U		<3.2	U		<2.8	U		<2.8	U		1000			<2.5	U		<2.5	U	
		9/14/2010	VMP 15-21.5-091410	<0.75	U		<0.75	U		<0.77	U		<0.67	U		<0.67	U		300			<0.59	U		<0.59	U	
	25.5 ft	11/18/2009	VMP-15-25.5																								

TABLE 4
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS - NATURAL GASES

Location	Depth	Sample Date	Sample ID	Carbon Dioxide			Carbon Monoxide			Ethane			Ethene			Helium			Methane			Nitrogen			Oxygen		
				Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier
VMP-1	5 ft	11/2/2009	VMP-1-5	4.5			<0.024	U		<0.0024	U		<0.0024	U		1.6			1.4			81			11		
		8/25/2010	VMP-1-5-082510	3			<0.026	U		<0.0026	U		<0.0026	U		0.95			0.0032			79			17		
	8.5 ft	11/2/2009	VMP-1-8.5	12			<0.023	U		<0.0023	U		<0.0023	U		<0.11	U		1.5			85			1.5		
		8/25/2010	VMP-1-8.5-082510	4.8			<0.026	U		<0.0026	U		<0.0026	U		4.1			0.0032			78			13		
	23.5 ft	11/2/2009	VMP-1-23.5	9.8			<0.024	U		0.0038			<0.0024	U		<0.12	U		7.4			80			1.3		
		8/30/2010	VMP - 1 - 23.5 - 083010	8.1			<0.027	U		0.0052			<0.0027	U		0.032	J		9.7			78			1.6		
38.5 ft	11/2/2009	VMP-1-38.5	5.6			<0.022	U		0.017			<0.0022	U		0.23			33			54			1.4			
VMP-2	5 ft	11/2/2009	VMP-2-5	7.8			<0.023	U		<0.0023	U		<0.0023	U		2.4			0.0078			79			11		
		8/31/2010	VMP - 2 - 5 - 083110	10			<0.027	U		0.00086	J		<0.0027	U		0.039	J		1.6			85			3.2		
	8.5 ft	11/3/2009	VMP-2-8.5	2.5			<0.02	U		<0.002	U		<0.002	U		1.2			<0.0002	U		78			18		
		11/3/2009	VMP-2-8.5-D	2.7			<0.022	U		<0.0022	U		<0.0022	U		1.3			<0.00022	U		78			18		
		8/31/2010	VMP - 2 - 8.5 - 083110	11			<0.028	U		0.0025	J		<0.0028	U		0.025	J		4.5			82			1.4		
	22 ft	11/3/2009	VMP-2-22	10			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		0.54			85			4		
		8/31/2010	VMP - 2 - 22 - 083110	10			<0.028	U		0.004			<0.0028	U		0.041	J		8			79			1.4		
	42 ft	11/3/2009	VMP-2-42	5			<0.022	U		0.02			<0.0022	U		<0.11	U		64			16			0.92		
VMP-3	5 ft	11/3/2009	VMP-3-5	8.5			<0.027	U		<0.0027	U		<0.0027	U		0.18			0.037			86			5		
		9/9/2010	VMP-3-5-090910	12			<0.021	U		0.0018	J		<0.0021	U		0.5			7.5			76			2.7		
	10 ft	6/21/2010	VMP-3-10	7.9			<0.03	U		0.01			<0.003	U		<0.15	U		26			60			1.3		
		9/10/2010	VMP 3-22-091010	9.2			<0.024	U		0.012			<0.0024	U		<0.12	U		28			56			1.1		
		9/20/2010	VMP-3-10-092010	8.3			<0.025	U		0.011			<0.0025	U		<0.0068	J	U	26			58			2.9		
	22 ft	11/4/2009	VMP-3-22	8.7			<0.023	U		0.012			<0.0023	U		<0.12	U		25			58			1.1		
		9/20/2010	VMP-3-22-092010	8			<0.024	U		0.013			<0.0024	U		<0.0069	J	U	<0.00024	U		52			1.1		
	31.5 ft	11/4/2009	VMP-3-31.5	5.6			<0.025	U		0.02			<0.0025	U		<0.12	U		43			36			0.77		
9/9/2010		VMP-3-31.5-090910	4.4			<0.021	U		0.017			<0.0021	U		0.018	J		47			30			1.3			
39 ft	11/4/2009	VMP-3-39	5.6			<0.025	U		0.021			<0.0025	U		<0.12	U		45			33			0.79			
VMP-4	5 ft	11/5/2009	VMP-4-5	0.69			<0.025	U		<0.0025	U		<0.0025	U		34			0.029			51			14		
		8/25/2010	VMP-4-5-082510	13			<0.029	U		0.0005	J		<0.0029	U		0.026	J		1.7			83			2.1		
	12 ft	11/5/2009	VMP-4-12	9.6			<0.025	U		<0.0025	U		<0.0025	U		0.26			2.2			84			3.8		
		8/25/2010	VMP-4-12-082510	14			<0.025	U		0.0039			<0.0025	U		0.042	J		17			66			1.2		
	23.5 ft	11/5/2009	VMP-4-23.5	6.7			<0.023	U		0.021			<0.0023	U		<0.12	U		46			32			0.75		
		8/31/2010	VMP - 4 - 23.5 - 083110	6.1			<0.029	U		0.018			<0.0029	U		<0.021	J	U	43			38			0.81		
39 ft	11/5/2009	VMP-4-39	6.6			<0.024	U		0.02			<0.0024	U		<0.12	U		44			34			1.1			
VMP-5	5 ft	11/5/2009	VMP-5-5	14			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		2.8			81			1.3		
		9/9/2010	VMP-5-5-090910	12			<0.026	U		0.0036			<0.0026	U		1.6			3.9			78			2.4		
	12.5 ft	11/6/2009	VMP-5-12.5	13			<0.026	U		0.004			<0.0026	U		<0.13	U		6.3			78			1.3		
		11/6/2009	VMP-5-12.5-D	13			<0.023	U		0.004			<0.0023	U		<0.12	U		6.3			77			1.6		
		9/9/2010	VMP-5-12.5-090910	14			<0.026	U		0.0032			<0.0026	U		0.039	J		3.7			79			1.3		
	31 ft	11/6/2009	VMP-5-31	10			<0.024	U		0.014			<0.0024	U		<0.12	U		24			58			1		
		9/9/2010	VMP-5-31-090910	9			<0.022	U		0.015			<0.0022	U		<0.01	J	U	26			55			1.5		
40 ft	11/6/2009	VMP-5-40	9.2			<0.033	U		0.012			<0.0033	U		<0.16	U		22			60			2.7			
VMP-6	5 ft	11/6/2009	VMP-6-5	13			<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		3.7			79			3.3		
		9/8/2010	VMP-6-5-090810	15			<0.026	U		0.00049	J		<0.0026	U		<0.016	J	U	1.4			82			1.4		
	10 ft	11/6/2009	VMP-6-10	14			<0.026	U		<0.0026	U		<0.0026	U		<0.13	U		4.2			78			2.7		
		9/8/2010	VMP-6-10-090810	15			<0.024	U		0.0012	J		<0.0024	U		<0.014	J	U	3.6			80			1.3		
	31.5 ft	11/9/2009	VMP-6-31.5	14			<0.022	U		0.003			<0.0022	U		<0.11	U		7.7			75			1.4		
		9/8/2010	VMP-6-31.5-090810	14			<0.026	U		0.0032			<0.0026	U		<0.13	U										

TABLE 4
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS - NATURAL GASES

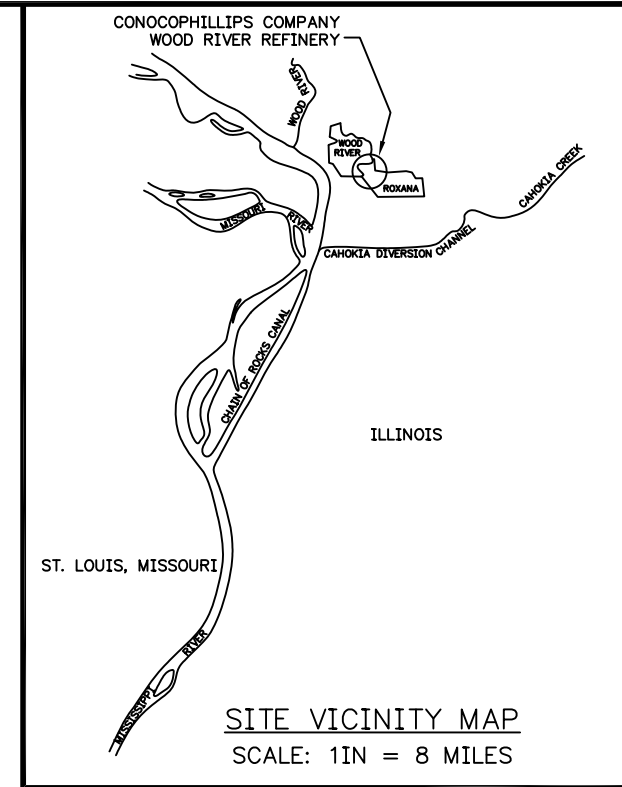
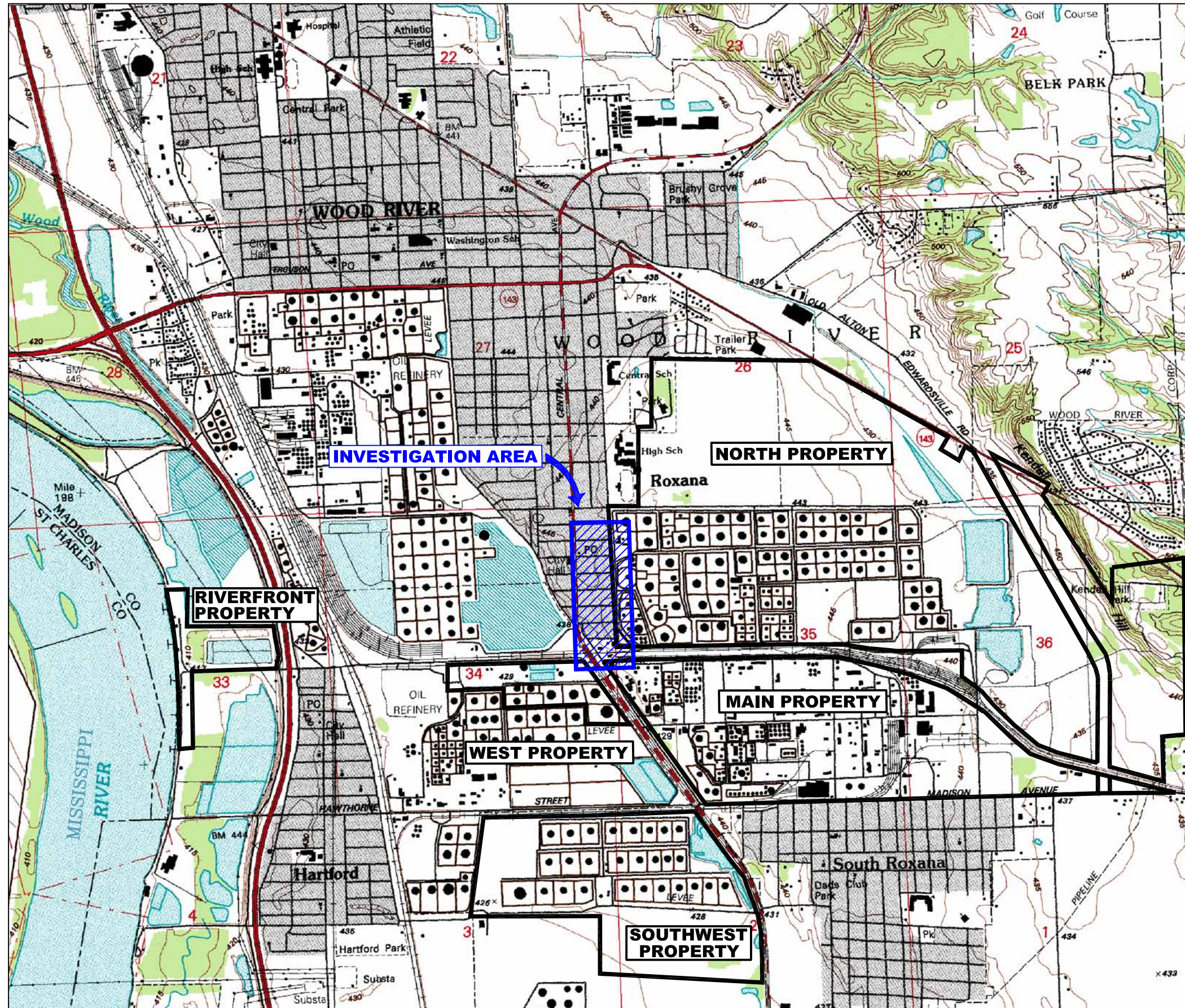
Location	Depth	Sample Date	Sample ID	Carbon Dioxide			Carbon Monoxide			Ethane			Ethene			Helium			Methane			Nitrogen			Oxygen		
				Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier
	23.5 ft	8/30/2010	VMP - 8 - 23.5 - 083010	9.3			<0.026	U		<0.0026	U		<0.0026	U		0.036	J		0.000032	J		81			9.9		
VMP-9	5 ft	11/11/2009	VMP-9-5	3.8			<0.022	U		<0.0022	U		<0.0022	U		11			<0.00022	U		69			16		
		8/26/2010	VMP-9-5-082610	10			<0.023	U		<0.0023	U		<0.0023	U		0.012	J		0.000061	J		81			9.1		
	11.5 ft	11/11/2009	VMP-9-11.5	12			<0.028	U		<0.0028	U		<0.0028	U		2.5			<0.00028	U		79			6.5		
		8/26/2010	VMP-9-11.5-082610	15			<0.026	U		0.00015	J		<0.0026	U		0.042	J		1.8			82			1.4		
	25.5 ft	11/10/2009	VMP-9-25.5	17			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		3.8			78			1.2		
		11/10/2009	VMP-9-25.5-D	16			<0.025	U		<0.0025	U		<0.0025	U		<0.12	U		3.8			79			1.3		
		8/26/2010	VMP-9-25.5-082610	14			<0.024	U		0.00042	J		<0.0024	U		0.012	J	J	4.3			80			1.7		
		8/26/2010	VMP-9-25.5-082610-DUP	14			<0.026	U		0.0004	J		<0.0026	U		0.04	J	J	4.3			80			1.5		
	38.5 ft	11/10/2009	VMP-9-38.5	17			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		3.2			78			1.2		
VMP-10	5 ft	11/11/2009	VMP-10-5	3.9			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		<0.00022	U		78			18		
		9/7/2010	VMP-10-5-090710	5.2			<0.026	U		<0.0026	U		<0.0026	U		<0.015	J	U	0.00017	J		80			15		
	10 ft	11/11/2009	VMP-10-10	9.9			<0.023	U		<0.0023	U		<0.0023	U		<0.11	U		<0.00023	U		79			11		
		9/7/2010	VMP-10-10-090710	7.6			<0.026	U		<0.0026	U		<0.0026	U		<0.0068	J	U	0.00013	J		79			13		
	20 ft	11/11/2009	VMP-10-20	0.15		J	<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		<0.00022	U		78			22		
		11/11/2009	VMP-10-20-D	0.23		J	<0.025	U		<0.0025	U		<0.0025	U		0.58			<0.00025	U		78			21		
		9/7/2010	VMP-10-20-090710	0.22			<0.056	U		<0.0056	U		<0.0056	U		<0.0079	J	U	0.00019	J		80			20		
	9/7/2010	VMP-10-20-090710-DUP	0.16			<0.052	U		<0.0052	U		<0.0052	U		0.076	J		0.00025	J		74			26			
30 ft	11/13/2009	VMP-10-30	16			<0.025	U		<0.0025	U		<0.0025	U		<0.12	U		<0.00025	U		81			3.4			
VMP-11	5 ft	11/17/2009	VMP-11-5	7.8			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		1			87			4.4		
		9/7/2010	VMP-11-5-090710	8			<0.025	U		<0.0025	U		<0.0025	U		<0.0071	J	U	0.00072			80			12		
	8 ft	11/17/2009	VMP-11-8	11			<0.025	U		<0.0025	U		<0.0025	U		0.21			0.01			84			5.1		
		9/8/2010	VMP-11-8-080910	7.8			<0.053	U		<0.0053	U		<0.0053	U		0.018	J		0.0011			76			16		
	29 ft	11/18/2009	VMP-11-29	17			<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		0.14			80			2.4		
		9/8/2010	VMP-11-29-090810	14			<0.026	U		<0.0026	U		<0.0026	U		1			0.048			83			1.6		
	38 ft	11/18/2009	VMP-11-38	16			<0.03	U		<0.003	U		<0.003	U		<0.15	U		0.35			81			1.8		
VMP-12	5 ft	11/13/2009	VMP-12-5	14			<0.025	U		<0.0025	U		<0.0025	U		<0.13	U		33			50			0.9		
		9/3/2010	VMP-12-5-090310	12			<0.027	U		0.0012	J		<0.0027	U		<0.13	U		36			49			0.97		
	11.5 ft	11/13/2009	VMP-12-11.5	14			<0.022	U		<0.0022	U		<0.0022	U		<0.11	U		34			49			0.84		
		9/3/2010	VMP-12-11.5-090310	13			<0.028	U		0.0011	J		<0.0028	U		<0.14	U		38			46			1.1		
	25 ft	11/13/2009	VMP-12-25	14			<0.023	U		<0.0023	U		<0.0023	U		<0.11	U		33			49			0.84		
		9/3/2010	VMP-12-25-090310	13			<0.026	U		0.0012	J		<0.0026	U		<0.0038	J	U	36			47			0.99		
39 ft	11/13/2009	VMP-12-39	14			<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		32			50			0.95			
VMP-13	5 ft	11/16/2009	VMP-13-5	14			<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		0.82			82			2.5		
		9/13/2010	VMP 13-5-091310	8.4			<0.026	U		<0.0026	U		<0.0026	U		<0.13	U		0.00088			84			7		
	10.5 ft	11/17/2009	VMP-13-10.5	0.14		J	<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		0.0079		J	80			20		
		11/17/2009	VMP-13-10.5-D	0.23		J	<0.025	U		<0.0025	U		<0.0025	U		<0.12	U		0.015		J	79			21		
		9/13/2010	VMP 13-10.5-091310	11			<0.049	U		<0.0049	U		<0.0049	U		<0.24	U		0.068			86			3.4		
		9/13/2010	VMP 13-10.5-091310-Dup	11			<0.048	U		<0.0048	U		<0.0048	U		<0.24	U		0.076			85			3.6		
	21.5 ft	11/17/2009	VMP-13-21.5	15			<0.021	U		<0.0021	U		<0.0021	U		<0.11	U		1.6			81			1.3		
		9/13/2010	VMP 13-21.5-091310	12			<0.024	U		0.00034	J		<0.0024	U		<0.12	U		2			83			2.5		
29.5 ft	11/17/2009	VMP-13-29.5	13			<0.024	U		<0.0024	U		<0.0024	U		<0.12	U		1.6			81			1.7			
VMP-14	5 ft	11/20/2009	VMP-14-5	2			<0.026	U		<0.0026	U		<0.0026	U		0.13			0.0013			87			11		
		9/10/2010	VMP 14-5-091010	19			<0.025	U		0.0063			<0.0025	U		0.01	J		10			69			1.8		

TABLE 4
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS - NATURAL GASES

Location	Depth	Sample Date	Sample ID	Carbon Dioxide			Carbon Monoxide			Ethane			Ethene			Helium			Methane			Nitrogen			Oxygen		
				Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier	Result (%)	Lab Qualifier	URS Qualifier
VMP-16	13.5 ft	11/19/2009	VMP-16-13.5	0.79			<0.024	U		<0.0024	U		<0.0024	U		24			0.1			58			17		
		9/2/2010	VMP-16-13.5-090210	19			<0.025	U		0.0014	J		<0.0025	U		<0.017	J	U	46			34			0.78		J
		9/2/2010	VMP-16-13.5-090210-DUP	18			<0.025	U		0.0014	J		<0.0025	U		<0.02	J	U	45			35			2		J
	19 ft	11/19/2009	VMP-16-19	2.2			<0.026	U		<0.0026	U		<0.0026	U		14			3.9			65			15		
		9/2/2010	VMP-16-19-090210	19			<0.025	U		0.0014	J		<0.0025	U		<0.12	U		51			28			0.73		
	31 ft	11/19/2009	VMP-16-31	4			<0.023	U		<0.0023	U		<0.0023	U		8.7			12			66			9.2		
		11/19/2009	VMP-16-31-D	3.7			<0.023	U		<0.0023	U		<0.0023	U		8.4			11			67			9.4		
		9/3/2010	VMP-16-31-090310	0.09			<0.061	U		<0.0061	U		<0.0061	U		22			0.00046	J		62			16		
VMP-17	5 ft	6/21/2010	VMP-17-5	6.7			<0.029	U		<0.0029	U		<0.0029	U		<0.14	U		0.00014	J		81			12		
		6/21/2010	VMP-17-5-DUP	6.8			<0.03	U		<0.003	U		<0.003	U		<0.15	U		0.00018	J		81			12		
		9/1/2010	VMP-17-5-090110	7.8			<0.054	U		<0.0054	U		<0.0054	U		0.089	J		<0.000048	J	U	80			12		
VMP-18	8.5 ft	6/18/2010	VMP-18-8.5	7.7			<0.029	U		<0.0029	U		<0.0029	U		<0.14	U		0.000026	J		81			11		
		9/7/2010	VMP-18-8.5-090710	9.3			<0.026	U		<0.0026	U		<0.0026	U		0.021	J		0.00011	J		80			11		
VMP-19	5 ft	6/18/2010	VMP-19-5	8.7			<0.027	U		<0.0027	U		<0.0027	U		0.03			<0.00027	U		79			12		
		9/1/2010	VMP-19-5-090110	10			<0.053	U		<0.0053	U		<0.0053	U		0.049	J		0.00099			81			9.1		

Notes
1. J = Indicates the result is estimated.
2. U = Indicates the analyte was not detected below the MDL.

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US-B-ROXANA-ROUTE 111\2156XXX-ROXANA INVESTIGATION & ASSESSMENT\DRAWINGS\FIG 1 SITE LOCATION MAP.DWG Last edited: 09/10/10 @ 12:41 p.m. © WCC-ST LOUIS



LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

SOURCE: MAP TAKEN FROM ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, ILL-MO REVISED 1994.

CONTOUR INTERVAL = 5 FT

0 2000

SCALE FEET

SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

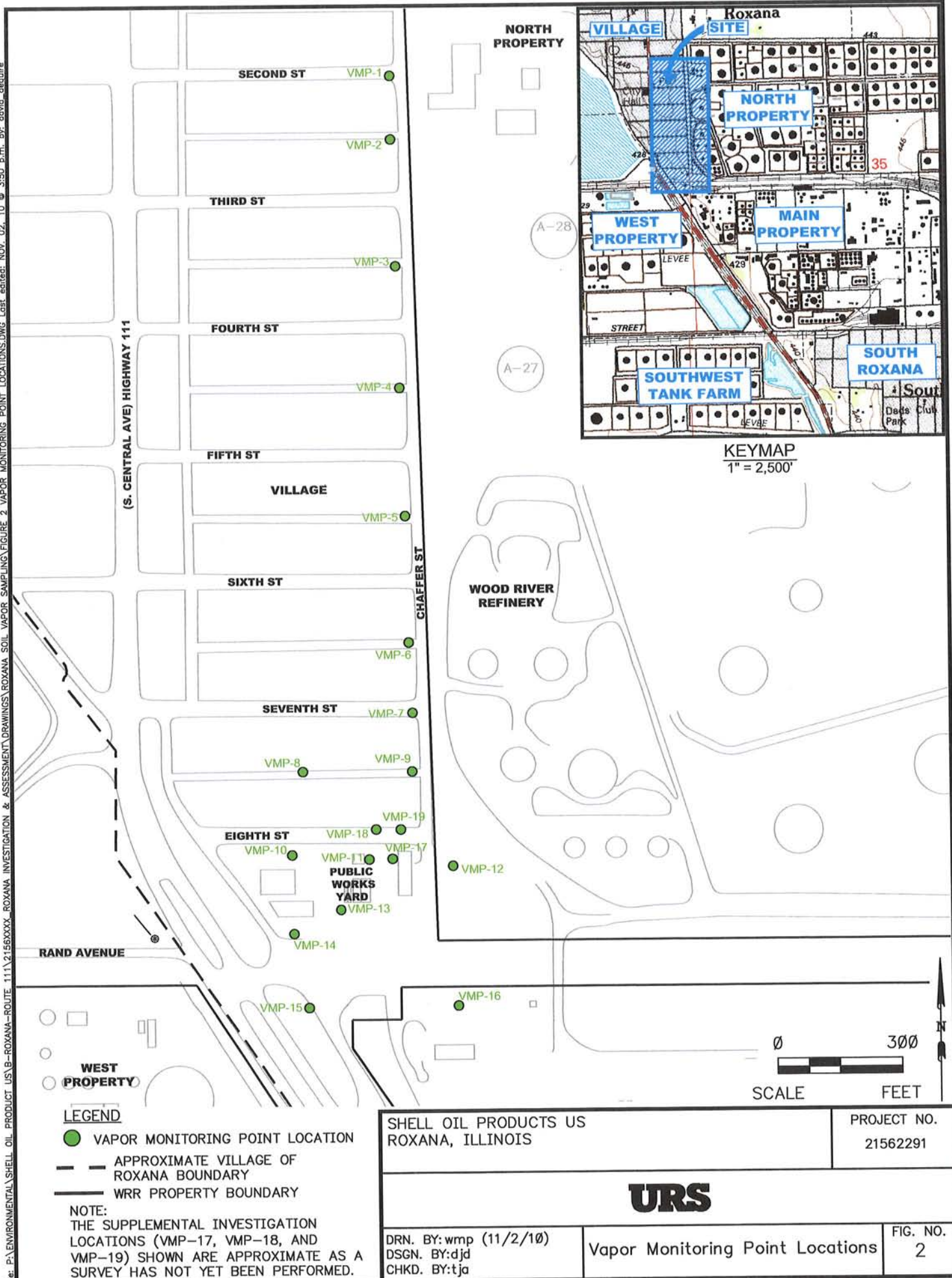
PROJECT NO.
21562291

URS

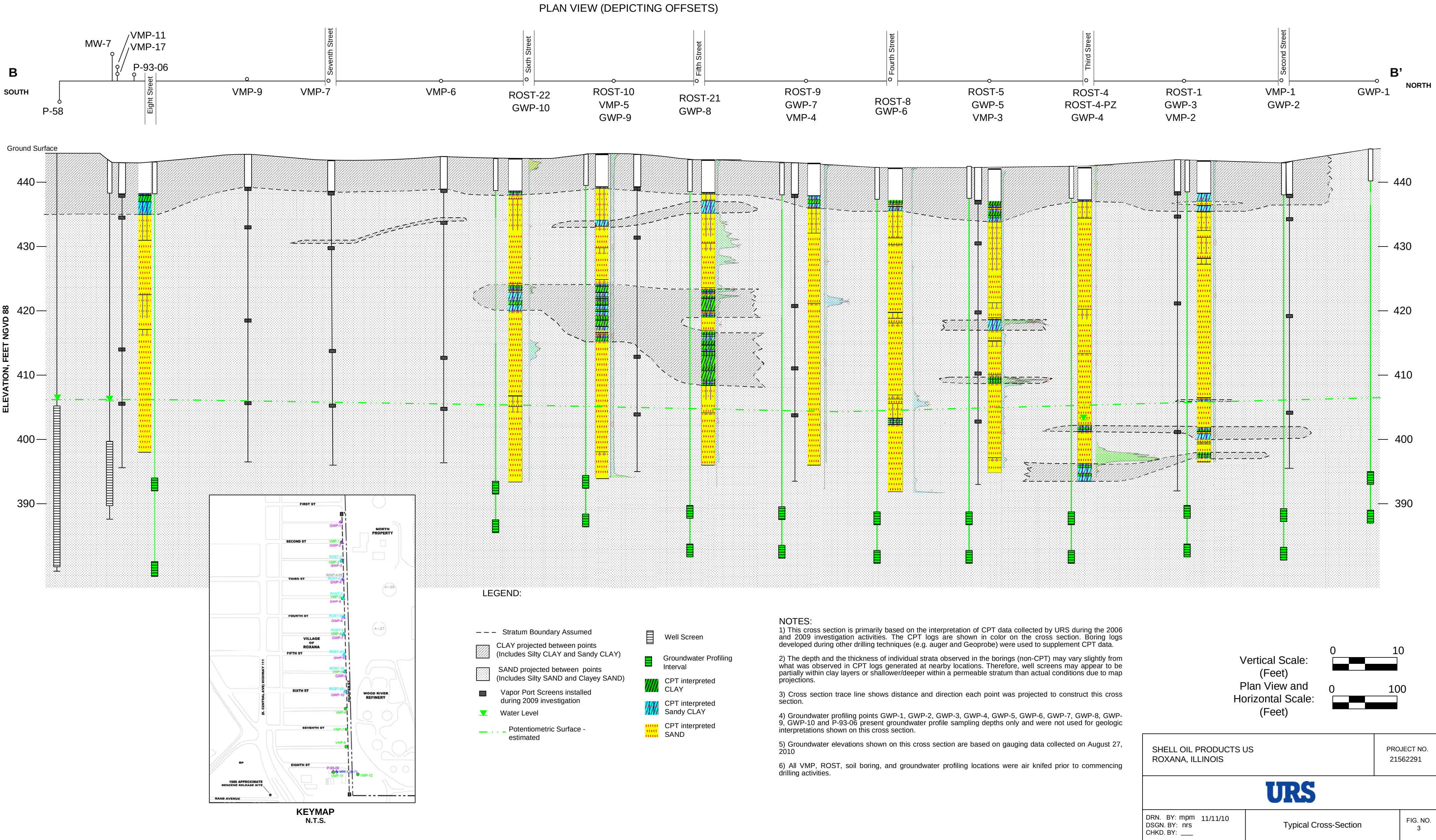
DRN. BY: djd 2/16/10
DSGN. BY: djd
CHKD. BY: wmp

Site Location Map

FIG. NO.
1



P:\Environmental\Shell Oil Product US\B-Roxana-Route 111\2156XXXX_Roxana Investigation & Assessment\Drawings\Figure 3 - Typical Cross Section 11-B-10.vsd Last edit: 11/12/2010 12:37:46 PM

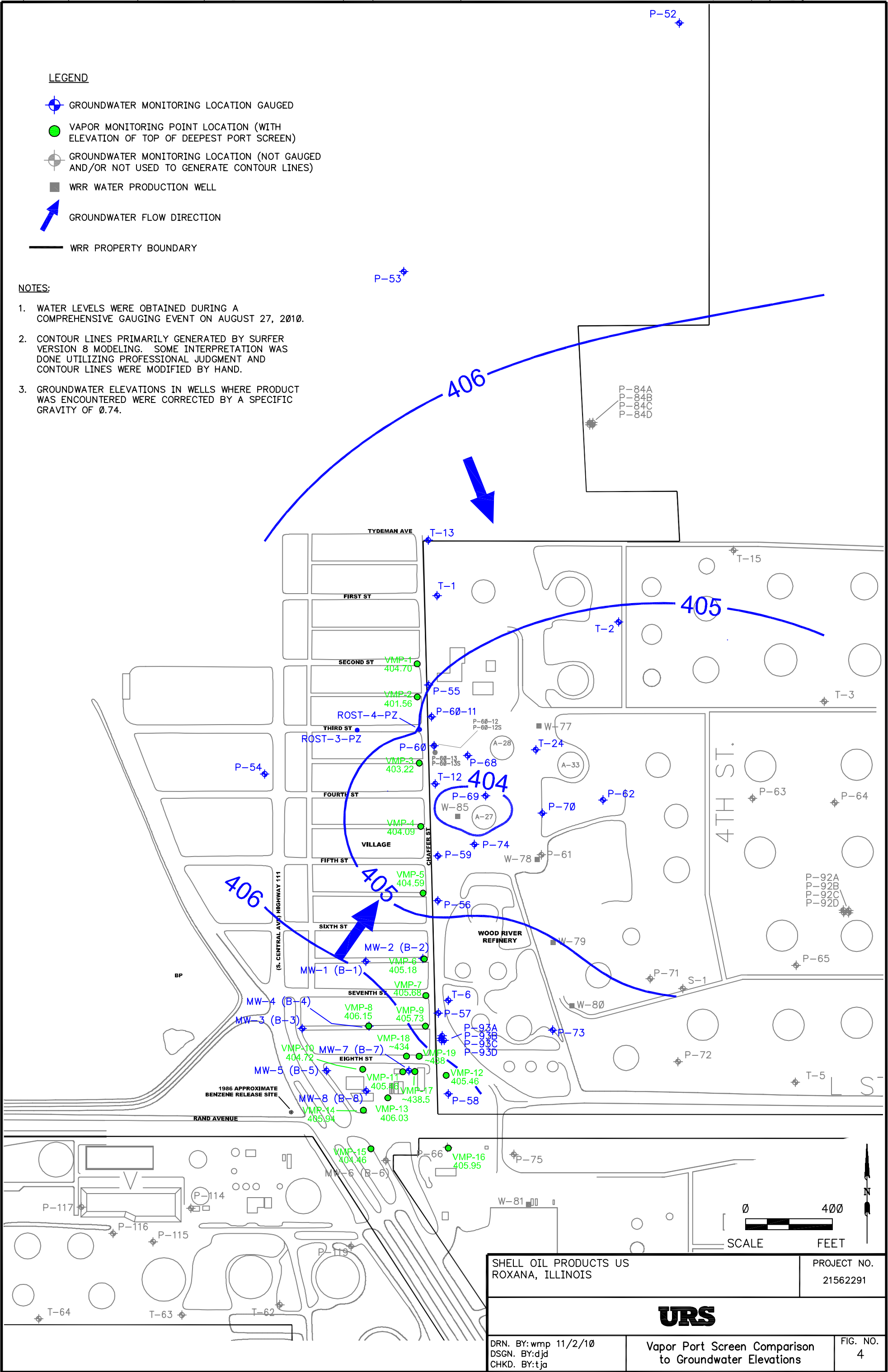


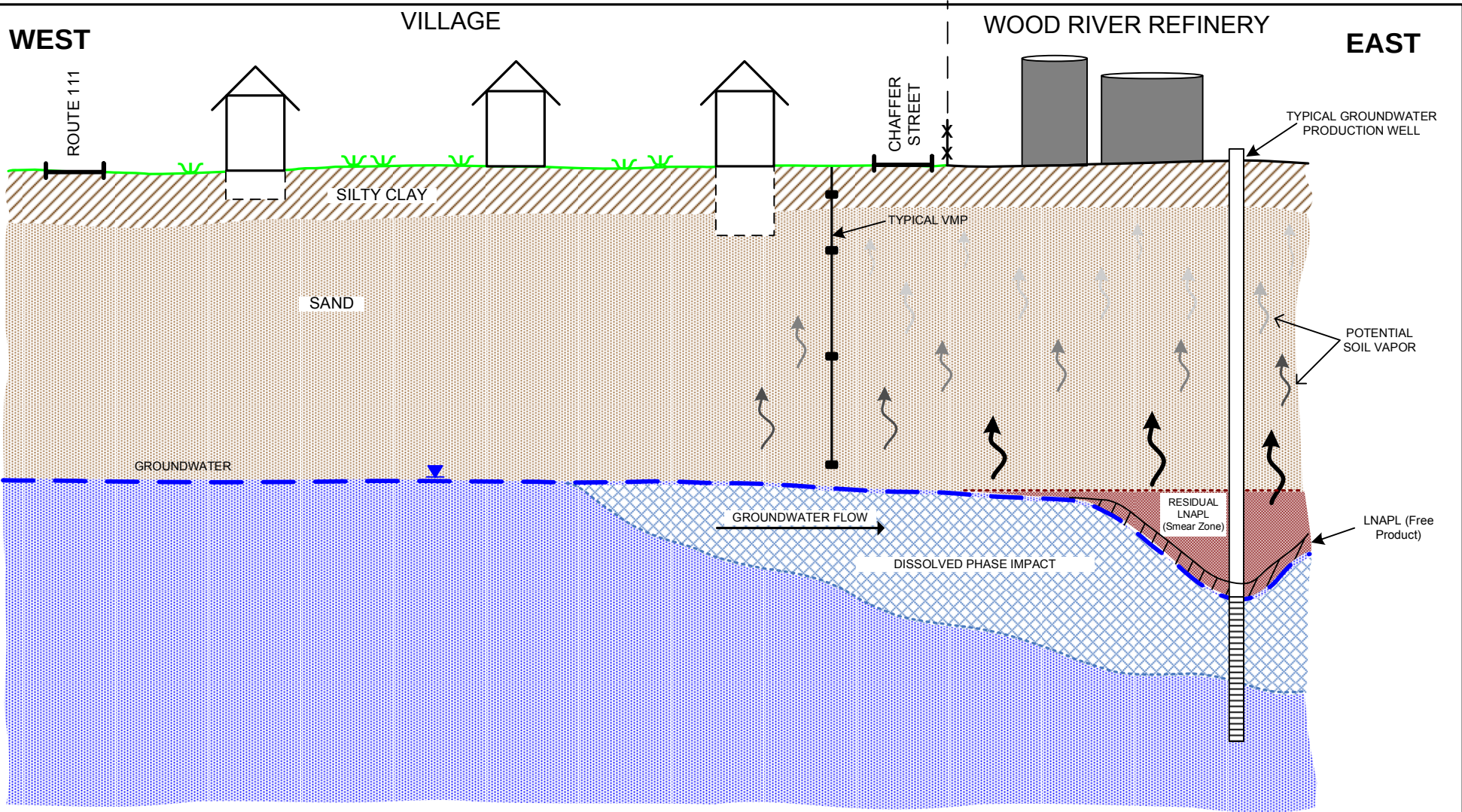
LEGEND

- GROUNDWATER MONITORING LOCATION GAUGED
- VAPOR MONITORING POINT LOCATION (WITH ELEVATION OF TOP OF DEEPEST PORT SCREEN)
- GROUNDWATER MONITORING LOCATION (NOT GAUGED AND/OR NOT USED TO GENERATE CONTOUR LINES)
- WRR WATER PRODUCTION WELL
- GROUNDWATER FLOW DIRECTION
- WRR PROPERTY BOUNDARY

NOTES:

- WATER LEVELS WERE OBTAINED DURING A COMPREHENSIVE GAUGING EVENT ON AUGUST 27, 2010.
- CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
- GROUNDWATER ELEVATIONS IN WELLS WHERE PRODUCT WAS ENCOUNTERED WERE CORRECTED BY A SPECIFIC GRAVITY OF 0.74.





NOTES:

NOT TO SCALE

SHELL OIL PRODUCTS US ROXANA, ILLINOIS		PROJECT NO. 21562291
DRN. BY: wmp (11/2/10) DSGN. BY: b3 CHKD. BY: b3	Conceptual Site Model	FIG. NO. 6

LEGEND

VAPOR MONITORING POINT LOCATION

NOTES:

1. SOIL VAPOR SAMPLES WERE ANALYZED FOR EPA METHOD TO-15 CONSTITUENTS AND NATURAL GASES VIA ASTM METHOD D-1946. ANALYTICAL RESULTS FOR BENZENE ONLY ARE SHOWN ON THIS FIGURE.
2. HISTORICAL DATA ORIGINALLY COLLECTED FOURTH QUARTER, 2009, EXCEPT FOR VMP-3-10, VMP-17-5, VMP-18-8.5, AND VMP-19-5 WHICH WERE INSTALLED AND SAMPLED INITIALLY SECOND QUARTER, 2010.
3. BOTTOM PORTS OF VMP-1 THROUGH VMP-16 WERE BELOW THE WATER TABLE THIRD QUARTER, 2010. NO SAMPLES COLLECTED.
4. BENZENE CONCENTRATIONS THAT EXCEED SCREENING CRITERION (41 mg/m³) IN THE UPPER 15 FEET BELOW GROUND SURFACE (BGS) ARE HIGHLIGHTED IN YELLOW (NO EXCEEDANCES).
5. BENZENE CONCENTRATIONS THAT EXCEED SCREENING CRITERION (41 mg/m³) BELOW 15 FEET BGS ARE HIGHLIGHTED IN GREEN.
6. QUALIFIER DEFINITION:
J = RESULT IS ESTIMATED.

TYDEMAN AVE

FIRST ST

SECOND ST

THIRD ST

FOURTH ST

FIFTH ST

VILLAGE

(S. CENTRAL AVE) HIGHWAY 111

CHAFFER ST

SEVENTH ST

EIGHTH ST

RAND AVENUE

PUBLIC WORKS YARD

WOOD RIVER REFINERY

A-33

A-27

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-8	5 ft	<0.003	0.021
	9.5 ft	<0.003	0.015 J / 0.012 J
	23.5 ft	<0.003	0.013
	35.5 ft	Not Sampled	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-6	5 ft	5.8 J	1
	10 ft	6.4	2.9 J
	31.5 ft	28	29
	39 ft	40	Not Sampled

Location	Depth	Benzene (mg/m³)	
		2Q 10	3Q 10
VMP-18	8.5 ft	0.0048	0.093

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-1	5 ft	<0.38	0.044
	8.5 ft	<0.52	0.0079 J
	23.5 ft	<1.3	1.4
	38.5 ft	3.80	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-2	5 ft	<0.46	0.89 J
	8.5 ft	<0.16 / <0.17	1.4
	22 ft	<0.89	1.7 J
	42 ft	84.00	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09²	3Q 10
VMP-3	5 ft	<0.017	7.8
	10 ft	8.6	14 / 9J
	22 ft	52	34
	31.5 ft	240	210
	39 ft	240	Not Sampled

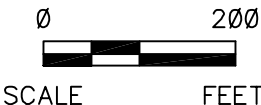
Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-4	5 ft	<0.04	0.27
	12 ft	3.2	28
	23.5 ft	540	490 J
	39 ft	660	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-5	5 ft	1.5	7.6 J
	12.5 ft	5.8 / 6	11
	31 ft	160	200
	40 ft	70	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-7	5 ft	0.015	0.012
	13.5 ft	<0.028	0.15
	29.5 ft	120 J	86 J
	38 ft	54 J	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q 09	3Q 10
VMP-9	5 ft	<0.003	0.0088
	11.5 ft	<0.003	0.16
	25.5 ft	12 / 4.9	3.2 / 3.3
	38.5 ft	1,300	Not Sampled

Location	Depth	Benzene (mg/m³)	
		2Q 10	3Q 10
VMP-19	5 ft	0.02	0.019



SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

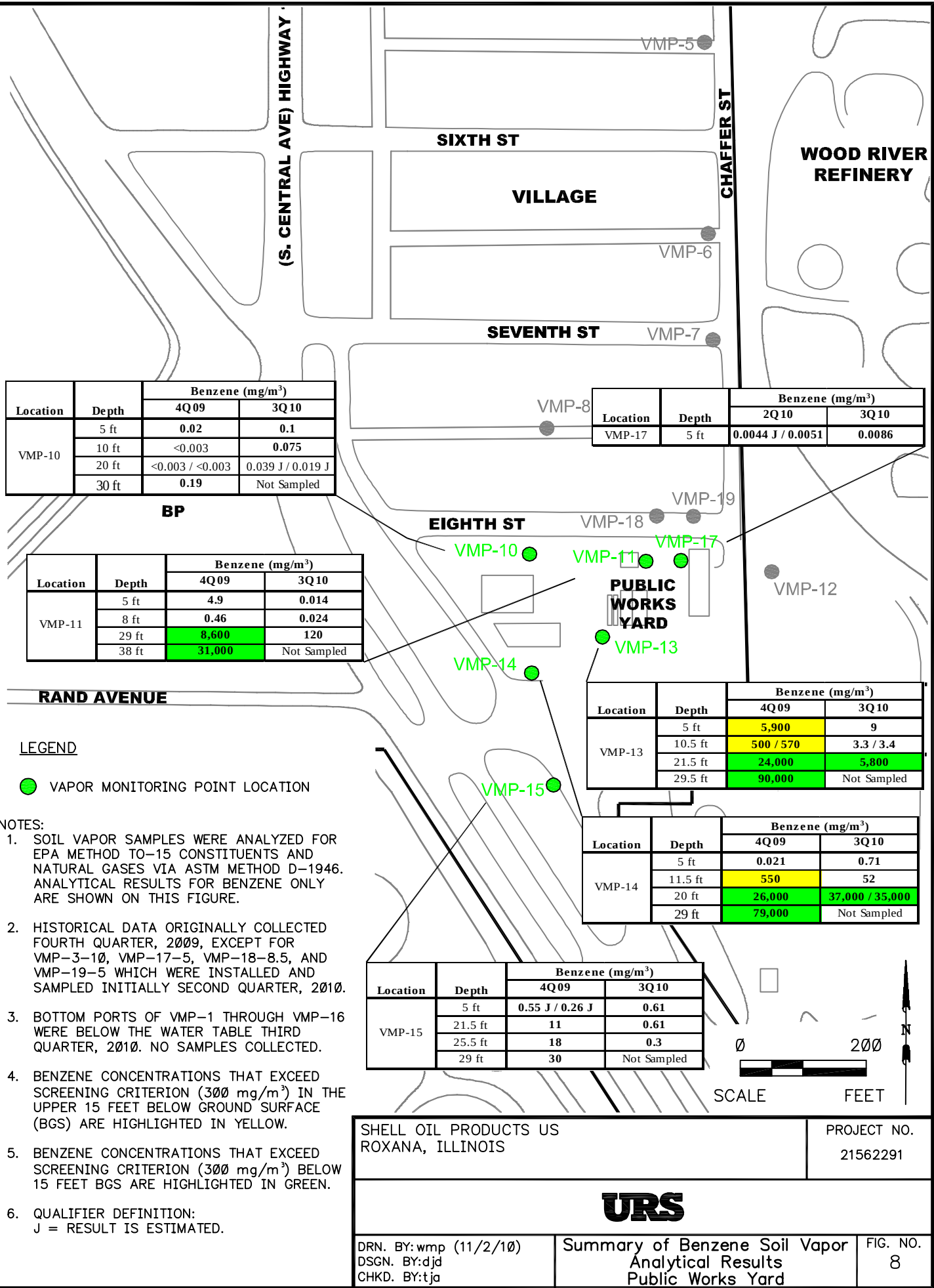
PROJECT NO.
21562291

URS

DRN. BY: wmp (11/2/10)
DSGN. BY: djd
CHKD. BY: tja

Summary of Benzene Soil Vapor
Analytical Results –
Village

FIG. NO.
7



Location	Depth	Benzene (mg/m³)	
		4Q09	3Q10
VMP-10	5 ft	0.02	0.1
	10 ft	<0.003	0.075
	20 ft	<0.003 / <0.003	0.039 J / 0.019 J
	30 ft	0.19	Not Sampled

BP

Location	Depth	Benzene (mg/m³)	
		4Q09	3Q10
VMP-11	5 ft	4.9	0.014
	8 ft	0.46	0.024
	29 ft	8,600	120
	38 ft	31,000	Not Sampled

RAND AVENUE

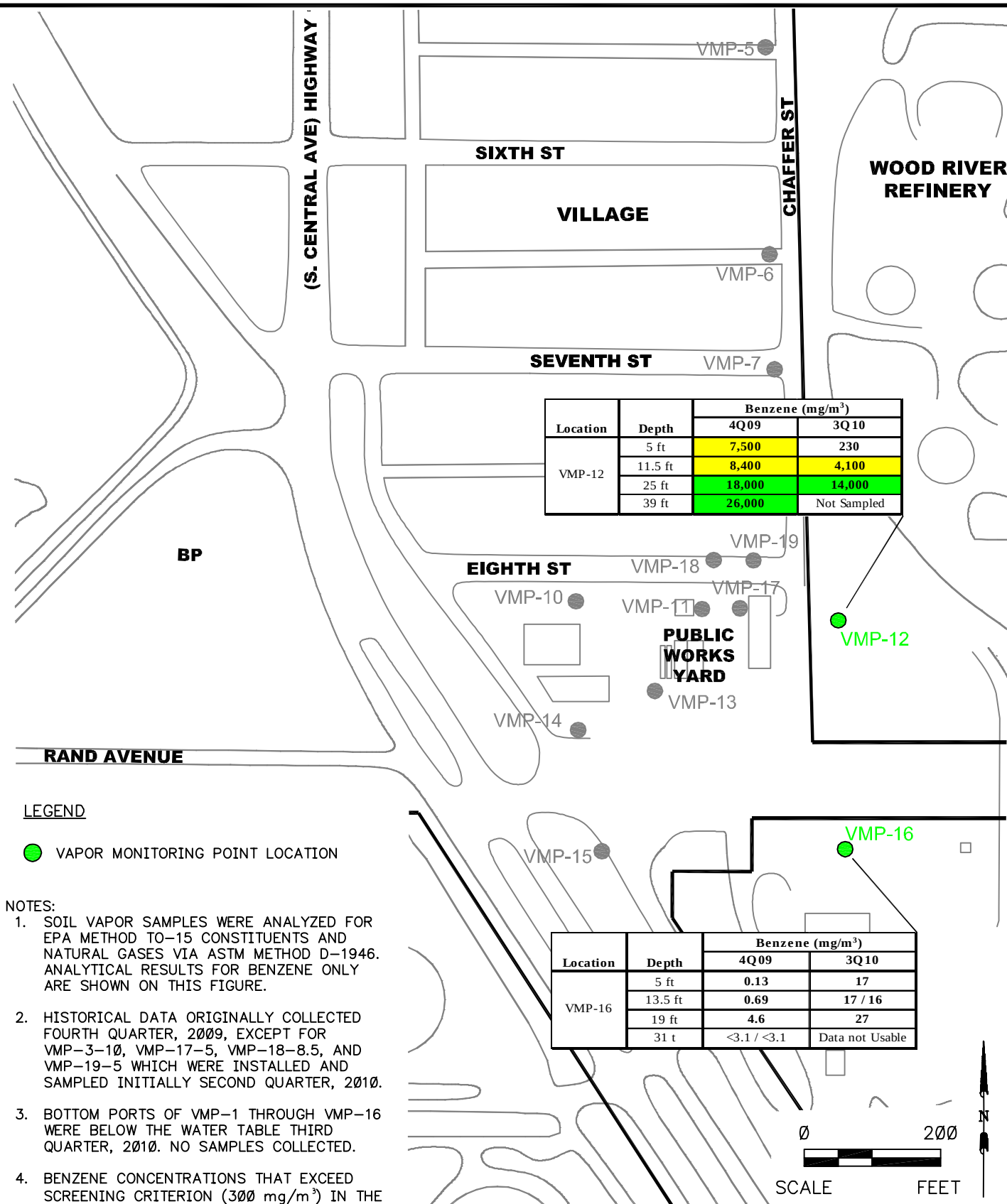
Location	Depth	Benzene (mg/m³)	
		2Q10	3Q10
VMP-17	5 ft	0.0044 J / 0.0051	0.0086

Location	Depth	Benzene (mg/m³)	
		4Q09	3Q10
VMP-13	5 ft	5,900	9
	10.5 ft	500 / 570	3.3 / 3.4
	21.5 ft	24,000	5,800
	29.5 ft	90,000	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q09	3Q10
VMP-14	5 ft	0.021	0.71
	11.5 ft	550	52
	20 ft	26,000	37,000 / 35,000
	29 ft	79,000	Not Sampled

Location	Depth	Benzene (mg/m³)	
		4Q09	3Q10
VMP-15	5 ft	0.55 J / 0.26 J	0.61
	21.5 ft	11	0.61
	25.5 ft	18	0.3
	29 ft	30	Not Sampled

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SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

PROJECT NO.
21562291

URS

DRN. BY:wmp (11/1/10)
DSGN. BY:djd
CHKD. BY:tja

Summary of Benzene Soil Vapor
Analytical Results –
WRR

FIG. NO.
9

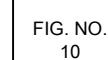
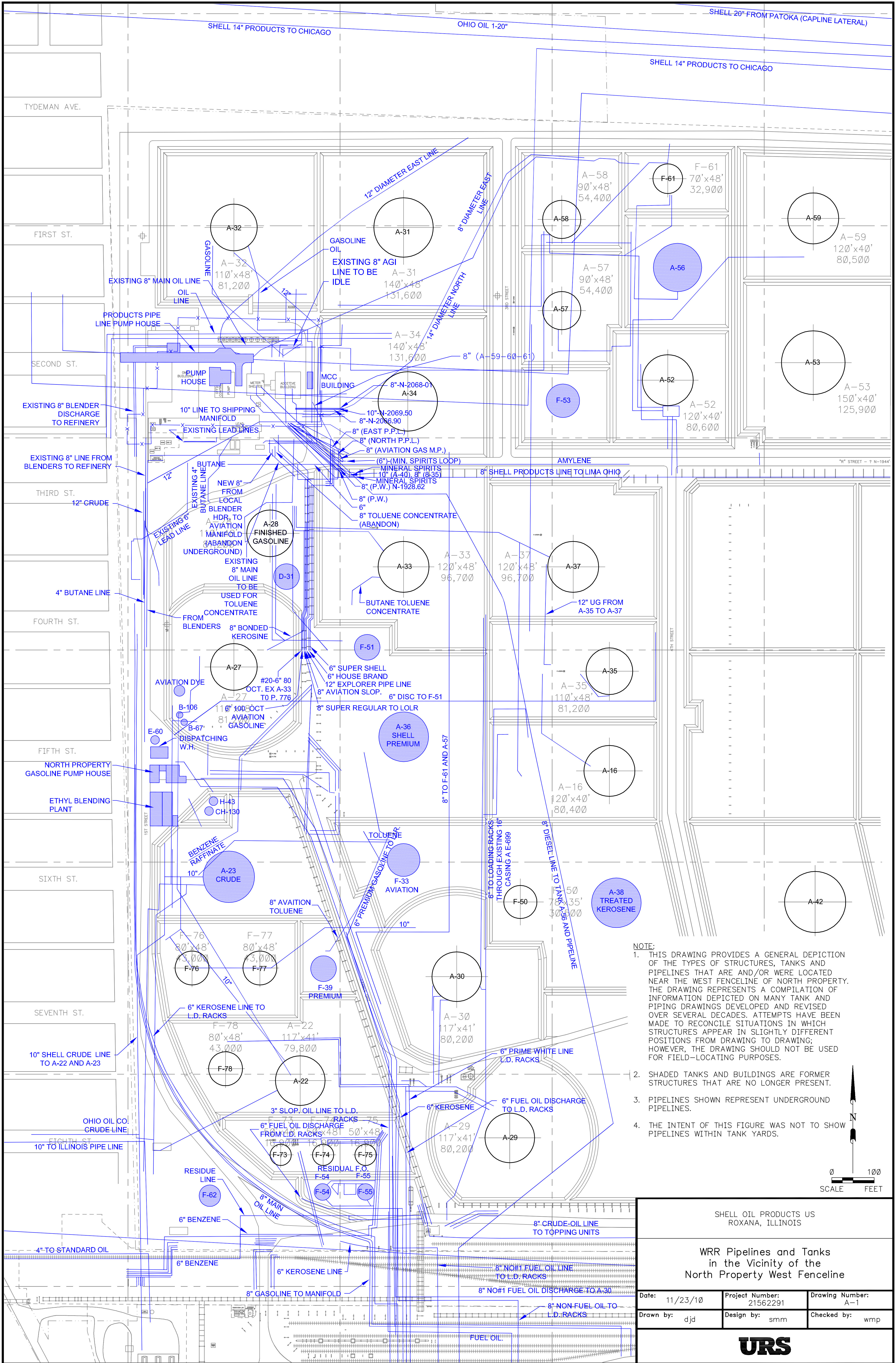


TABLE A-1
SUMMARY OF WRR TANK INSPECTION RECORDS

TANK	DATE	INSPECTION RECORD NOTES
A-22	12/8/1961	A leak developed at the bottom on the SW side of the tank. The leak was excavated and oil appeared from under the bottom. The excavation was backfilled and inspected every 3 months for 1 year with no further evidence of leaks noted.
	9/22/1998	Underground piping (10" discharge line) was said to have been leaking in the tank yard. The line was repaired.
A-23		No records found. Tank demoed shortly after sale date.
A-27	5/20/2002	Existing floor has 30 through holes, most of significant size, believed to have been caused during construction activity.
A-28	5/13/1977	Sample line nozzle leak at pad.
	7/3/1968	Mixer packing leaking at shaft.
A-32		No leaks mentioned in records.
F-39	5/26/1954	Several minor seam leaks on shell, some of which evident by staining at rivets.
	5/11/1965	Numerous (20) minor seam leaks on shell evident by staining at rivets.
F-73	4/6/1975	Tank was overfilled and roof plate buckled.
	6/31/01	Leak on repad on 8-inch nozzle.
F-74	6/26/1968	Holes were detected in the bottom due to underside corrosion. Hydro test proved satisfactory after all bottom repairs.
	3/1/1984	Repair 1 hole in floor plate.
F-75		No leaks mentioned in records.
F-76	3/29/1999	A leak occurred on the F76/77 discharge line. Line was excavated and inspected visually and UT surveyed. Two holes, due to isolated corrosion, were found on the bottom of the excavated piping. New piping spools were put into place.
	1/2/2003	Two pinhole leaks found on the W quadrant of the tank. Approximately 1 gallon of #6 oil lost to ground. Plan to remove product from tank to barge on 1/3/03 and will investigate further.
F-77		No leaks mentioned in records.
F-78	6/1/1968	Internal visual inspection revealed several holes due to underside corrosion. Holes were patched.

Note:

1. The information given in the table above represents the information provided by ConocoPhillips on the tank inspection records. The location of these tanks can be found on **Figure A-1**.



1. Objective

This document defines the standard operating procedure (SOP) and necessary equipment for collection of soil vapor samples from vapor monitoring points / sampling ports using Summa™ canisters.

SOPs providing additional related guidance are listed below:

- SOP No. 3 – Calibration and maintenance of Field Instruments
- SOP No. 4 – Decontamination
- SOP No. 8 – Field Reporting and Documentation
- SOP No. 26 – Sample Control and Custody Procedures
- SOP No. 46 – Air Sampling with Summa Canisters
- SOP No. 49 – Vapor Sampling Classification, Packaging, and Shipping

2. Equipment

Personnel implementing this guideline must ensure that the following are in place:

- Field book
- Disposable nitrile gloves
- Ultra-fine permanent marker
- Paper towels or Kimwipes
- Calculator
- Decontamination equipment
- Soil vapor sampling logs
- Small brush or broom
- 15 mL hand pump with gauge (inches Hg)
- Peristaltic pump
- Rotometer or equivalent
- PID, 4-gas meter, landfill gas detector (e.g., Mini-RAE, QRAE, Landtec GEM 500)
- Summa canisters with flow controllers (supplied by the laboratory)
- Tedlar bags (2 - 1 liter and 1 - 3 liter per sample)



- Swagelok[®] T-Connector (2 per sample train assembly) – ¼” ID
- Swagelok[®] Ball Valves (3 per sample train assembly) – ¼” ID
- Swagelok[®] Barb Connector (2 per sample train assembly) – ¼” ID
- Swagelok[®] Port Connectors (2 per sample train assembly) – ¼” ID
- Swagelok[®] Ferrules (6 per sample) – ¼” ID
- Swagelok[®] Nuts (6 per sample) – ¼” ID
- Vacuum gauge (0 – 30 inches Hg)
- Teflon[®] tubing (food- or laboratory-grade) – 1/8” ID – ¼” OD
- Tygon[®] tubing (food- or laboratory-grade) – 3/16” ID – 3/8” OD
- Tracer gas (e.g. Grade 5 helium)
- Tracer gas shroud (e.g., plastic tote)
- Tracer gas meter (e.g., Dielectric Technologies MGD-2002 or equivalent)
- Watch or timer
- Standard field tools (e.g., ratchet set, safety cutting tools, pry bar, etc.)
- Shipping supplies (e.g., UN boxes, shipping labels, hazard labels, packing tape)

3. Vapor Port Development Purging

If the port has been newly installed, the port must be developed by purging 3 volumes of the sampling assembly including 3 volumes of the sand pack.

1. Open vapor point vault to check integrity of individual soil vapor monitoring port(s) (VMP). Each port should be closed with it's cap in place.
2. Remove port cap and attach Swagelok[®] barb connector.
3. Connect peristaltic pump and Tygon tubing connected to barb connector.
4. Calculate Purge volume:
 - Vapor Port tubing (1/8-in diameter): 2.41 mL/foot (single volume)
 - Sample train assembly (1/4-in diameter): 9.65 mL/foot (single volume)
 - Sand Pack: 18,765 mL (4.95 gallons – single volume – assuming 18 inch sand pack)

5. Begin purging port at a rate no greater than 2 L/min. Replace vapor point cap and move to next depth or replace vault cover and clean up at location
6. Decontaminate any non-designated equipment (e.g., Swagelok[®] connectors and valves) following procedures listed in **Section 7**.

4. Vapor Port Sampling – With No Tracer Gas

1. Open vapor point vault to check integrity of individual soil vapor monitoring port(s) (VMP). Each port should be closed with it's cap in place
2. Perform Summa canister vacuum check, per the steps listed in **Section 6** of this SOP.
3. Setup the sample train configuration as shown in **Figure 1**. Teflon[®] tubing will be connected directly using Swagelok[®] ferrule connections. The flow controller (one for each Summa canister provided by the laboratory) will be connected to the Summa canister inlet. **Do not reuse flow controllers** between locations. Each flow controller is pre-set by the laboratory to collect the sample over a half-hour period. Flow controllers can be set to a different rate if desired by project, depending on size of container to be filled. For a 1-Liter Summa canister, a half-hour is a standard collection time (~28 ml/min).
4. Perform sample train leak check, per the steps listed in **Section 6** of this SOP.
5. Remove Swagelok[®] Cap and attach sample train.
6. Open Port Valve.
7. Calculate Purge volume:
 - Vapor Port tubing (1/8-in diameter): 2.41 mL/foot (single volume)
 - Sample train assembly (1/4-in diameter): 9.65 mL/foot (single volume)
8. Open Valve #1.
9. Purge the three volumes from the vapor monitoring port purge using the 15 mL hand pump. If the pump pulls back or the gauge holds a vacuum, and the purge cannot be completed, the VMP screen may be saturated with water and will not yield a representative sample. If this happens, do not sample the VMP. Similarly, if water is pulled out during the purge, do not sample the VMP.
10. Open Summa[™] canister valve completely and record the time.

11. After approximately 30 minutes, or if the vacuum gauge reading drops below 5 inches Hg before 30 minutes, close the Summa canister valve completely. Record the time. **The vacuum gauge should reach less than 10 inches Hg, but should not be allowed to drop below 2 inches of Hg.**
12. Connect peristaltic pump to tubing connected to Valve #1 and open Valve #1 to collect a sample in a Tedlar bag. The Tedlar bag should be filled at a rate no faster than 200 ml/min.
13. Disassemble the sample train. Replace Swagelok® plug on the vapor monitoring port.
14. From the soil vapor in the Tedlar bag obtain readings for total volatile organics with a photoionization detector (PID), for H₂S, CO, oxygen (O₂), and lower explosive limit (LEL) with a 4-gas meter, and for CO₂, CH₄, LEL, and oxygen (O₂) with a landfill gas meter. Record readings on the Soil Vapor Sampling sheet
15. Perform Summa™ canister vacuum check, per the steps listed in **Section 6** of this SOP.
16. Replace Swagelok® vapor port plug and move to next depth, or replace vault cover and clean up at location.
17. Decontaminate any non-designated equipment (e.g., Swagelok® connectors and valves) following procedures listed in **Section 7**.

5. Vapor Port Sampling – With Tracer Gas Shroud

1. Open vapor point vault to check integrity of individual soil vapor monitoring port(s) (VMP). Each port should be closed with it's cap in place
2. Perform Summa canister vacuum check, per the steps listed in **Section 6** of this SOP.
3. Setup the sample train configuration as shown in **Figure 2**. Teflon® tubing will be connected directly using Swagelok® ferrule connections. The flow controller (one for each Summa canister provided by the laboratory) will be connected to the Summa canister inlet. **Do not reuse flow controllers** between locations. Each flow controller is pre-set by the laboratory to collect the sample over a half-hour period. Flow controllers can be set to a different rate if desired by project, depending on size of container to be filled. For a 1-Liter Summa canister, a half-hour is a standard collection time (~28 ml/min).
4. Perform sample train leak check, per the steps listed in **Section 6** of this SOP.
5. Remove Swagelok® Cap and attach sample train.
6. Open Port Valve.

7. Place an enclosure of $\geq 40\text{L}$ volume over the VMP and assembled sample train as shown in **Figure 2**. The enclosure should have openings for:

- The introduction of tracer gas;
- Pressure relief to the atmosphere and access of a tracer gas monitoring device;
- Tygon tubing to connect to the peristaltic pump for Valve #1 (out) and Valve #2 (in and out).

The enclosure should have sufficient glove access to open or close all valves within. As shown in **Figure 2**, the enclosure must also be sealed to the ground with hydrated bentonite or equivalent.

8. Introduce helium gas into the enclosure at a known rate until the atmosphere within the enclosure has a concentration of approximately 30 to 50% tracer gas.

9. Calculate Purge volume:

- Vapor Port tubing (1/8-in diameter): 2.41 mL/foot (single volume)
- Sample train assembly (1/4-in diameter): 9.65 mL/foot (single volume)

10. Open Valve #1.

11. Purge the three volumes from the vapor monitoring port purge using the 15 mL hand pump. If the pump pulls back or the gauge holds a vacuum, and the purge cannot be completed, the VMP screen may be saturated with water and will not yield a representative sample. If this happens, do not sample the VMP. Similarly, if water is pulled out during the purge, do not sample the VMP.

12. Connect peristaltic pump to the purge tubing to collect a sample in a Tedlar bag. The Tedlar bag should be filled at a rate no faster than 200 ml/min.

13. Close Valve #1.

14. From the soil vapor in the Tedlar bag obtain readings for helium with helium gas detector (if necessary). If helium readings are elevated, analyze the Tedlar bag using a landfill gas detector to obtain a direct methane reading.

15. Open Summa™ canister valve completely and record the time.

16. After approximately 30 minutes, or if the vacuum gauge reading drops below 5 inches Hg before 30 minutes, close the Summa canister valve completely. Record the time. **The vacuum gauge should reach less than 10 inches Hg, but should not be allowed to drop below 2 inches of Hg.**

17. Connect peristaltic pump to tubing connected to Valve #2 and open Valve #2 to collect a sample in a Tedlar bag. The Tedlar bag should be filled at a rate no faster than 200 ml/min.
18. Disassemble the sample train. Replace Swagelok® plug on the vapor monitoring port.
19. From the soil vapor in the Tedlar bag obtain readings for total volatile organics with a photoionization detector (PID), for H₂S, CO, oxygen (O₂), and lower explosive limit (LEL) with a 4-gas meter, and for CO₂, CH₄, LEL, and oxygen (O₂) with a landfill gas meter. Record readings, and for helium with helium gas detector.
20. Perform Summa™ canister vacuum check, per the steps listed in **Section 6** of this SOP.
21. Replace Swagelok® vapor port plug and move to next depth or replace vault cover and clean up at location.
22. Decontaminate any non-designated equipment (e.g., Swagelok® connectors and valves) following procedures listed in **Section 7**.

6. Quality Control

Quality control procedures have been developed to verify equipment integrity, sample quality, and sample repeatability.

In addition to the procedures listed below, the following items are also of concern:

- Care should be taken to keep all sampling equipment, especially the Summa canisters, safe from damage.
- No samples are to be collected in an area where vehicle or other equipment exhaust is being discharged.

Field Duplicates

A field duplicate will be collected for 10% of the samples collected.

Field duplicates are collected by attaching a T-fitting to the end of the tubing prior to the flow controller. A Summa canister with a flow controller is attached to each end of the T-fitting. For sampling, both Summa canister valves are opened and closed simultaneously. Use the procedure described above to collect samples.

Summa Canister Vacuum Check

The Summa canister vacuum check will be performed for 100% of the Summa canisters.

Prior to Sampling

1. Attach the pressure gauge provided by the laboratory to the Summa canister inlet.
2. Open valve completely.
3. Record reading. The canister should show a vacuum of approximately 28 inches of mercury (Hg). If the canister does not show a vacuum or shows a vacuum of less than 22 inches of Hg, then:
 - Label the canister with “Insufficient vacuum – No Sample”;
 - Set canister aside for return to the laboratory; and
 - Contact project manager and lab coordinator if canister failures effect field work.
4. Close valve completely.
5. Remove the pressure gauge.

After Sampling

1. Attach the pressure gauge provided by the laboratory to the Summa canister inlet.
2. Open valve completely.
3. Record reading. There should still be a slight vacuum in the Summa canister. If the canister does not show a significant net loss in vacuum after sampling, evaluate and document the problem. If necessary, contact the project manager immediately to determine the value of using another Summa canister to recollect the sample.
4. Close valve completely.
5. Remove the pressure gauge.

Sample Train Vacuum Leak Check

The sample train leak check will be performed for 100% of the samples collected.

1. Assemble the sampling apparatus as shown in **Figure 1**.
2. Keep the Summa canister and Valve #1 in the “off” or “closed” position. Valve #2 should be in the “open” position.
3. Attach the 15 mL hand pump to sample train attached where indicated.
4. Withdraw air from the sampling apparatus until a vacuum of at least 10 inches Hg is achieved. Observe the induced vacuum for at least five minutes.
5. If the change in vacuum over five minutes is equal to or less than 0.5 inch Hg, the system leak rate is acceptable.

6. If the change in vacuum over five minutes is greater than 0.5 inch Hg, check, tighten or replace the fittings and connections and repeat the leak check.

Tracer Compound Check

Ten percent of the samples will be collected using a tracer compound.

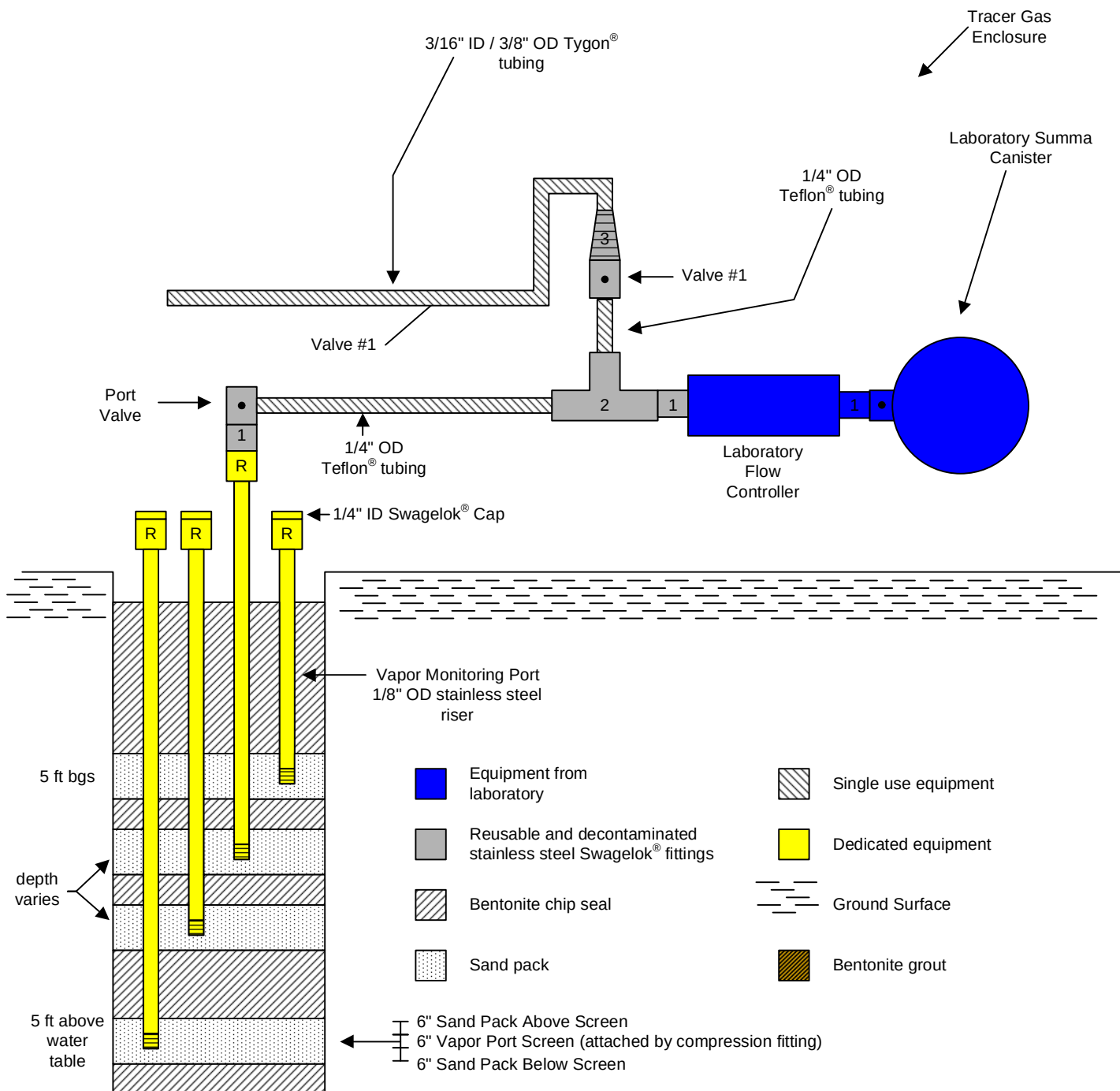
1. Helium tracer gas should be introduced near the VMP to test the integrity of the probe seal and the above ground connections.
2. Collect the soil vapor sample per procedures in **Section 5**.
3. If the concentration of the tracer gas in a sample is $\leq 10\%$ of the concentration of the tracer gas in the enclosure, the sample is acceptable.
4. If the concentration of the tracer gas in the sample is $> 10\%$ of the concentration of the tracer gas in the enclosure, collect a second Tedlar bag without the enclosure. If the concentration is still high, the results may be biased high by methane.

7. Decontamination

- Non-designated stainless steel Swagelok[®] connectors will be thoroughly decontaminated using an Alconox[®] wash followed by a distilled water rinse.
- Multiple sets of stainless steel Swagelok connectors will be available to sample crews to allow for equipment to be cleaned and dried sufficiently before being reused.

8. Shipping

- Sample information shall be recorded on a chain of custody for the laboratory following procedures outlined in SOP No. 26.
- Samples will be shipped to the laboratory following DOT regulations. If there is the possibility that samples may be classified as hazardous, samples must be shipped as such. For procedures, see SOP No. 49 and check with one of the office hazardous shipping personnel.



1 - 1/4" ID to 1/4" ID Swagelok® port connector
 2 - 1/4" ID Swagelok® T-connector
 3 - 1/4" ID Swagelok® barb connector
 • - 1/4" ID Swagelok® Ball Valve
 R - 1/8" ID to 1/4" ID Swagelok® Reducer

SOP 44R
 Soil Vapor Purging and Sampling – Roxana

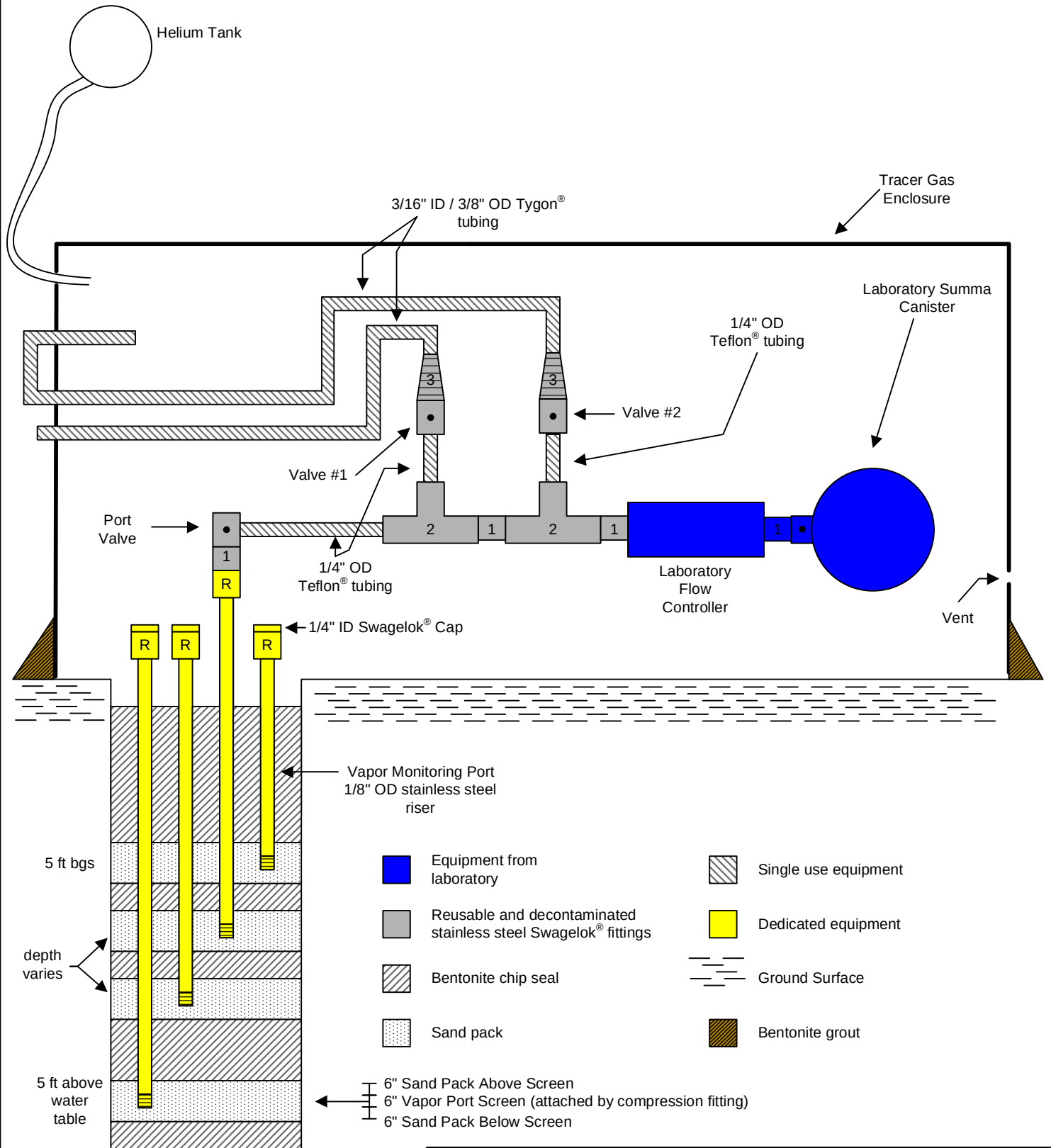
PROJECT NO.
 21562291

URS

DRN. BY: mpm 09/28/10
 DSGN. BY: mpm
 CHKD. BY:

Soil Vapor Sampling Configuration

FIG. NO.
 1



1 - 1/4" ID to 1/4" ID Swagelok® port connector
 2 - 1/4" ID Swagelok® T-connector
 3 - 1/4" ID Swagelok® barb connector
 • - 1/4" ID Swagelok® Ball Valve
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SOP 44R
 Soil Vapor Purging and Sampling – Roxana

PROJECT NO.
 21562291

URS

DRN. BY: mpm 09/28/10
 DSGN. BY: mpm
 CHKD. BY:

Soil Vapor Sampling Configuration

FIG. NO.
 2

1. Objective

This document defines the standard operating procedure (SOP) and necessary equipment for collection of ambient and monitoring port air samples using summa canisters.

All work involving location access must be conducted by a team of at least two personnel. One member of the team will be designated as the field lead. The field lead will be responsible for interaction with site occupants.

SOPs providing additional related guidance are listed below:

- SOP No. 3 – Calibration and Maintenance of Field Instruments
- SOP No. 8 – Field Reporting and Documentation.
- SOP No. 26 – Sample Control and Custody Procedures.
- SOP No. 49 – Vapor Sample Classification Packaging and Shipping

2. Equipment

Personnel implementing this guideline must ensure that the following are in place:

- Field book
- Disposable nitrile gloves
- Ultra-fine permanent marker
- Paper towels or Kimwipes
- Calculator
- Decontamination equipment
- Sampling logs
- Small brush or broom
- 15 mL hand pump with gauge
- Peristaltic pump
- Flame Ionization Detector (FID)
- Photoionization Detector (PID)
- 4-gas meter (e.g., Mini-RAE, QRAE)
- Summa™ canisters with flow controllers (project specific appropriate size, supplied by the laboratory)

- Swagelok[®] Barb Connector – ¼” ID
- Swagelok[®] Ferrules – ¼” ID
- Swagelok[®] Nuts – ¼” ID
- Teflon[®] tubing (food- or laboratory-grade)
- Vacuum pressure gauge – (-30 to 0 inches Hg)
- Watch or timer
- Standard field tools (e.g., ratchet set, safety cutting tools, pry bar, etc.)
- Shipping supplies (e.g., UN boxes, shipping labels, hazard labels, packing tape)

3. *Ambient Air Sampling*

1. Assess air quality, using a four gas meter, FID and PID, in the room where work is to be performed. Record background readings. If necessary locate any sources for potential elevated readings.
 - o If VOC or LEL readings are above the levels stated in the site Health and Safety Plan (HASP) work will cease until ambient air conditions have resumed safe levels.
 - o If oxygen levels drop below 19.6%, work will cease until ambient oxygen levels have resumed to safe levels for at least 15 minutes.
 - o Ambient air will be continuously monitored by one team member and recorded no less frequently than 15 minutes.
2. Perform Summa[™] canister vacuum check, per the steps listed in **Section 5** of this SOP.
3. Assemble a Summa[™] canister with the appropriate flow controller. Follow vacuum leak check procedures listed in **Section 5** of this SOP.
4. Choose sampling location related to the purpose of the sampling event. Ensure that an adequate location for the sample media and equipment is available so as to reduce potential harm to the sample or personal injury to building occupants or field personnel.
5. Record Sample identification, canister number and initial vacuum on the sample data sheet and the Summa[™] canister sample tag.
6. Remove the brass cap from the inlet of the flow controller.
7. Place the Summa[™] canister in the appropriate sample location and open the canister valve one turn and record the sample start time on the sampling data sheet and the Summa[™] canister sample tag.

8. Record a detailed description of the sample location on the data sheet.
9. Allow Summa™ canister to sample for chosen sample duration. The final vacuum reading should be between 5 and 10 inches of mercury. Do not allow the canister to equilibrate with the atmosphere. When the appropriate duration has elapsed, shut the valve.
10. Remove flow controller and replace brass cap on the Summa™ Canister.
11. Perform Summa™ canister vacuum check, per the steps listed in **Section 5** of this SOP.
12. Record the stop time and final vacuum reading on the sampling data sheet and on the sampling data sheet and the Summa™ canister sample tag.
13. Record sample information of the Chain of Custody and prepare sample for transportation to the laboratory.

4. Monitoring Port Sampling

1. Assess ambient air quality, using a four gas meter and a PID and/or FID, in the area where work is to be performed. Record background readings. If necessary locate any sources for potential elevated readings.
 - o If VOC or LEL readings are above the levels stated in the site Health and Safety Plan (HASP) work will cease until ambient air conditions have resumed safe levels.
 - o If oxygen levels drop below 19.6%, work will cease until ambient oxygen levels have resumed safe levels for at least 15 minutes.
 - o Ambient air will be continuously monitored by one team member and recorded no less frequently than 15 minutes.
2. Perform Summa™ canister vacuum check, per the steps listed in **Section 5** of this SOP.
3. Assemble a Summa™ canister with the appropriate flow controller. Follow vacuum leak check procedures listed in **Section 5** of this SOP.
4. Choose sampling location related to the purpose of the sampling event. Ensure that an adequate location for the sample media and equipment is available so as to reduce potential harm to the sample or personal injury to building occupants or field personnel.
5. Record Sample identification, canister number and initial vacuum on the sample data sheet and the Summa™ canister sample tag.
6. Remove the brass cap from the inlet of the flow controller.

7. Attach flow controller to the monitoring port via Teflon tubing. Each end of the tubing should be attached using Swagelok compression fittings. New tubing should be used for each sample collected.
8. Place the Summa™ canister in the appropriate sample location and open the canister valve one turn and record the sample start time on the sampling data sheet and the Summa™ canister sample tag.
9. Record a detailed description of the sample location on the data sheet.
10. Allow Summa™ canister to sample for chosen sample duration. The final vacuum reading should be between 5 and 10 inches of mercury. Do not allow the canister to equilibrate with the atmosphere. When the appropriate duration has elapsed, shut the valve.
11. Remove flow controller and replace brass cap on the Summa™ Canister.
12. Perform Summa™ canister vacuum check, per the steps listed in **Section 5** of this SOP.
13. Record the stop time and final vacuum reading on the sampling data sheet and on the sampling data sheet and the Summa™ canister sample tag.
14. Record sample information of the Chain of Custody and prepare sample for transportation to the laboratory.
15. Discard any Teflon tubing after single use to prevent cross contamination.

5. *Quality Control*

Quality control procedures have been developed to verify equipment integrity, sample quality, and sample repeatability.

In addition to the procedures listed below, the following items are also of concern:

- Care should be taken to keep all sampling equipment, especially the Summa™ canisters, safe from damage.

Summa™ Canister Vacuum Check

The Summa™ canister vacuum check will be performed for 100% of the Summa™ canisters.

Prior to Sampling

1. Attach the pressure gauge provided by the laboratory to the Summa™ canister inlet.
2. Open valve completely.

3. Record reading. The canister should show a vacuum of approximately 28 inches of mercury (Hg). If the canister does not show a vacuum or shows a vacuum of less than 22 inches of Hg, set the canister aside for return to the laboratory without a sample.
4. Close valve completely.
5. Remove the pressure gauge.

After Sampling

1. Attach the pressure gauge provided by the laboratory to the Summa™ canister inlet.
2. Open valve completely.
3. Record reading. There should still be a slight vacuum in the Summa™ canister. If the canister does not show a significant net loss in vacuum after sampling, evaluate and document the problem. If necessary, contact the project manager immediately to determine the value of using another Summa™ canister to recollect the sample.
4. Close valve completely.
5. Remove the pressure gauge.

Sample Train Vacuum Leak Check

The sample train leak check will be performed for 100% of the samples collected.

1. Assemble the sampling apparatus
2. Attach a barb fitting to the appropriate connection.
3. Attach the 15 mL hand pump to sample train at the barb fitting.
4. Withdraw air from the sampling apparatus until a vacuum of at least 15 inches Hg is achieved. Observe the induced vacuum for at least one minute.
5. If the change in vacuum is equal to or less than 0.5 inch Hg, the system leak rate is acceptable.
6. If the change in vacuum is greater than 0.5 inch Hg, check, tighten or replace the fittings and connections and repeat the leak check.

6. *Shipping*

- Sample information shall be recorded on a chain of custody for the laboratory following procedures outlined in SOP No. 26.

- Samples will be shipped to the laboratory following DOT regulations. If there is the possibility that samples may be classified as hazardous, samples must be shipped as such. For procedures, see SOP No. 49 and check with one of the office hazardous shipping personnel.

1. Purpose and Scope

This document defines the standard protocols for sample handling, documentation, and tracking. This SOP is intended to be used together with several other SOPs. Applicable SOPs are listed below:

- SOP No. 26 - Sample Control and Custody Procedures
- SOP No. 46 – Indoor Air Sampling with Summa Canisters

2. Procedures For Sample Identification, Handling, And Documentation

2.1 Sample Identification

Samples collected during site activities shall have discrete sample identification numbers. These numbers are necessary to identify and track each of the many samples collected for analysis during the life of project. In addition, the sample identification numbers can be used in a database to identify and retrieve the analytical results received from the laboratory.

Each sample is identified by a unique code which indicates the sample location type, sample location number, sample depth, and date collected. The sample locations will be numbered sequentially.

An example of the sample identification number codes for a vapor monitoring port collected for field analysis will be: VMP-1-5-090110.

Where VMP indicates a Vapor Monitoring Port sample, 1 indicates the site location, 5 indicates the bottom of the sample depth interval, 090110 indicates the date the sample was collected.

The sampling locations and sample sequence identifiers will be established prior to field activities for each sample to be collected. On-site personnel will obtain assistance from the Project Manager in defining any special sampling requirements. Other sample identification may be specified by the project manager on an individual project basis.

2.2 Sample Labeling

Sample labels will be filled out as completely as possible by a designated member of the sampling team prior to beginning field sampling activities each day. The date, time, sampler's signature, and the last field of the sample identification number should not be completed until the time of sample collection. All sample labels shall be filled out using waterproof ink. At a minimum, each label shall contain the following information:

- Sampler's company affiliation
- Site location

- Sample identification code
- Date and time of sample collection
- Analyses required
- Canister ID
- Initial and final vacuum readings
- Sampler's signature or initials.

2.3 Sample Handling

This section discusses proper sample containers, preservatives, and handling and shipping procedures.

2.3.1 *Sample Handling and Shipping*

After sample collection, each container will be labeled as described above, and then stored in a fashion which will protect the stems of the Summa™ canisters. A determination will be made prior to sample collection if the samples will be handled as hazardous materials for shipping and transportation purposes. If the samples are to be handled as hazardous material, a designated hazardous material shipper will be required to pack and ship samples.

The sample containers will be placed right side up in a UN approved shipping box. No more than the specified number of samples will be placed in an individual box for shipment (check regulations prior to packing). The box will be taped with a custody seal for delivery to the laboratory. Samples will be hand delivered or shipped by overnight express carrier for delivery to the analytical laboratory. All samples must be shipped for laboratory receipt and analyses within specific holding times. This may require daily shipment of samples with short holding times. A chain-of-custody (COC) form will accompany each box.

2.4 Sample Documentation and Tracking

This section describes documentation required in the field notes and on the sample Chain-of-Custody forms.

2.4.1 *Field Notes*

Documentation of observations and data acquired in the field will provide information on the acquisition of samples and also provide a permanent record of field activities. The observations and data will be recorded using pens with permanent waterproof ink in a permanently bound weatherproof field log book containing consecutively numbered pages.

The information in the field book will include the following as a minimum. Additional information is included in the specific SOPs regarding the field books.

- Project name
- Location of sample
- Sampler's printed name and signature
- Date and time of sample collection
- Sample identification code including QC and QA identification
- Sample depth (if applicable)
- Number and volume of samples
- Sampling methods or reference to the appropriate SOP
- Sample handling
- Analytes of interest
- Field observations
- Results of any field measurements
- Personnel present
- Level of PPE used during sampling.

Changes or deletions in the field book should be lined out with a single strike mark, initialed, and remain legible. Sufficient information should be recorded to allow the sampling event to be reconstructed without relying on the sampler's memory.

Each page in the field books will be signed by the person making the entry at the end of the day, as well as on the bottom of each page. Anyone making entries in another person's field book will sign and date those entries.

2.4.2 Sample Chain-of-Custody

During field sampling activities, traceability of the sample must be maintained from the time the samples are collected until laboratory data are issued. Initial information concerning collection of the samples will be recorded in the field log book as described above. Information on the custody, transfer, handling, and shipping of samples will be recorded on a COC form. The COC is a three-part carbonless form.

The sampler will be responsible for initiating and filling out the COC form. The COC will be signed by the sampler when the sampler relinquishes the samples to anyone else. One COC form will be completed for each set of samples collected daily. The COC will contain the following information:

- Sampler's signature and company affiliation
- Project number
- Date and time of collection
- Sample identification number
- Canister ID
- Initial and final vacuum readings
- Analyses requested
- Number of containers
- Signature of persons relinquishing custody, dates, and times
- Signature of persons accepting custody, dates, and times
- Method of shipment
- Shipping air bill number (if appropriate).

The person responsible for delivery of the samples to the laboratory will sign the COC form, retain the last copy of the three-part COC form, document the method of shipment, and send the original and the second copy of the COC form with the samples. Upon receipt at the laboratory, the person receiving the samples will sign the COC form and return the second copy to the Project Manager. Copies of the COC forms documenting custody changes and all custody documentation will be received and kept in the central files. The original COC forms will remain with the samples until final disposition of the samples by the laboratory.

TABLE C-1
SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar												Shroud		Tedlar
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Port ID	Date	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
VMP-1-5	11/02/09		98.2	4	0	35	11.1			OVR		9500 ppm	2.20%	63%	62%	N/A
	08/25/10	0.0 ppm	0.0	2	0	0	14.2	0.2	4	1.2	19.6	0 ppm	2.1 %	51.9 %	67.0 %	N/A
VMP-1-8.5	11/02/09		87.5	4	0	25	1.2			OVR		0 ppm	8300 ppm	68%	64%	N/A
	08/25/10	3561 ppm	2.6	0	0	2	0.0	0.3	6	7.0	9.0	3.3 %	4.3 %	50.1 %	50.2 %	N/A
VMP-1-23.5	11/02/09		83.2	5	0	100	8.2			OVR		0 ppm	8300 ppm	68%	64%	N/A
	08/30/10	1.99 ×10 ⁶ ppm	0.0	190	7	OVR	0.0	0.0	>>>	7.8	0.2	2.3 %	3.1 %	50.8 %	47.3 %	N/A
VMP-1-38.5	11/02/09		63.0	4	0	31	1.3			OVR		8575 ppm	8900 ppm	58%	48%	N/A
	08/30/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-2-5	11/02/09		770	1	0	0	10.0			OVR		0 ppm	3.20%	67%	58%	N/A
	08/31/10	42780 ppm	98.9	24	1	35	0.0	63.9	>>>	11.4	0.2	0 ppm	4525 ppm	50.3 %	48.8 %	N/A
VMP-2-8.5	11/03/09		12.0	0	0	100	16.1			2.43%		75 ppm	2.90%	69%	40%	N/A
	08/31/10	1.44 ×10 ⁶ ppm	48.8	48	2	OVR	0.0	99.9	>>>	0.1	0.0	6675 ppm	13325 ppm	59.3 %	46.7 %	N/A
VMP-2-22	11/03/09		118	0	0	21	3.4			OVR		0 ppm	2425 ppm	60%	49%	N/A
	08/31/10	1.16 ×10 ⁶ ppm	62	0	2	OVR	0.0	99.9	>>>	0.0	0.0	2.5 %	2.5 %	59.7 %	53.9 %	N/A
VMP-2-42	11/03/09		70.8	193	0	70	0.8			OVR		2.10%	9550 ppm	80%	58%	N/A
	08/31/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-3-5	11/03/09		7.6	3	0	5	6.0			OVR		0 ppm	2700 ppm	68%	50%	N/A
	09/09/10	2.28 ×10 ⁶ ppm	137.0	104	4	OVR	0.0	>>>	>>>	12.3	0.0	2.8 %	5.6 %	52.6 %	51.7 %	10.5 %
VMP-3-10	06/21/10		109.0	237	0	OVR	0.9			OVR		0 ppm	1900 ppm	48.1 %	18.5 %	N/A
	09/10/10	OVR	10.9	511	15	OVR	0.0	>>>	>>>	9.7	0.0	10.3 %	9.2 %	59.1 %	58.0 %	10.1 %
	09/20/10	OVR	142	0	10	OVR	0.3	>>>	>>>	9.0	1.3	6.7 %	2.5 %	51.1 %	44.3 %	8.1 %
VMP-3-22	11/04/09		101	142	0	100	0.9			OVR		3300 ppm	4.20%	58%	51%	N/A
	09/20/10	OVR	51.2	0	39	OVR	0.7	>>>	>>>	8.8	6.7	4.6 %	4.6 %	51.2 %	51.0 %	5.1 %
VMP-3-31.5	11/04/09		631	3	0	100	0.9			OVR		10%	10%	62%	44%	11%
	09/09/10	OVR	14.9	1033	9	OVR	0.0	>>>	>>>	4.6	0.0	18.2 %	17.0 %	57.8 %	37.6 %	17.7 %
VMP-3-39	11/04/09		114	195	0	0	0.9			4.72%		11%	11%	59%	40%	10%
	09/09/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-4-5	11/05/09		24.0	0	0	0	6.0			7600 ppm		17225 ppm	30%	59%	39%	32%
	08/25/10	0.0 ppm	26.7	305	7	OVR	0.8	99.8	>>>	0.00	0.2	0 ppm	2.3 %	50.1 %	46.6 %	N/A
VMP-4-12	11/05/09		150	12	0	14	1.4			OVR		1250 ppm	22000 ppm	60%	41%	N/A
	08/25/10	0.0 ppm	77.8	452	25	OVR	0.0	99.8	>>>	13.5	0.2	3.4 %	4.6 %	57.4 %	54.0 %	N/A
VMP-4-23.5	11/05/09		340	134	6	86	6.0			2.20%		9%	10%	62%	39%	10.60%
	08/31/10	OVR	2.3	1006	70	OVR	0.0	>>>	0	5.7	0.7	12.7 %	14.3 %	54.5 %	37.8 %	12.7%
VMP-4-39	11/05/09		327	1154	2	74	0.9			4.95%		9%	4300 ppm	59%	34%	10%
	08/31/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE C-1
SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar												Shroud		Tedlar
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Port ID	Date	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
VMP-5-5	11/05/09		197	5	0	35	0.0			4.50%		0 ppm	45000 ppm	37%	28%	N/A
	09/09/10	79110 ppm	331	426	11	OVR	0.0	>>>	>>>	12.4	1.6	7675 ppm	8500 ppm	63.6 %	61.5 %	N/A
VMP-5-12.5	11/06/09		41.5	153	0	100	2.0			OVR		1425 ppm	3050 ppm	45%	39%	N/A
	09/09/10	1.59 ×10 ⁶ ppm	276.0	244	14	OVR	0.0	>>>	>>>	14.3	0.0	9300 ppm	6375 ppm	54.6 %	53.1 %	N/A
VMP-5-31	11/06/09		31.5	947	7	100	1.8			OVR		1.9%	2.1%	46%	35%	N/A
	09/09/10	OVR	0.0	875	21	OVR	0.0	>>>	>>>	9.4	0.0	9.2 %	10.2	48.0 %	46.2 %	7.1 %
VMP-5-40	11/06/09		28.6	913	0	100	0.4			OVR		4.1%	2.7%	51%	38%	N/A
	09/09/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-6-5	11/06/09		161	27	3	85	0.9			OVR		0 ppm	0 ppm	55%	39%	N/A
	09/08/10	35760 ppm	327	76	3	27	0.0	12.8	>>>	15.3	0.0	0 ppm	1125 ppm	59.3 %	56.4 %	N/A
VMP-6-10	11/06/09		183	17	3	100	0.4			OVR		3523 ppm	775 ppm	54%	29%	N/A
	09/08/10	79370 ppm	356	138	6	50	0.0	38.3	>>>	14.8	0.0	5400 ppm	7250 ppm	51.6 %	37.9 %	N/A
VMP-6-31.5	11/09/09		445.0	86	3	100	0.3			OVR		0 ppm	0 ppm	58%	47%	N/A
	09/08/10	3.21 ×10 ⁶ ppm	380.0	711	41	OVR	0.0	>>>	>>>	12.9	0.0	2.7 %	2.6 %	56.6 %	46.9 %	2.3 %
VMP-6-39	11/09/09		55.0	8	5	100	0.2			OVR		16050 ppm	15475	60%	48%	N/A
	09/08/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-7-5	11/09/09		0.6	4	0	Neg	12.3			OVR		3.4%	2.5%	64%	50%	N/A
	08/26/10	28.7 ppm	0.0	0	1	0	0.8	0.0	0	4.5	13.4	1.7 %	1.5 %	56.6 %	56.3 %	N/A
VMP-7-13.5	11/09/09		53.0	0	0	0	5.2			OVR		0 ppm	4500 ppm	60%	46%	N/A
	08/26/10	5130 ppm	62.8	2	2	16	0.0	1.1	22	16.7	0.4	0 ppm	0 ppm	50.8 %	56.2 %	N/A
VMP-7-29.5	11/09/09		89.0	132	4	13	4.5			OVR		5375 ppm	3650 ppm	62%	49%	N/A
	08/31/10	73090 ppm	234.0	187	10	0	0.0	57.1	>>>	15.0	0.3	9200 ppm	7925 ppm	50.4 %	48.3 %	N/A
VMP-7-38	11/09/09		88.0	4	3	75	1.8			OVR		0 ppm	5975 ppm	52%	45%	N/A
	08/31/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-8-5	11/10/09		0.0	1	0	0	15.5			OVR		1500 ppm	0 ppm	63%	45%	N/A
	08/30/10	55.0	0.4	0	0	0	6.4	0.0	0.0	7.3	13.4	0.0 ppm	1325 ppm	52.0 %	58.6 %	N/A
VMP-8-9.5	11/10/09		0.0	0	0	0	11.2			OVR		0 ppm	0 ppm	63%	45%	N/A
	08/30/10	66.2	0.2	0	0	0	0.0	0.0	0.0	9.2	10.1	0.0 ppm	0 ppm	56.2 %	48.9 %	N/A
VMP-8-23.5	11/10/09		0.0	2	0	0	11.2			OVR		0 ppm	0 ppm	60%	46%	N/A
	08/30/10	34.2	0.0	1	0	3	0.0	0.0	0.0	9.3	9.9	0.0 ppm	0 ppm	55.2 %	60.0 %	N/A
VMP-8-35.5	11/10/09		NA	NA	NA	NA	NA			NA		NA	NA	53%	NA	NA
	08/30/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE C-1
SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar												Shroud		Tedlar
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Port ID	Date	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
VMP-9-5	11/11/09		0.0	2	0	0	15.0			3.45%		10.4%	4.6%	55%	49%	4.5%
	08/26/10	36.7 ppm	0.0	2	0	3	0.4	0.4	8	11.6	4.7	0 ppm	0 ppm	50.2 %	45.6 %	N/A
VMP-9-11.5	11/11/09		0.0	0	6	0	5.2			OVR		16975 ppm	8500 ppm	61%	39%	N/A
	08/26/10	19620 ppm	36.7	8	0	42	0.0	3.2	64	13.7	0.5	0 ppm	2800 ppm	54.2 %	34.7 %	N/A
VMP-9-25.5	11/10/09		145	1	0	60	2.1			OVR		2375 ppm	50 ppm	56%	41%	N/A
	08/26/10	46560 ppm	153	32	12	Neg	0.0	19.4	388	13.8	0.0	4275 ppm	9800 ppm	50.2 %	47.6 %	N/A
VMP-9-38.5	11/10/09		138	11	0	33	3.1			OVR		0 ppm	2125 ppm	60%	47%	N/A
	08/26/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	62.5 %	NS	NS
VMP-10-5	11/11/09		0.0	0	0	0	13.5			OVR		0 ppm	0 ppm	65%	56%	N/A
	09/07/10	-7.7 ppm	0.1	0	0	0	0.0	0.0	0	6.4	14.0	0 ppm	0 ppm	60.2 %	35.8 %	N/A
VMP-10-10	11/11/09		0.0	0	0	0	11.7			OVR		0 ppm	0 ppm	58%	44%	N/A
	09/07/10	-8.7 ppm	0.0	0	0	0	0.0	0.0	0	9.0	11.9	0 ppm	0 ppm	53.4 %	25.5 %	N/A
VMP-10-20	11/11/09		0.0	2	0	0	20.9			470		0 ppm	2475 ppm	60%	38%	N/A
	09/07/10	-10.8 ppm	0.0	0	0	0	0.0	0.0	0	12.3	9.4	0 ppm	0 ppm	51.8 %	32.9 %	N/A
VMP-10-30	11/13/09		0.0	0	0	0	6.7			OVR		0 ppm	0 ppm	60%	50%	N/A
	09/07/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-11-5	11/17/09		5.0	6	0	24	7.0			OVR		0 ppm	0 ppm	50%	31%	N/A
	09/07/10	-2.9	0.1	2	0	0	0.0	0.0	0	9.9	10.3	0 ppm	0 ppm	57.9 %	44.3 %	N/A
VMP-11-8	11/17/09		4.0	0	0	2	7.3			OVR		0 ppm	0 ppm	50%	37%	N/A
	09/08/10	10.5	0.0	0	0	0	0.0	0.0	0	9.5	11.0	0 ppm	0 ppm	52.3 %	37.6 %	N/A
VMP-11-29	11/18/09		OVR	3	0	16	4.5			OVR		0 ppm	0 ppm	53%	45%	N/A
	09/08/10	1400	97.3	1	0	5	0.0	0.0	1	14.7	0.0	0 ppm	0 ppm	63.8 %	40.0 %	N/A
VMP-11-38	11/18/09		OVR	2	0	28	4.6			OVR		0 ppm	0 ppm	50%	40%	N/A
	09/08/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-12-5	11/13/09		857	120	2	100	1.8			OVR		6.0%	5.8%	56%	42%	7.0%
	09/03/10	OVR	22.5	145	23	Off	0.0	>>>	>>>	14.5	0.7	10.4 %	11.1 %	48.7 %	45.7 %	10.1 %
VMP-12-11.5	11/13/09		97.0	68	2	0	4.2			OVR		0 ppm	5.5%	55%	45%	0 ppm
	09/03/10	OVR	44.1	293	15	Off	0.0	>>>	>>>	15.2	0.6	9.6 %	10.1 %	54.1 %	33.4 %	11.4 %
VMP-12-25	11/13/09		332	142	2	92	2.9			2.33%		6.5%	6.4%	47%	36%	6.9%
	09/03/10	OVR	441	379	7	Off	0.0	>>>	>>>	15.3	0.5	11.6 %	10.6 %	52.6 %	34.9 %	10.8 %
VMP-12-39	11/13/09		1805	93	1	7	4.3			2700 ppm		6.5%	7.8%	56%	44%	7.2%
	09/03/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE C-1
SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar												Shroud		Tedlar
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Port ID	Date	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
VMP-13-5	11/16/09		957	4	0	26	1.6			OVR		0 ppm	0 ppm	39%	22%	N/A
	09/13/10	35.3	0	0	0	0	0.0	0.0	0.0	6.8	9.0	0 ppm	0 ppm	56.7 %	46.7 %	N/A
VMP-13-10.5	11/17/09		12.0	2	0	0	20.9			1030 ppm		0 ppm	400 ppm	40%	29%	N/A
	09/13/10	1460	1.0	2	2	5	0.0	0.2	1.0	8.6	0.7	0 ppm	0 ppm	53.2%	30.3 %	N/A
VMP-13-21.5	11/17/09		OVR	27	0	38	4.2			OVR		0 ppm	32%	43%	0 ppm	N/A
	09/13/10	35600	1869.0	7	0	30	0.0	2.4	49	12.2	0.0	525 ppm	0 ppm	56.7 %	27.9 %	N/A
VMP-13-29.5	11/17/09		OVR	8	0	47	4.8			OVR		0 ppm	0 ppm	40%	32%	N/A
	09/13/10	NS	NS	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-14-5	11/16/09		NS	NS	NS	NS	NS			NS		0 ppm	--	54%	42%	N/A
	09/10/10	2.32 ×10 ⁶ ppm	1.6	0	0	OVR	0.0	17.9 %	>>>	20.1	0.0	3.8 %	4.0 %	53.6 %	51.4 %	3.2 %
VMP-14-11.5	11/16/09		43.9	25	4	17	6.1			OVR		2.5%	2.3%	55%	22%	16500 ppm
	09/10/10	7.41 ×10 ⁶ ppm	10.4	42	75	OVR	0.0	>>>	>>>	16.5	0.0	7.0 %	7.3 %	52.3 %	47.2 %	6.8 %
VMP-14-20	11/16/09		104	100	0	0	4.2			OVR		2.4%	19475 ppm	32%	27%	19600 ppm
	09/10/10	OVR	56.8	186	0	OVR	0.0	>>>	>>>	17.2	0.0	7.8 %	7.7 %	63.8 %	50.5 %	6.6 %
VMP-14-29	11/16/09		286	37	0	100	3.7			OVR		16000 ppm	16975 ppm	36%	29%	N/A
	09/10/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
VMP-15-5	11/18/09		5.6	0	0	3	7.5			OVR		0 ppm	123 ppm	46%	32%	N/A
	09/14/10	0.0	0.0	0	0	5	0.0	0.0	0.0	17.0	0.3	0 ppm	0 ppm	64.4 %	49.9 %	N/A
VMP-15-21.5	11/18/09		47.0	5	6	100	3.6			OVR		4%	4.2%	66%	60%	4.70%
	09/14/10	1.96 ×10 ⁶ ppm	9.5	5	92	OVR	0.0	30.8	>>>	19.1	0.0	3.9 %	3.6 %	50.1 %	28.1 %	3.4 %
VMP-15-25.5	11/18/09		49.9	6	1	100	5.6			OVR		5.1%	4.8%	60%	51%	5.70%
	09/14/10	11780 ppm	29.9	1	0	15	0.0	1.6	32	7.7	11.1	6.3 %	8.1 %	50.3 %	30.9 %	4.1 %
VMP-15-29	11/19/09		116	26	3.2	100	1.0			OVR		4.2%	5.2%	56%	45%	5.90%
	09/14/10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10.1 %	NS	56.1 %	NS	NS
VMP-16-5	11/19/09		5.6	1	0	0	15.2			1350 ppm		33%	23%	52%	34%	5%
	09/02/10	OVR	6.2	167	9	Off	0.0	>>>	>>>	19.4	0.6	15.1 %	12.1 %	61.2 %	23.1 %	14.0 %
VMP-16-13.5	11/19/09		74.0	0	0	48	14.6			1.39%		17%	16%	52%	56%	16%
	09/02/10	OVR	32.6	170	10	Off	0.0	>>>	>>>	19.4	0.1	13.6 %	13.6 %	51.2 %	31.2 %	16.2 %
VMP-16-19	11/19/09		36.0	17	0	100	11.6			1.33%		18%	9%	55%	53%	13%
	09/02/10	OVR	0.0	162	12	Off	0.0	>>>	>>>	18.5	0.0	11.4 %	16.8 %	51.9 %	20.7%	15.6 %
VMP-16-31	11/19/09		38.0	18	0	100	14.5			OVR		10%	6%	57%	41%	9.5%
	09/03/10	131 ppm	1.3	2	0	36	2.4	0.0	0.0	0.3	15.5	15.1 %	14.8 %	50.2 %	41.2 %	14.6 %

TABLE C-1
SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar												Shroud		Tedlar
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Port ID	Date	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
VMP-17-5	06/21/10		0.0	4	0	0	11.9			OVR		0 ppm	0 ppm	48.8 %	36.1 %	N/A
	09/01/10	-16.4 ppm	0.0	2	0	0	0.0	0.6	12	8.1	11	0 ppm	0 ppm	64.5 %	55.2 %	N/A
VMP-18-8.5	06/18/10		0.3	4	0	6	12.6			OVR		0 ppm	75 ppm	47.8 %	34.8 %	N/A
	09/07/10	-8.1	0.0	0	0	0	0.0	0.0	0.0	11.2	12.4	0 ppm	550 ppm	63.7 %	63.7 %	N/A
VMP-19-5	06/18/10		0.3	10	0	0	12.6			OVR		0 ppm	0 ppm	46.8 %	11.8 %	N/A
	09/01/10	22.8 ppm	1.1	2	0	0	0.0	0.7	12	10.7	8.5	0 ppm	1.1 %	52.0 %	58.6 %	N/A

Notes:

1. November 2009 Sampling and the June 2010 Supplemental utilized a MultiRAE IR for CO2 readings. Any CO2 over 5% resulted in a "OVR" reading. No direct CH4 or secondary LEL and O2 readings were collected.
2. Flame ionization detection (FID) was not used during the November 2009 Sampling or the June 2010 Supplemental
3. OVR is used to indicate a reading over range for the FID or MultiRAE.
4. The Landtec landfill gas analyzer displays ">>>" for any results calculated higher than 99.9% for an individual reading.
5. N/A is used to indicate that a reading was not collected because it was unnecessary (i.e., a direct port for helium if the helium leak check was successful)
6. NS is used to indicate that a reading was not collected because the port could not be sampled.
7. FID readings were taken with a TVA-1000. Due to oxygen concentrations less than 16% a dilution tip was used when analyzing samples. The dilution tip introduced ambient air in a 10:1 ratio with the sample, which required the sample readings to be multiplied by 10 to get the actual reading. The FID readings in this spreadsheet illustrate the actual FID values that were represented in each sample.

SOIL VAPOR SAMPLING - CANISTER SAMPLING DATA

Date	Port ID	Required Purge (mL)	15 mL Hand Pumps	Number of Hand Pumps Achieved	Canister ID	Flow Controller ID	Vacuum Leak Check OK (Y/N)	Helium Leak Check OK (Y/N)	Initial Vacuum	Time Start	Final Vacuum	Time Finish	
8/25/10	VMP-1-5	83.18	6	6	97	FC00899	Y	Y	29 ³⁰	0945	7	1022	y
8/30/10	VMP-1-8.5	108.48	8	8	1732	FC00732	Y	Y	30	1058	6.5	1135	b
8/30/10	VMP-1-23.5	216.93	15	15	2492	FC00744	Y	Y	30	1452	8	1523	g
8/30/10	VMP-1-38.5	325.38	22	Not achieved: Held at 15" Hg vacuum									r
8/31/10	VMP-2-5	83.18	6	6	2112	FC00254	Y	Y	28	1037	7	1115	y
8/31/10	VMP-2-8.5	108.48	8	8	2173	FC00255	Y	Y	30	1155	8	1235	b
8/31/10	VMP-2-22	206.09	14	14	2175	FC00258	Y	Y	30	1313	8.5	1351	g
8/31/10	VMP-2-42	350.69	24	Not achieved: Held at 18" Hg vacuum									r
9/9/10	VMP-3-5	83.18	6	6	1154	FC00302	Y	Y	30 in Hg	1324	2.5" Hg	1344	y
9/9/10	VMP-3-10	110.33	8	8									
9/10/10	VMP-3-22	206.09	14	14	3730	FC00246	Y	Y	30 in Hg	1119	6 in Hg	1152	b
9/9/10	VMP-3-31.5	274.77	19	19	5815	FC00129	Y	Y	30 in Hg	1414	3.0 in Hg	1452	g
9/9/10	VMP-3-39	329.00	22	Not achieved: Held at 22" Hg vacuum									r
8/22/10	VMP-4-5	83.18	6	6	3756	FC00332	Y	Y	30 in Hg	1356	9	1425	y
8/25/10	VMP-4-12	133.79	9	9	3903	4082	Y	Y	30 in Hg	1504	6	1542	b
8/31/10	VMP-4-23.5	216.93	15	15	2185	FC00614	Y	Y	30 in Hg	1455	7.5 in Hg	1522	g
8/31/10	VMP-4-39	329.00	22	Not achieved: Held at 16" Hg vacuum									r

* VMP-3-22 is labeled incorrectly. The correct label is VMP-3-10-D4P. All other information for this VMP is correct. The actual ~~purge~~ is 110.33 ml and the number of hand pumps is 8. 14 HAND pumps were actually conducted in the field. VMP-3-10 and VMP-3-22 can be found on page 5 of 5

SOIL VAPOR SAMPLING - CANISTER SAMPLING DATA

Date	Port ID	Required Purge (mL)	15 mL Hand Pumps	Number of Hand Pumps Achieved	Canister ID	Flow Controller ID	Vacuum Leak Check OK (Y/N)	Helium Leak Check OK (Y/N)	Initial Vacuum	Time Start	Final Vacuum	Time Finish	
9/9/10	VMP-5-5	83.18	6	6	2692	6541	Y	Y	29 inHg	0927	8.5 inHg	0953	y
9/9/10	VMP-5-12.5	137.40	10	10	1938	6491	Y	Y	30 inHg	1035	8 inHg	1106	b
9/9/10	VMP-5-31	271.16	19	19	744	40823	Y	Y	29.5 inHg	1141	4 inHg	1211	g
9/9/10	VMP-5-40	336.23	23	Not achieved: Held at 15" Hg vacuum									r
9/8/10	VMP-6-5	83.18	6	6	3115	FC00491	Y	Y	30 inHg	1250	7 inHg	1322	y
9/8/10	VMP-6-10	119.33	8	8	3766	FC00795	Y	Y	30 inHg	1400	4.5 inHg	1436	b
9/8/10	VMP-6-31.5	274.77	19	19	3822	FC00992	Y	Y	30 inHg	1511	6 inHg	1542	g
9/8/10	VMP-6-39	329.00	22	Not achieved: Held 20" Hg vacuum									r
8/26/10	VMP-7-5	83.18	6	6	1356	6718	Y	Y	29 inHg	1407	8	0913	y
8/26/10	VMP-7-13.5	144.63	10	10	134	6677	Y	Y	30 inHg	1014	10	1044	b
8/31/10	VMP-7-29.5	260.31	18	18	3105	6352	Y	Y	29 inHg	1615	5.5	1639	g
8/31/10	VMP-7-38	321.77	22	Not achieved: Held 18" Hg vacuum									r
8/26/10	VMP-8-5	83.18	6	6	3510	6496	Y	Y	30 inHg	0957	8	1034	y
8/30/10	VMP-8-9.5	115.71	8	8	3755	6511	Y	Y	29 inHg	1110	6 inHg	1140	b
8/30/10	VMP-8-23.5	216.93	15	15	3501	FC00079	Y	Y	30 inHg	1225	8 inHg	1308	g
8/30/10	VMP-8-35.5	303.69	21	Not achieved: Held 20" Hg vacuum									r

SOIL VAPOR SAMPLING - CANISTER SAMPLING DATA

Date	Port ID	Required Purge (mL)	15 mL Hand Pumps	Number of Hand Pumps Achieved	Canister ID	Flow Controller ID	Vacuum Leak Check OK (Y/N)	Helium Leak Check OK (Y/N)	Initial Vacuum	Time Start	Final Vacuum	Time Finish	
8/26/10	VMP-9-5	83.18	6	6	520	FL00500	Y	Y	30" Hg	1234	4" Hg	1254	y
8/26/10	VMP-9-11.5	130.17	9	9	1038	FL00502	Y	Y	30" Hg	1331	7" Hg	1413	b
8/26/10	VMP-9-25.5	231.39	16	16	3032	FL00503	Y	Y	30" Hg	1441	5" Hg	1513	g
8/26/10	VMP-9-38.5	325.38	22	Not achieved: 22 pumps	420 30" Hg vacuum		Y						r
9/2/10	VMP-10-5	83.18	6	6	5164	6749	Y	Y	30" Hg	1029	7.5" Hg	1103	y
9/2/10	VMP-10-10	119.33	8	8	3263	FL00551	Y	Y	30" Hg	1141	7.5" Hg	1214	b
9/2/10	VMP-10-20	191.63	13	13	3767	40796	Y	Y	29" Hg	1244	8.5" Hg	1318	g
9/7/10	VMP-10-30	263.93	18	Not achieved:	Held at 11" Hg vacuum								r
9/7/10	VMP-11-5	83.18	6	6	2010	6860	Y	Y	30" Hg	1420	5.5" Hg	1445	y
9/8/10	VMP-11-8	104.87	7	7	2174	FG00294	Y	Y	30 in Hg	0926	7" Hg	1000	b
9/8/10	VMP-11-29	256.70	18	18	3513	FL00895	Y	Y	30 in Hg	1040	7" Hg	1117	g
9/8/10	VMP-11-38	321.77	22	Not achieved:	Held 18" Hg vacuum								r
9/3/10	VMP-12-5	83.18	6	6	3487	FL00740	Y	Y	30	1126	8	1156	y
9/3/10	VMP-12-11.5	130.17	9	9	2158	FL00514	Y	Y	30	1243	8	1314	b
9/3/10	VMP-12-25	227.78	16	16	3704	FL00789	Y	Y	30	1356	7	1435	g
9/3/10	VMP-12-39	329.00	22	Not achieved:	Held 15" Hg vacuum								r

SOIL VAPOR SAMPLING - CANISTER SAMPLING DATA

Date	Port ID	Required Purge (mL)	15 mL Hand Pumps	Number of Hand Pumps Achieved	Canister ID	Flow Controller ID	Vacuum Leak Check OK (Y/N)	Helium Leak Check OK (Y/N)	Initial Vacuum	Time Start	Final Vacuum	Time Finish	
9/13/10	VMP-13-5	83.18	6	~~6~~ 6	3451	FC00837	Y	Y	30	0919	8	0947	y
9/13/10	VMP-13-10.5	122.94	9	10	2772	FC00906	Y	Y	30	1023	6	1053	b
9/13/10	VMP-13-21.5	202.47	14	14	781	FC00972	Y	Y	30	1202	6	1232	g
9/13/10	VMP-13-29.5	260.31	18	Not achieved	held at	20" Hg							r
9/10/10	VMP-14-5	83.18	6	6	1114	40801	Y	Y	30 in Hg	1315	65 in Hg	1345	y
9/10/10	VMP-14-11.5	130.17	9	9	3751	FC00192	Y	Y	30 in Hg	1419	4.5 in Hg	1450	b
9/10/10	VMP-14-20	191.63	13	13	573	FC00293	Y	Y	30 in Hg	1522	5.0 in Hg	1549	g
9/10/10	VMP-14-29	256.70	18	Not achieved	held at	15" Hg							r
9/14/10	VMP-15-5	83.18	6	6	2149	FC00983	Y	Y	30	0900	7	0929	y
9/14/10	VMP-15-21.5	202.47	14	14	678	FC00363	Y	?	30	1010	6 in Hg	1037	b
9/14/10	VMP-15-25.5	231.39	16	16	2678	FC00469	Y	?	30	1118	7	1149	g
9/14/10	VMP-15-29	256.70	18	Failed Helium Leak check			Y	N					r
9/12/10	VMP-16-5	83.18	6	6	3072	FC00576	Y	?	30	1148	5	1212	y
9/12/10	VMP-16-13.5	144.63	10	10	3268	FC00598	Y	?	30	1302	5	1330	b
9/12/10	VMP-16-19	184.40	13	13	2700		Y	?	30	1414	5	1447	g
9/13/10	VMP-16-31	271.16	19	19	3237	FC00768	Y	?	29.5	0940	10	1016	r

SOIL VAPOR SAMPLING - CANISTER SAMPLING DATA

Date	Port ID	Required Purge (mL)	15 mL Hand Pumps	Number of Hand Pumps Achieved	Canister ID	Flow Controller ID	Vacuum Leak Check OK (Y/N)	Helium Leak Check OK (Y/N)	Initial Vacuum	Time Start	Final Vacuum	Time Finish
9/1/10	VMP-17-5	83.18	6	6	3177	FC00102	Y	Y	30" Hg	5:10	8" Hg	5:45
9/7/10	VMP-18-8.5	108.48	8	8	3402	40783	Y	Y	30" Hg	0858	7" Hg	0930
9/10/10	VMP-19-5	83.18	6	6	3509	FC00910	Y	Y	30" Hg	1342	7" Hg	1417
8/26/10	VMP-19-25-D	231.39	16	16	3147	6486	Y	Y	30" Hg	1441	6" Hg	1518
8/30/10	VMP-18-9.5-D	115.71	8	8	3027	FC00552	Y	Y	30" Hg	1110	6" Hg	1148
8/26/10	VMP-18-25-D	199.63	16	16	2140	FC00102	Y	Y	30" Hg	7:10	6" Hg	7:31
9/7/10	VMP-10-20-D	191.63	13	13	2123	FC00762	Y	Y	29" Hg	1246	7.5" Hg	1316
9/10/10	VMP-14-D	191.63	13	13	1420	FC00761	Y	Y	30" Hg	1522	6.5" Hg	1553
8/13/10	VMP-13-10.5-D	211.71	4	10	1157	FC00242	Y	Y	1013	30"	1013	4.5"
9/20/10	VMP-3-10	110.3	8	8	3658	FC00294	Y	Y	1149	28"	1216	5"
9/20/10	VMP-3-22	206.07	14	14	3660	6838	Y	Y(?)	1042	30"	1107	5"

SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar										Shroud		Tedlar		
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Date	Port ID	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
8/25/10	VMP-1-5	0.0	0.0	2	0	0	14.2%	0.2%	4%	1.1%	19.6%	0.0ppm	2.1%	51.9%	67.0%	N/A
8/25/10	VMP-1-8.5	0.0	2.6	0	0	0	0.0%	0.3%	6%	7.0%	7.0%	3.3%	4.3%	50.1%	50.1%	N/A
8/30/10	VMP-1-23.5	0.0	190	7	0.0	0.0%	7.7	7.8	0.2	2.5%	3.1%	50.8%	47.3%	N/A		
8/30/10	VMP-1-38.5															
8/31/10	VMP-2-5	4278	98.9	24	1	35	0.0	63.4	7.7	11.4	0.2	0.0	4525ppm	50.3	48.8	N/A
8/31/10	VMP-2-8.5	0.0	48.9	48	2	0.0	99.9	7.7	0.1	0.0	6675ppm	13325ppm	59.3	46.7	N/A	
8/31/10	VMP-2-22	0.0	62	0	2	0.0	99.9	7.7	0.0	0.0	2.3%	2.5%	59.7	53.4	N/A	
8/31/10	VMP-2-42	Not achieved: Held at 18" Hg Vacuum														
9/9/10	VMP-3-5	0.0	137	104	4	0.0	7.7	7.7	12.3	0.0	2.8%	5.0%	52.0%	51.7%	10.5% He	0.0% He
9/9/10	VMP-3-10	0.0	14.4	1033	9	0.0	0.0	0.0	0.0	0.0	12.2%	17.0%	57.8%	37.6%	10.1% He	0.0% He
9/10/10	VMP-3-22	0.0	10.9	511	15	0.0	7.7	7.7	9.7%	0.0	10.3%	9.2%	59.1%	58.0%	17.7% He	0.0% He
9/9/10	VMP-3-31.5	0.0	14.9	1033	7	0.0	7.7	7.7	4.6%	0.0	18.2%	17.0%	57.2%	37.6%	0.0% He	0.0% He
9/9/10	VMP-3-39	Not achieved: Held at 22" Hg Vacuum														
8/25/10	VMP-4-5	0.0	70.7	305	7	0.0	0.0%	99.8%	7.7	0.0%	0.0%	0.0ppm	2.3%	50.1%	46.6%	N/A
8/26/10	VMP-4-12	0.0	77.8	432	25	0.0	0.0%	99.8%	7.7	13.5%	0.2%	3.4	4.6	57.1%	54.0	N/A
8/31/10	VMP-4-23.5	0.0	2.8	1006	70	0.0	7.7	0	5.7%	0.7%	12.7%	14.3	54.5%	37.8%	12.7%	
8/31/10	VMP-4-39	Not achieved: Held at 16" Hg Vacuum														

★ Dielectric Helium detector read 12.7% on VMP-4-23.5. However, the Tedlar Bag was further analyzed with the Landtec to determine if these levels were methane. The Landtec read 799.1% for methane in the initial Tedlar bag.

★ VMP-3-22 is labeled incorrectly. The correct label is VMP-3-10-Dup. All other information for this VMP is correct.

SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar														
Instrument		FID	MultiRAE					Landtec				Dielectric		Shroud Dielectric		Tedlar Dielectric
Date	Port ID	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
9/9/10	VMP-5-5	711	331	429	11	0VR	0.0	>>>	>>>	12.4%	1.6%	767ppm	550ppm	63.3%	61.5%	N/A
9/9/10	VMP-5-12.5	1.5	276	249	14	0VR	0.0	>>>	>>>	14.3%	0.0	930ppm	6375ppm	54.6%	53.1%	N/A
9/9/10	VMP-5-31	0VR	00	875	21	0VR	0.0	>>>	>>>	9.4%	0.0	9.2%	10.2%	48.0%	46.2%	2.1% - 4%
9/9/10	VMP-5-40		Not achieved: Held at 15" Hg vacuum													
9/8/10	VMP-6-5	357	327	76	3	27	0.0	12.8%	>>>	15.3	0.0	0ppm	1125ppm	57.3%	56.4%	N/A
9/3/10	VMP-6-10	793	356	138	6	50	0.0	38.3%	>>>	14.8	0.0	540ppm	7250ppm	51.6%	37.9%	N/A
9/8/10	VMP-6-31.5	3.2	380	711	41	0VR	0.0	>>>	>>>	129	0.0	2.7%	2.0%	56.6%	46.9%	2.3% - 4%
9/8/10	VMP-6-39		Not achieved: Held 20" Hg vacuum													
8/26/10	VMP-7-5	397	0.0	0	1	0	0.8	0.0%	0	4.5%	13.4%	1.7%	1.5%	56.6%	50.3%	N/A
8/24/10	VMP-7-13.5	515	62.8	2	2	16	0.0	1.1%	22	16.7	0.4%	0ppm	0ppm	50.8%	56.2%	N/A
8/31/10	VMP-7-29.5	730	234	187	10	0	0.0	57.1	>>>	13.0	0.3	9200ppm	7925ppm	50.4%	48.3%	N/A
8/31/10	VMP-7-38		Not achieved: Held 18" Hg vacuum													
8/30/10	VMP-8-5	5.5	0.4	0	0	0	6.4	0.0%	0%	7.3%	13.4%	0ppm	1325ppm	50.4%	50.6%	N/A
8/15/10	VMP-8-9.5	4.4	0.2	0	0	0	0.0	0.0%	0.0%	9.0%	10.4%	0ppm	0ppm	50.2%	48.9%	N/A
8/31/10	VMP-8-23.5	3.8	0.0	1	0	3	0.0	0.0%	0.0%	9.3%	9.7%	0ppm	0ppm	55.2%	60.0%	N/A
8/30/10	VMP-8-35.5															

SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar										Shroud		Tedlar		
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Date	Port ID	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
5/26/10	VMP-9-5	3.61	0.0	2	0	3	0.4	0.4%	8	4.6	4.7	0ppm	0ppm	50.1%	45.6%	N/A
8/26/10	VMP-9-11.5	19.62	36.7	8	0	4.2	0.0	3.2	64	13.7	0.5	0ppm	2800	54.0%	34.7%	N/A
8/26/10	VMP-9-25.5	19.62	153	32	12	Neg	0.0	19.4	388	13.8	0.0	6275	9800	50.0%	47.6%	N/A
8/26/10	VMP-9-38.5													62.5%		
9/7/10	VMP-10-5	2.77	0.1	0	0	0	0.0	0.0	0	6.4	14.0	0ppm	0ppm	60.2%	35.8%	N/A
9/7/10	VMP-10-10	1.87	0.0	0	0	0	0.0	0.0	0	9.0	11.9	0ppm	0ppm	53.4%	25.5%	N/A
9/7/10	VMP-10-20	1.03	0.0	0	0	0	0.0	0.0	0	12.3	9.4	0ppm	0ppm	51.8%	32.9%	N/A
9/7/10	VMP-10-30	Not achieved; Held at 11" Hg Vacuum														
9/7/10	VMP-11-5	2.29	0.1	2	0	0	0.0	0.0	0	9.9	10.3	0ppm	0ppm	57.9%	44.3%	N/A
9/8/10	VMP-11-8	1.05	0.0	0	0	0	0.0	0.0	0	9.5	11.0	0ppm	0ppm	52.3%	37.0%	N/A
9/8/10	VMP-11-29	1.40	17.3	1	0	5	0.0	0.0	1	14.7	0.0	0ppm	0ppm	63.8%	40.0%	N/A
9/8/10	VMP-11-38	Not achieved; Held at 18" Hg vacuum														
9/3/10	VMP-12-5	0VR	22.5	145	23	off	0.0	777	777	14.5	0.7	*10.4	*11.1%	48.7%	45.7%	*10.1%
9/3/10	VMP-12-11.5	0VR	44.1	293	15	off	0.0	777	777	15.2	0.0	*9.0	*10.1%	54.1%	35.4%	*11.4%
9/3/10	VMP-12-25	0VR	44.1	377	7	off	0.0	777	777	15.3	0.5	*11.6	*10.6%	52.6%	34.9%	*10.8%
9/3/10	VMP-12-39															

* Low-level CH4 reading >777 (over range)

SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar										Shroud		Tedlar		
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Date	Port ID	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
9/8/10	VMP-13-5	353	0.0	0	0	0	0.0	0.0	0.0	6.8	9.0	0 ppm	0 ppm	56.7%	46.7%	N/A
9/8/10	VMP-13-10.5	146	1.0	2	2	5	0.0	0.1%	1.0%	8.6%	0.7%	0 ppm	0 ppm	53.2%	50.3%	N/A
9/8/10	VMP-13-21.5	3560	1869	7	0	30	0.0	2.4%	4.9%	12.2	0.0	5.15 ppm	0 ppm	56.7%	27.7%	N/A
9/8/10	VMP-13-29.5															
9/10/10	VMP-14-5	23910	1.6	0	0	0VR	0.0	22.1%	>>>	20.1	0.0	3.8%	4.0%	53.0%	51.4%	3.2% CH4 15.7% CH4
9/10/10	VMP-14-11.5	7441%	10.4	42	75	0VR	0.0	>>>	>>>	16.5	0.0	7.0%	7.3%	52.3%	47.2%	6.8% CH4 0.5% CH4
9/10/10	VMP-14-20	0VR	56.8	184	0	0VR	0.0	>>>	>>>	17.2	0.0	7.8%	7.7%	63.8%	50.5%	6.6% CH4 0.2% CH4
9/10/10	VMP-14-29		Not achieved: Held at 15" Hg vacuum													
9/14/10	VMP-15-5	0.0	0.0	0	0	5	0.0	0.1	0.0	17.0	0.3	0 ppm	0 ppm	49.9%	49.9%	N/A
9/14/10	VMP-15-21.5	146%	4.5	5	92	0VR	0.0	30.8	>>>	19.1	0.0	3.9%	3.6%	50.1%	28.1%	5.4%
9/14/10	VMP-15-25.5	1178	299	1	0	15	0.0	1.6	32	7.7	11.1	6.3	8.1%	50.3%	30.2%	4.1%
9/14/10	VMP-15-29											10.1		56.1%		
9/14/10	VMP-16-5	0VR	6.2	16.7	9	0H	0.0	>>>	>>>	17.4	0.6	15.1%	12.7%	61.2%	23.1%	1.4%
9/14/10	VMP-16-13.5	0VR	32.6	170	10	02	0.0	>>>	>>>	19.0	0.1	13.0%	13.0%	54.2%	31.2	16.7%
9/14/10	VMP-16-19	0VR	0.0	162	12	0	0.0	>>>	>>>	18.5	0.0	11.4%	10.8%	51.1%	20.7%	15.6%
9/13/10	VMP-16-31	13.18	1.3	2	0	36	0.1	0.0	0.0	0.3	15.5	15.1%	14.8%	50.2%	41.2%	14.6%

* Longest CH4 reading >>> (over range)
 ** 26% CH4 on landtec before / 36.1% CH4 After
 + 1.5% CH4

SOIL VAPOR SAMPLING - TEDLAR SAMPLING DATA

Reading Location		Tedlar										Shroud		Tedlar		
Instrument		FID	MultiRAE					Landtec				Dielectric		Dielectric		Dielectric
Date	Port ID	FID	PID (ppm)	CO (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CH4 (%)	LEL (%)	CO2 (%)	O2 (%)	Helium Before	Helium After	Helium in Shroud Before	Helium in Shroud After	Direct Port Reading After
9/1/10	VMP-17-5	-16.4	0.0	2	0	0	0.0	0.6	12	8.1	11	0.0%	0.0%	64.5%	55.2%	N/A
9/7/10	VMP-18-8.5	-8.1	0.0	0	0	0	0.0	0.0	0.0	11.2	12.4	0.0%	55.0%	63.7%	63.7%	N/A
9/1/10	VMP-19-5	2.28	1.1	2	0	0	0.0	0.7	10.7	10.7	8.5	0.0%	1.1%	52.0%	58.6%	N/A
8/10/10	VMP-4-28.5-DP	41.5	153	32	12	N/A	0.0	19.4	388	13.8	0.0	4.75%	9.0%	50.0%	47.0%	N/A
8/30/10	VMP-8-9.5-DP	6.2	0.2	0	0	0	0.0	0.0%	0.0%	9.2%	10.4%	0.0%	0.0%	56.7%	48.9%	N/A
9/7/10	VMP-10-2000	-10.8	0.0	0	0	0	0.0	0.0	0	12.3	9.4	0.0%	0.0%	51.8%	32.9%	N/A
9/10/10	VMP-14-2000	OVR	54.0	184	0	OVR	0.0	777	777	17.2	0.0	7.8%	7.7%	63.8%	50.5%	66.4%
9/2/10	VMP-16-1300	OVR	32.0	170	10	0.4	0.0	777	777	14.4	0.1	8.3%	7.0%	81.8%	81.5%	16.0%
9/13/10	VMP-13-10.5-DP	14.6	1.0	2	2	5	0.0	0.7%	1.0%	8.6%	0.7%	0.0%	0.0%	53.2%	30.3%	N/A
9/10/10	VMP-3-10	OVR	14.2	0	10	off	0.3	777	777	9.0	1.3	6.7%	2.5%	41.1%	44.5%	8.1%
9/30/10	VMP-3-2	OVR	51.2	0	39	off	0.7	777	777	8.8	0.4	4.6%	4.4%	51.2%	51.0%	5.1%

4.6%

Roxana Vapor Data Review

Laboratory SDG: 1008677

Reviewer: Elizabeth Kunkel

Date Reviewed: 9/14/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008. USEPA National Functional Guidelines for Inorganic Data Review 2004

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-1-5-082510	VMP-1-8.5-082510
VMP-4-5-082510	VMP-4-12-082510
VMP-7-5-082610	VMP-7-13.5-082610
VMP-9-5-082610	VMP-9-11.5-082610
VMP-9-25.5-082610	VMP-9-25.5-082610-DUP

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that sample VMP-4-12-082510 was diluted due to high levels of non-target analytes. Additionally, TO-15 analytes and natural gases were detected in the method blank. Helium was qualified in field duplicate pair, VMP-9-25.5-082610/VMP-9-25.5-082610-Dup due to the field duplicate RPD outside evaluation criteria. Professional judgment was used to qualify the compound, 2,2,4-trimethylpentane in sample VMP-7-13.5-082610. These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1008677A-11A	TO-15	Isopropylbenzene	0.080 ppbv/0.39 µg/m ³
1008677A-11A	TO-15	Propylbenzene	0.086 ppbv/0.42 µg/m ³
1008677A-11A	TO-15	1,3,5-Trimethylbenzene	0.12 ppbv/0.59 µg/m ³
1008677A-11A	TO-15	1,3-Dichlorobenzene	0.11 ppbv/0.69 µg/m ³
1008677A-11A	TO-15	1,4-Dichlorobenzene	0.12 ppbv/0.74 µg/m ³
1008677A-11A	TO-15	1,2-Dichlorobenzene	0.094 ppbv/0.57 µg/m ³
1008677A-11A	TO-15	1,2,4-Trichlorobenzene	0.32 ppbv/2.3 µg/m ³
1008677A-11A	TO-15	Hexachlorobutadiene	0.20 ppbv/2.1 µg/m ³
1008677B-11A	Natural gases	Oxygen	0.019%
1008677B-11A	Natural gases	Nitrogen	0.082%

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
VMP-9-25.5-082610	VMP-9-25.5-082610-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
VMP-9-25.5-082610	VMP-9-25.5-082610-DUP	Natural gases	Helium	108	J

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Professional judgment was used to qualify 2,2,4-trimethylpentane in sample, VMP-7-13.5-082610 due to 2,2,4-trimethylpentane results having exceeded the calibration range of the instrument.

Sample ID	Analyte	Qualification	Comment
VMP-7-13.5-082610	2,2,4-Trimethylpentane	J	Professional Judgment

FULL VALIDATION OF TO-15 DATA - SDG 1008677

This section describes the full validation for seven vapor samples which were analyzed by USEPA Method TO-15. Samples were analyzed by Air Toxics Laboratory, Folsom, California and submitted as part of sample delivery group (SDG) 1008677. Samples included as part of this validation are listed below:

Sample Identification	Sample Identification
VMP-1-5-082510	VMP-1-8.5-082510
VMP-4-5-082510	VMP-4-12-082510
VMP-7-5-082610	VMP-9-5-082610
VMP-9-11.5-082610	

QA/QC criteria were identified in the Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Work Plan (URS 2009) and USEPA Method TO-15. Evaluation of the analytical data followed procedures outlined in the USEPA Contract Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) where applicable to EPA Method TO-15.

Criteria evaluated included the following method performance criteria:

- Data package completeness
- Laboratory case narrative/cooler receipt form
- Sample holding times
- GC/MS instrument performance
- Initial calibration
- Calibration verification
- Blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS)
- Target compound identification and quantitation
- Overall data assessment

1.1 Data Package Completeness

The data package was reviewed to make certain that it contained the data contractually required in the deliverable. This included checking the data package for the results of each analyte requested for each field sample submitted in the analytical batch, along with requested QC documentation for the respective methods. The data package was complete.

1.2 Laboratory Case Narrative/Cooler Receipt Form

The laboratory case narrative indicated that sample VMP-4-12-082510 was diluted due to high levels of non-target analytes. Additionally, TO-15 analytes were detected in the method blank. These issues are addressed further in the appropriate sections below. The cooler receipt form did not indicate any problems for the validated samples.

1.3 Sample Holding Times

Review of the sample collection and analysis dates involved comparing the chains-of-custody, the summary forms, the raw data forms, and the chromatograms for accuracy, consistency, and holding time compliance. The validated samples were analyzed within the 14 day holding time criteria. No qualification of data was required due to holding time criteria.

1.4 GC/MS Instrument Performance

GC/MS instrument performance checks were performed to ensure mass resolution, identification, and instrument sensitivity. Criteria for evaluation of instrument performance included possible transcription/calculation errors, adherence to instrument tuning frequency requirements, mass assignments, and ion abundance criteria. Instrument performance check samples were evaluated against criteria established in USEPA Method TO-15.

Based on the raw data, the ion abundance criteria were within evaluation criteria for all masses, and no qualification of data was required. The raw data forms were checked against the summary forms and no calculation or transcription errors were noted.

1.5 Initial Calibration

An Initial calibration (ICAL) was established to assess whether the instrument was capable of producing acceptable qualitative and quantitative data for TO-15 analysis. Samples as part of SDG 1008677 were analyzed using instrument msdw. The ICAL for instrument msdw was established on 8/17/2010 prior to sample analysis and using at least five concentration standards to establish the initial calibration curve as required by Method TO-15. An average response factor (RF) was determined for each target analyte, the RFs were reviewed and verified greater than 0.10 for chloromethane, 1,1-dichloroethane and bromoform, 0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane and greater than 0.05 for all other target analytes.

Review of the initial calibration summary forms indicated %RSDs were $\leq 30\%$ for target analytes. Percent RSDs were recalculated from the raw data and no errors in calculation were noted; therefore, no qualification of data was required.

1.6 Calibration Verification

Review of the sample chromatograms indicated the calibration verifications (CVs) were performed at the required frequency every 12 hours. Review of continuing calibration summary forms indicated all RFs met the evaluation criteria of greater than 0.10 (chloromethane, 1,1-dichloroethane and bromoform), 0.30 (chlorobenzene and 1,1,2,2-tetrachloroethane) and greater than 0.05 for all other analytes for each CCAL. In addition, percent differences (%Ds) and percent drift (%Drift) met the evaluation criteria of $\leq 30\%$ for all other target analytes. Recalculations of the RFs and %Ds for two target compounds were completed for each CV, and no errors in calculation were noted.

1.7 Blank Samples

The purpose of the method blank samples is to evaluate the existence and magnitude of contamination problems emanating from laboratory activities. Method blank samples were analyzed with each analytical batch as required by USEPA Method TO-15. All target compounds were reported as non-detect in all method blanks analyzed as part of this SDG with the exceptions summarized in the following table:

Blank ID	Parameter	Analyte	Concentration/Amount
1008677A-11A	TO-15	Isopropylbenzene	0.080 ppbv/0.39 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	Propylbenzene	0.086 ppbv/0.42 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	1,3,5-Trimethylbenzene	0.12 ppbv/0.59 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	1,3-Dichlorobenzene	0.11 ppbv/0.69 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	1,4-Dichlorobenzene	0.12 ppbv/0.74 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	1,2-Dichlorobenzene	0.094 ppbv/0.57 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	1,2,4-Trichlorobenzene	0.32 ppbv/2.3 $\mu\text{g}/\text{m}^3$
1008677A-11A	TO-15	Hexachlorobutadiene	0.20 ppbv/2.1 $\mu\text{g}/\text{m}^3$

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

The review of chromatograms indicates all peaks present were accounted or the concentrations reported were below the method detection limit. No qualification of data was required.

1.8 Surrogate Spike Recoveries

Surrogate compounds were used to evaluate the overall laboratory sample preparation efficiency on a per sample basis. All surrogate recoveries were within the method acceptance criteria.

A minimum of 10% of the recoveries were recalculated, and the summary forms versus the raw data were verified. No calculation or transcription errors were noted and no qualification of data was required.

1.9 Internal Standards and Retention Times

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. IS areas must be within -50% to +100%, and the IS retention times must be within 30 seconds of the IS continuing calibration retention time. IS areas and retention times for the validated samples in this SDG were within evaluation criteria. The summary forms versus the raw data were verified and no transcription errors were noted.

1.10 Laboratory Control Sample (LCS)

Laboratory control samples were analyzed with each analytical batch to assess the accuracy of the analytical process. LCS recoveries were within evaluation criteria. No qualification of data was required based on LCS recoveries.

A minimum of 10% of the spiking compound recoveries for the LCS's were recalculated using the LCS summary forms, and no calculation or transcription errors were noted.

1.11 Target Compound Identification and Quantitation

For validation of the compound identification, chromatograms were reviewed to verify the major target peaks were identified, the spectra of the identified compounds were verified against the library spectra, and the relative retention time was no greater than 0.06 different from the associated CV retention times. A minimum of 10% of the detected target analytes and spiking compounds were verified. No anomalies were noted with the identification of the target compounds in the samples.

For the validation of compound quantitation, 10% of the target analytes were recalculated from the raw data, and no calculation errors were noted. Additionally, the reporting limits were verified to determine if reporting limits (RLs) were adjusted for dilutions. No qualification of the data was required and review of the data indicated the correct RLs were reported.

1.12 Overall Data Assessment

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy and precision, based on LCS and surrogate data were achieved for this SDG.

FULL VALIDATION OF NATURAL GASES DATA – SDG 1008677

This section describes the full data validation of seven vapor samples which were analyzed for natural gases (oxygen, nitrogen, carbon monoxide, methane, carbon dioxide, ethane, ethane, and helium) using method ASTM D-1946 + He.

Samples were analyzed by Air Toxics Laboratory, of Folsom, California, and submitted as part of sample delivery group (SDG) 1008677. Samples included as a part of this validation are listed below:

Sample Identification	Sample Identification
VMP-1-5-082510	VMP-1-8.5-082510
VMP-4-5-082510	VMP-4-12-082510
VMP-7-5-082610	VMP-9-5-082610
VMP-9-11.5-082610	

QA/QC criteria were identified in the Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Work Plan (URS 2009) and evaluation of the analytical data followed procedures outlined in the USEPA Contract Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) where applicable to method ASTM D-1946. The evaluation criteria used during the validation were a combination of those criteria presented in method ASTM D-1946 and the laboratory criteria based on historical data.

Criteria evaluated included the following method performance criteria:

- Data package completeness
- Laboratory case narrative/cooler receipt form
- Sample holding times
- Blank contamination
- Initial calibration
- Calibration verification
- Laboratory control samples (LCS)
- Sample result verification
- Overall data assessment

1.1 Data Package Completeness

The data package was reviewed to make certain that it contained the data contractually required in the deliverable. This included checking the data package for results of each analyte requested for each field sample submitted in the analytical batch, along with requested QC documentation for the respective method. The data package was complete.

1.2 Laboratory Case Narrative/Cooler Receipt Form

Although not indicated in the laboratory case narrative, natural gases were detected in the method blank. This issue is addressed further in the appropriate section below. The cooler receipt form did not indicate any problems for the validated samples.

1.3 Sample Holding Times

Review of the sample collection and analyses dates involved comparing the chain-of-custody, the analysis run logs, and raw data forms for holding time compliance. Samples were analyzed within Air Toxic's Laboratory holding time criteria of 30 days for samples collected in Summa canisters. No qualifications of data was required based on holding times.

1.4 Blank Contamination

The purpose of method blank samples was to evaluate the existence and magnitude of contamination problems emanating from laboratory activities. Method blank samples were analyzed with each analytical batch as required. A review of the method blank summary forms and the raw data forms for all blanks indicated all target compounds were reported as non-detect with exceptions summarized in the table below.

Blank ID	Parameter	Analyte	Concentration/Amount
1008677B-11A	Natural gases	Oxygen	0.019%
1008677B-11A	Natural gases	Nitrogen	0.082%

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

1.5 Initial Calibration

An Initial calibration (ICAL) was established to assess whether the instrument was capable of producing acceptable qualitative and quantitative data for the natural gases analyses. An initial calibration was established at the beginning of the run sequence for natural gases analyses. A minimum of five standards was used to establish the initial calibration curve as required by the analytical method. Average response factors (RFs) for several analytes were recalculated and compared to laboratory RFs. No qualification of data was required.

Review of the initial calibration summary forms indicated %RSDs were $\leq 15\%$ for target analytes. Percent RSDs were recalculated from the raw data and no errors in calculation were noted; therefore, no qualification of data was required.

1.6 Calibration Verification

Calibration verification (CV) criteria were established to assess whether the instrument was capable of producing acceptable qualitative and quantitative data established by the initial calibration curve. CV samples were analyzed at the required frequency of every 10 samples and the percent recovery (%R) values were within evaluation criteria for method ASTM D-1946. Several CV sample recoveries were recalculated and compared to the raw data. No calculation or transcription errors were noted.

1.7 Laboratory Control Samples

Laboratory control samples (LCS) were established to assess the accuracy of the analytical method and to demonstrate laboratory performance. LCS recoveries were within the evaluation criteria; therefore, no qualification of data was required. A minimum of 10% of LCS recoveries were recalculated and compared to the raw data; no calculation or transcription errors were noted.

1.8 Sample Result Verification

Several of the validated sample results were recalculated to verify that analyte quantitation was derived accurately, and no calculation errors were noted. Data summary forms were reviewed and compared to the raw data package. No transcription errors were noted and the correct reporting limits were used.

1.9 Overall Data Assessment

Based on the criteria outlined, it is recommended that the results reported for these analyses be accepted for their intended use. Acceptable levels of accuracy and precision based on LCS data was achieved for this SDG.

9/7/2010
Mr. Mike Miller
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1008677A

Dear Mr. Mike Miller

The following report includes the data for the above referenced project for sample(s) received on 8/27/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/14/2010

WORK ORDER #: 1008677A

Work Order Summary

CLIENT:	Mr. Mike Miller URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-566-3073	P.O. #	21562289.00011
FAX:		PROJECT #	Roxana Dissolved Phase
DATE RECEIVED:	08/27/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/07/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-1-5-082510 ✓	Modified TO-15	6.6 "Hg	15 psi
02A	VMP-1-8.5-082510 ✓	Modified TO-15	6.4 "Hg	15 psi
03A	VMP-4-5-082510 ✓	Modified TO-15	9.0 "Hg	15 psi
04A	VMP-4-12-082510 ✓	Modified TO-15	6.0 "Hg	15 psi
05A	VMP-7-5-082610 ✓	Modified TO-15	7.0 "Hg	15 psi
06A	VMP-7-13.5-082610 ✓	Modified TO-15	9.0 "Hg	15 psi
07A	VMP-9-5-082610 ✓	Modified TO-15	3.4 "Hg	15 psi
08A	VMP-9-11.5-082610 ✓	Modified TO-15	6.4 "Hg	15 psi
09A	VMP-9-25.5-082610 ✓	Modified TO-15	5.0 "Hg	15 psi
10A	VMP-9-25.5-082610-DUP ✓	Modified TO-15	6.6 "Hg	15 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:

Linda D. Freeman

Laboratory Director

DATE: 09/07/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1008677A**

Ten 1 Liter Summa Canister samples were received on August 27, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on sample VMP-4-12-082510 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

rI-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-1-5-082510

Lab ID#: 1008677A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	0.57 J	21	2.8 J
Ethanol	17	16 J	32	30 J
Acetone	17	29	40	68
Carbon Disulfide	4.2	1.1 J	13	3.5 J
Hexane	4.2	7.1	15	25
2-Butanone (Methyl Ethyl Ketone)	4.2	2.2 J	12	6.6 J
Cyclohexane	4.2	5.7	15	20
2,2,4-Trimethylpentane	4.2	160	20	740
Benzene	4.2	14	14	44
1,4-Dioxane	17	4.1 J	61	15 J
Toluene	4.2	0.82 J	16	3.1 J
m,p-Xylene	4.2	0.55 J	18	2.4 J

Client Sample ID: VMP-1-8.5-082510

Lab ID#: 1008677A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	51	23 J	120	54 J
Carbon Disulfide	13	6.2 J	40	19 J
2,2,4-Trimethylpentane	13	900	60	4200
Benzene	13	2.5 J	41	7.9 J

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	72	3800	250	13000
Cyclohexane	72	12000	250	40000
2,2,4-Trimethylpentane	72	47000	340	220000
Benzene	72	84	230	270
Heptane	72	430	300	1700

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677A-03A

Cumene	72	9.7 J	350	48 J
Propylbenzene	72	12 J	350	58 J
4-Ethyltoluene	72	12 J	350	61 J
1,2,4-Trimethylbenzene	72	11 J	350	54 J

Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1300	350000	4400	1200000
Cyclohexane	1300	250000	4300	880000
2,2,4-Trimethylpentane	1300	290000	5900	1400000
Benzene	1300	8900	4000	28000
Heptane	1300	100000	5200	420000
Ethyl Benzene	1300	1800	5500	7800
m,p-Xylene	1300	1300	5500	5600
Cumene	1300	720 J	6200	3600 J
Propylbenzene	1300	850 J	6200	4200 J
4-Ethyltoluene	1300	740 J	6200	3600 J
1,3,5-Trimethylbenzene	1300	310 J	6200	1500 J
1,2,4-Trimethylbenzene	1300	370 J	6200	1800 J

Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.60 J	6.5	3.0 J
Freon 11	1.3	0.28 J	7.4	1.6 J
Ethanol	5.3	3.7 J	9.9	7.0 J
Acetone	5.3	11	12	26
2-Propanol	5.3	2.6 J	13	6.4 J
Carbon Disulfide	1.3	0.91 J	4.1	2.8 J
Methylene Chloride	1.3	0.66 J	4.6	2.3 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677A-05A

Hexane	1.3	4.6	4.6	16
2-Butanone (Methyl Ethyl Ketone)	1.3	2.0	3.9	6.0
Cyclohexane	1.3	4.5	4.5	16
2,2,4-Trimethylpentane	1.3	7.2	6.2	34
Benzene	1.3	3.7	4.2	12
Heptane	1.3	1.1 J	5.4	4.4 J
Toluene	1.3	0.31 J	5.0	1.2 J
m,p-Xylene	1.3	0.16 J	5.7	0.71 J

Client Sample ID: VMP-7-13.5-082610

Lab ID#: 1008677A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	29	10 J	100	35 J
2,2,4-Trimethylpentane	29	50000 J	140	240000 J
Benzene	29	47	92	150
Cumene	29	3.0 J	140	15 J

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.61 J	5.6	3.0 J
Ethanol	4.6	7.9	8.6	15
Acetone	4.6	12	11	29
2-Propanol	4.6	5.0	11	12
Carbon Disulfide	1.1	0.61 J	3.6	1.9 J
Methylene Chloride	1.1	2.1	4.0	7.2
Hexane	1.1	4.6	4.0	16
2-Butanone (Methyl Ethyl Ketone)	1.1	1.8	3.4	5.3
Cyclohexane	1.1	3.1	3.9	11
2,2,4-Trimethylpentane	1.1	6.2	5.3	29
Benzene	1.1	2.7	3.6	8.8

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677A-07A

Heptane	1.1	1.3	4.7	5.5
1,4-Dioxane	4.6	2.2 J	16	8.0 J
Toluene	1.1	0.95 J	4.3	3.6 J
Tetrachloroethene	1.1	0.34 J	7.7	2.3 J
Ethyl Benzene	1.1	0.11 J	4.9	0.48 J
m,p-Xylene	1.1	0.31 J	5.0	1.3 J

Client Sample ID: VMP-9-11.5-082610

Lab ID#: 1008677A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	26	350	88	1200
2,2,4-Trimethylpentane	26	21000	120	98000
Benzene	26	50	82	160

Client Sample ID: VMP-9-25.5-082610

Lab ID#: 1008677A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	200	920	710	3200
Cyclohexane	200	9000	690	31000
2,2,4-Trimethylpentane	200	140000	940	650000
Benzene	200	1000	640	3200
Heptane	200	270	820	1100
Cumene	200	26 J	990	130 J
Propylbenzene	200	28 J	990	140 J
1,2,4-Trimethylbenzene	200	38 J	990	190 J

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	220	900	760	3200

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677A-10A

Cyclohexane	220	9200	740	32000
2,2,4-Trimethylpentane	220	140000	1000	660000
Benzene	220	1000	690	3300
Heptane	220	260	880	1100
Cumene	220	26 J	1100	130 J
1,2,4-Trimethylbenzene	220	34 J	1100	170 J

Client Sample ID: VMP-1-5-082510

Lab ID#: 1008677A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083121	Date of Collection: 8/25/10 10:22:00 AM		
Dil. Factor:	8.50	Date of Analysis: 8/31/10 09:23 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	0.57 J	21	2.8 J
Freon 114	4.2	Not Detected	30	Not Detected
Chloromethane	17	Not Detected	35	Not Detected
Vinyl Chloride	4.2	Not Detected	11	Not Detected
1,3-Butadiene	4.2	Not Detected	9.4	Not Detected
Bromomethane	4.2	Not Detected	16	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	4.2	Not Detected	24	Not Detected
Ethanol	17	16 J	32	30 J
Freon 113	4.2	Not Detected	32	Not Detected
1,1-Dichloroethene	4.2	Not Detected	17	Not Detected
Acetone	17	29	40	68
2-Propanol	17	Not Detected	42	Not Detected
Carbon Disulfide	4.2	1.1 J	13	3.5 J
3-Chloropropene	17	Not Detected	53	Not Detected
Methylene Chloride	4.2	Not Detected	15	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Hexane	4.2	7.1	15	25
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	2.2 J	12	6.6 J
cis-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Tetrahydrofuran	4.2	Not Detected	12	Not Detected
Chloroform	4.2	Not Detected	21	Not Detected
1,1,1-Trichloroethane	4.2	Not Detected	23	Not Detected
Cyclohexane	4.2	5.7	15	20
Carbon Tetrachloride	4.2	Not Detected	27	Not Detected
2,2,4-Trimethylpentane	4.2	160	20	740
Benzene	4.2	14	14	44
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Heptane	4.2	Not Detected	17	Not Detected
Trichloroethene	4.2	Not Detected	23	Not Detected
1,2-Dichloropropane	4.2	Not Detected	20	Not Detected
1,4-Dioxane	17	4.1 J	61	15 J
Bromodichloromethane	4.2	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.2	Not Detected	17	Not Detected
Toluene	4.2	0.82 J	16	3.1 J
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	Not Detected	29	Not Detected

Client Sample ID: VMP-1-5-082510

Lab ID#: 1008677A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083121	Date of Collection: 8/25/10 10:22:00 AM
Dil. Factor:	8.50	Date of Analysis: 8/31/10 09:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	17	Not Detected	70	Not Detected
Dibromochloromethane	4.2	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.2	Not Detected	33	Not Detected
Chlorobenzene	4.2	Not Detected	20	Not Detected
Ethyl Benzene	4.2	Not Detected	18	Not Detected
m,p-Xylene	4.2	0.55 J	18	2.4 J
o-Xylene	4.2	Not Detected	18	Not Detected
Styrene	4.2	Not Detected	18	Not Detected
Bromoform	4.2	Not Detected	44	Not Detected
Cumene	4.2	Not Detected	21	Not Detected
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
Propylbenzene	4.2	Not Detected	21	Not Detected
4-Ethyltoluene	4.2	Not Detected	21	Not Detected
1,3,5-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,2,4-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,3-Dichlorobenzene	4.2	Not Detected	26	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	26	Not Detected
alpha-Chlorotoluene	4.2	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	130	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: VMP-1-8.5-082510

Lab ID#: 1008677A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090115	Date of Collection: 8/25/10 11:35:00 AM		
Dil. Factor:	2.57	Date of Analysis: 9/1/10 03:55 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	64	Not Detected
Freon 114	13	Not Detected	90	Not Detected
Chloromethane	51	Not Detected	110	Not Detected
Vinyl Chloride	13	Not Detected	33	Not Detected
1,3-Butadiene	13	Not Detected	28	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	13	Not Detected	34	Not Detected
Freon 11	13	Not Detected	72	Not Detected
Ethanol	51	Not Detected	97	Not Detected
Freon 113	13	Not Detected	98	Not Detected
1,1-Dichloroethene	13	Not Detected	51	Not Detected
Acetone	51	23 J	120	54 J
2-Propanol	51	Not Detected	130	Not Detected
Carbon Disulfide	13	6.2 J	40	19 J
3-Chloropropene	51	Not Detected	160	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	13	Not Detected	46	Not Detected
trans-1,2-Dichloroethene	13	Not Detected	51	Not Detected
Hexane	13	Not Detected	45	Not Detected
1,1-Dichloroethane	13	Not Detected	52	Not Detected
2-Butanone (Methyl Ethyl Ketone)	13	Not Detected	38	Not Detected
cis-1,2-Dichloroethene	13	Not Detected	51	Not Detected
Tetrahydrofuran	13	Not Detected	38	Not Detected
Chloroform	13	Not Detected	63	Not Detected
1,1,1-Trichloroethane	13	Not Detected	70	Not Detected
Cyclohexane	13	Not Detected	44	Not Detected
Carbon Tetrachloride	13	Not Detected	81	Not Detected
2,2,4-Trimethylpentane	13	900	60	4200
Benzene	13	2.5 J	41	7.9 J
1,2-Dichloroethane	13	Not Detected	52	Not Detected
Heptane	13	Not Detected	53	Not Detected
Trichloroethene	13	Not Detected	69	Not Detected
1,2-Dichloropropane	13	Not Detected	59	Not Detected
1,4-Dioxane	51	Not Detected	180	Not Detected
Bromodichloromethane	13	Not Detected	86	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	58	Not Detected
4-Methyl-2-pentanone	13	Not Detected	53	Not Detected
Toluene	13	Not Detected	48	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	58	Not Detected
1,1,2-Trichloroethane	13	Not Detected	70	Not Detected
Tetrachloroethene	13	Not Detected	87	Not Detected

Client Sample ID: VMP-1-8.5-082510

Lab ID#: 1008677A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090115	Date of Collection:	8/25/10 11:35:00 AM	
Dil. Factor:	2.57	Date of Analysis:	9/1/10 03:55 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	51	Not Detected	210	Not Detected
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	99	Not Detected
Chlorobenzene	13	Not Detected	59	Not Detected
Ethyl Benzene	13	Not Detected	56	Not Detected
m,p-Xylene	13	Not Detected	56	Not Detected
o-Xylene	13	Not Detected	56	Not Detected
Styrene	13	Not Detected	55	Not Detected
Bromoform	13	Not Detected	130	Not Detected
Cumene	13	Not Detected	63	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	88	Not Detected
Propylbenzene	13	Not Detected	63	Not Detected
4-Ethyltoluene	13	Not Detected	63	Not Detected
1,3,5-Trimethylbenzene	13	Not Detected	63	Not Detected
1,2,4-Trimethylbenzene	13	Not Detected	63	Not Detected
1,3-Dichlorobenzene	13	Not Detected	77	Not Detected
1,4-Dichlorobenzene	13	Not Detected	77	Not Detected
alpha-Chlorotoluene	13	Not Detected	66	Not Detected
1,2-Dichlorobenzene	13	Not Detected	77	Not Detected
1,2,4-Trichlorobenzene	51	Not Detected	380	Not Detected
Hexachlorobutadiene	51	Not Detected	550	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	81	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090117	Date of Collection: 8/25/10 2:25:00 PM		
Dil. Factor:	14.4	Date of Analysis: 9/1/10 04:56 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	72	Not Detected	360	Not Detected
Freon 114	72	Not Detected	500	Not Detected
Chloromethane	290	Not Detected	590	Not Detected
Vinyl Chloride	72	Not Detected	180	Not Detected
1,3-Butadiene	72	Not Detected	160	Not Detected
Bromomethane	72	Not Detected	280	Not Detected
Chloroethane	72	Not Detected	190	Not Detected
Freon 11	72	Not Detected	400	Not Detected
Ethanol	290	Not Detected	540	Not Detected
Freon 113	72	Not Detected	550	Not Detected
1,1-Dichloroethene	72	Not Detected	280	Not Detected
Acetone	290	Not Detected	680	Not Detected
2-Propanol	290	Not Detected	710	Not Detected
Carbon Disulfide	72	Not Detected	220	Not Detected
3-Chloropropene	290	Not Detected	900	Not Detected
Methylene Chloride	72	Not Detected	250	Not Detected
Methyl tert-butyl ether	72	Not Detected	260	Not Detected
trans-1,2-Dichloroethene	72	Not Detected	280	Not Detected
Hexane	72	3800	250	13000
1,1-Dichloroethane	72	Not Detected	290	Not Detected
2-Butanone (Methyl Ethyl Ketone)	72	Not Detected	210	Not Detected
cis-1,2-Dichloroethene	72	Not Detected	280	Not Detected
Tetrahydrofuran	72	Not Detected	210	Not Detected
Chloroform	72	Not Detected	350	Not Detected
1,1,1-Trichloroethane	72	Not Detected	390	Not Detected
Cyclohexane	72	12000	250	40000
Carbon Tetrachloride	72	Not Detected	450	Not Detected
2,2,4-Trimethylpentane	72	47000	340	220000
Benzene	72	84	230	270
1,2-Dichloroethane	72	Not Detected	290	Not Detected
Heptane	72	430	300	1700
Trichloroethene	72	Not Detected	390	Not Detected
1,2-Dichloropropane	72	Not Detected	330	Not Detected
1,4-Dioxane	290	Not Detected	1000	Not Detected
Bromodichloromethane	72	Not Detected	480	Not Detected
cis-1,3-Dichloropropene	72	Not Detected	330	Not Detected
4-Methyl-2-pentanone	72	Not Detected	290	Not Detected
Toluene	72	Not Detected	270	Not Detected
trans-1,3-Dichloropropene	72	Not Detected	330	Not Detected
1,1,2-Trichloroethane	72	Not Detected	390	Not Detected
Tetrachloroethene	72	Not Detected	490	Not Detected

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090117	Date of Collection: 8/25/10 2:25:00 PM		
Dil. Factor:	14.4	Date of Analysis: 9/1/10 04:56 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	290	Not Detected	1200	Not Detected
Dibromochloromethane	72	Not Detected	610	Not Detected
1,2-Dibromoethane (EDB)	72	Not Detected	550	Not Detected
Chlorobenzene	72	Not Detected	330	Not Detected
Ethyl Benzene	72	Not Detected	310	Not Detected
m,p-Xylene	72	Not Detected	310	Not Detected
o-Xylene	72	Not Detected	310	Not Detected
Styrene	72	Not Detected	310	Not Detected
Bromoform	72	Not Detected	740	Not Detected
Cumene	72	9.7 J	350	48 J
1,1,2,2-Tetrachloroethane	72	Not Detected	490	Not Detected
Propylbenzene	72	12 J	350	58 J
4-Ethyltoluene	72	12 J	350	61 J
1,3,5-Trimethylbenzene	72	Not Detected	350	Not Detected
1,2,4-Trimethylbenzene	72	11 J	350	54 J
1,3-Dichlorobenzene	72	Not Detected	430	Not Detected
1,4-Dichlorobenzene	72	Not Detected	430	Not Detected
alpha-Chlorotoluene	72	Not Detected	370	Not Detected
1,2-Dichlorobenzene	72	Not Detected	430	Not Detected
1,2,4-Trichlorobenzene	290	Not Detected	2100	Not Detected
Hexachlorobutadiene	290	Not Detected	3100	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090118	Date of Collection: 8/25/10 3:42:00 PM		
DH. Factor:	252	Date of Analysis: 9/1/10 05:24 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1300	Not Detected	6200	Not Detected
Freon 114	1300	Not Detected	8800	Not Detected
Chloromethane	5000	Not Detected	10000	Not Detected
Vinyl Chloride	1300	Not Detected	3200	Not Detected
1,3-Butadiene	1300	Not Detected	2800	Not Detected
Bromomethane	1300	Not Detected	4900	Not Detected
Chloroethane	1300	Not Detected	3300	Not Detected
Freon 11	1300	Not Detected	7100	Not Detected
Ethanol	5000	Not Detected	9500	Not Detected
Freon 113	1300	Not Detected	9600	Not Detected
1,1-Dichloroethene	1300	Not Detected	5000	Not Detected
Acetone	5000	Not Detected	12000	Not Detected
2-Propanol	5000	Not Detected	12000	Not Detected
Carbon Disulfide	1300	Not Detected	3900	Not Detected
3-Chloropropene	5000	Not Detected	16000	Not Detected
Methylene Chloride	1300	Not Detected	4400	Not Detected
Methyl tert-butyl ether	1300	Not Detected	4500	Not Detected
trans-1,2-Dichloroethene	1300	Not Detected	5000	Not Detected
Hexane	1300	350000	4400	1200000
1,1-Dichloroethane	1300	Not Detected	5100	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1300	Not Detected	3700	Not Detected
cis-1,2-Dichloroethene	1300	Not Detected	5000	Not Detected
Tetrahydrofuran	1300	Not Detected	3700	Not Detected
Chloroform	1300	Not Detected	6200	Not Detected
1,1,1-Trichloroethane	1300	Not Detected	6900	Not Detected
Cyclohexane	1300	250000	4300	880000
Carbon Tetrachloride	1300	Not Detected	7900	Not Detected
2,2,4-Trimethylpentane	1300	290000	5900	1400000
Benzene	1300	8900	4000	28000
1,2-Dichloroethane	1300	Not Detected	5100	Not Detected
Heptane	1300	100000	5200	420000
Trichloroethene	1300	Not Detected	6800	Not Detected
1,2-Dichloropropane	1300	Not Detected	5800	Not Detected
1,4-Dioxane	5000	Not Detected	18000	Not Detected
Bromodichloromethane	1300	Not Detected	8400	Not Detected
cis-1,3-Dichloropropene	1300	Not Detected	5700	Not Detected
4-Methyl-2-pentanone	1300	Not Detected	5200	Not Detected
Toluene	1300	Not Detected	4700	Not Detected
trans-1,3-Dichloropropene	1300	Not Detected	5700	Not Detected
1,1,2-Trichloroethane	1300	Not Detected	6900	Not Detected
Tetrachloroethene	1300	Not Detected	8500	Not Detected

Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090118	Date of Collection: 8/25/10 3:42:00 PM
Dil. Factor:	252	Date of Analysis: 9/1/10 05:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5000	Not Detected	21000	Not Detected
Dibromochloromethane	1300	Not Detected	11000	Not Detected
1,2-Dibromoethane (EDB)	1300	Not Detected	9700	Not Detected
Chlorobenzene	1300	Not Detected	5800	Not Detected
Ethyl Benzene	1300	1800	5500	7800
m,p-Xylene	1300	1300	5500	5600
o-Xylene	1300	Not Detected	5500	Not Detected
Styrene	1300	Not Detected	5400	Not Detected
Bromoform	1300	Not Detected	13000	Not Detected
Cumene	1300	720 J	6200	3600 J
1,1,2,2-Tetrachloroethane	1300	Not Detected	8600	Not Detected
Propylbenzene	1300	850 J	6200	4200 J
4-Ethyltoluene	1300	740 J	6200	3600 J
1,3,5-Trimethylbenzene	1300	310 J	6200	1500 J
1,2,4-Trimethylbenzene	1300	370 J	6200	1800 J
1,3-Dichlorobenzene	1300	Not Detected	7600	Not Detected
1,4-Dichlorobenzene	1300	Not Detected	7600	Not Detected
alpha-Chlorotoluene	1300	Not Detected	6500	Not Detected
1,2-Dichlorobenzene	1300	Not Detected	7600	Not Detected
1,2,4-Trichlorobenzene	5000	Not Detected	37000	Not Detected
Hexachlorobutadiene	5000	Not Detected	54000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083117	Date of Collection:	8/26/10 9:43:00 AM	
Dil. Factor:	2.64	Date of Analysis:	8/31/10 05:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.60 J	6.5	3.0 J
Freon 114	1.3	Not Detected	9.2	Not Detected
Chloromethane	5.3	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	2.9	Not Detected
Bromomethane	1.3	Not Detected	5.1	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.28 J	7.4	1.6 J
Ethanol	5.3	3.7 J	9.9	7.0 J
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Acetone	5.3	11	12	26
2-Propanol	5.3	2.6 J	13	6.4 J
Carbon Disulfide	1.3	0.91 J	4.1	2.8 J
3-Chloropropene	5.3	Not Detected	16	Not Detected
Methylene Chloride	1.3	0.66 J	4.6	2.3 J
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Hexane	1.3	4.6	4.6	16
1,1-Dichloroethane	1.3	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	2.0	3.9	6.0
cis-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.9	Not Detected
Chloroform	1.3	Not Detected	6.4	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Cyclohexane	1.3	4.5	4.5	16
Carbon Tetrachloride	1.3	Not Detected	8.3	Not Detected
2,2,4-Trimethylpentane	1.3	7.2	6.2	34
Benzene	1.3	3.7	4.2	12
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Heptane	1.3	1.1 J	5.4	4.4 J
Trichloroethene	1.3	Not Detected	7.1	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.1	Not Detected
1,4-Dioxane	5.3	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	8.8	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.4	Not Detected
Toluene	1.3	0.31 J	5.0	1.2 J
trans-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Tetrachloroethene	1.3	Not Detected	9.0	Not Detected

Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083117	Date of Collection: 8/26/10 9:43:00 AM		
Dil. Factor:	2.64	Date of Analysis: 8/31/10 05:20 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.3	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.1	Not Detected
Ethyl Benzene	1.3	Not Detected	5.7	Not Detected
m,p-Xylene	1.3	0.16 J	5.7	0.71 J
o-Xylene	1.3	Not Detected	5.7	Not Detected
Styrene	1.3	Not Detected	5.6	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.5	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.1	Not Detected
Propylbenzene	1.3	Not Detected	6.5	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.5	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,2,4-Trichlorobenzene	5.3	Not Detected	39	Not Detected
Hexachlorobutadiene	5.3	Not Detected	56	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

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

Client Sample ID: VMP-7-13.5-082610

Lab ID#: 1008677A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090119	Date of Collection:	8/26/10 10:44:00 AM	
Dil. Factor:	5.78	Date of Analysis:	9/1/10 06:19 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	29	Not Detected	140	Not Detected
Freon 114	29	Not Detected	200	Not Detected
Chloromethane	120	Not Detected	240	Not Detected
Vinyl Chloride	29	Not Detected	74	Not Detected
1,3-Butadiene	29	Not Detected	64	Not Detected
Bromomethane	29	Not Detected	110	Not Detected
Chloroethane	29	Not Detected	76	Not Detected
Freon 11	29	Not Detected	160	Not Detected
Ethanol	120	Not Detected	220	Not Detected
Freon 113	29	Not Detected	220	Not Detected
1,1-Dichloroethene	29	Not Detected	110	Not Detected
Acetone	120	Not Detected	270	Not Detected
2-Propanol	120	Not Detected	280	Not Detected
Carbon Disulfide	29	Not Detected	90	Not Detected
3-Chloropropene	120	Not Detected	360	Not Detected
Methylene Chloride	29	Not Detected	100	Not Detected
Methyl tert-butyl ether	29	Not Detected	100	Not Detected
trans-1,2-Dichloroethene	29	Not Detected	110	Not Detected
Hexane	29	10 J	100	35 J
1,1-Dichloroethane	29	Not Detected	120	Not Detected
2-Butanone (Methyl Ethyl Ketone)	29	Not Detected	85	Not Detected
cis-1,2-Dichloroethene	29	Not Detected	110	Not Detected
Tetrahydrofuran	29	Not Detected	85	Not Detected
Chloroform	29	Not Detected	140	Not Detected
1,1,1-Trichloroethane	29	Not Detected	160	Not Detected
Cyclohexane	29	Not Detected	99	Not Detected
Carbon Tetrachloride	29	Not Detected	180	Not Detected
2,2,4-Trimethylpentane	29	50000 E-5 J	140	240000 E-5 J
Benzene	29	47	92	150
1,2-Dichloroethane	29	Not Detected	120	Not Detected
Heptane	29	Not Detected	120	Not Detected
Trichloroethene	29	Not Detected	160	Not Detected
1,2-Dichloropropane	29	Not Detected	130	Not Detected
1,4-Dioxane	120	Not Detected	420	Not Detected
Bromodichloromethane	29	Not Detected	190	Not Detected
cis-1,3-Dichloropropene	29	Not Detected	130	Not Detected
4-Methyl-2-pentanone	29	Not Detected	120	Not Detected
Toluene	29	Not Detected	110	Not Detected
trans-1,3-Dichloropropene	29	Not Detected	130	Not Detected
1,1,2-Trichloroethane	29	Not Detected	160	Not Detected
Tetrachloroethene	29	Not Detected	200	Not Detected

Client Sample ID: VMP-7-13.5-082610

Lab ID#: 1008677A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090119	Date of Collection:	8/26/10 10:44:00 AM	
Dil. Factor:	5.78	Date of Analysis:	9/1/10 06:19 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	120	Not Detected	470	Not Detected
Dibromochloromethane	29	Not Detected	250	Not Detected
1,2-Dibromoethane (EDB)	29	Not Detected	220	Not Detected
Chlorobenzene	29	Not Detected	130	Not Detected
Ethyl Benzene	29	Not Detected	120	Not Detected
m,p-Xylene	29	Not Detected	120	Not Detected
o-Xylene	29	Not Detected	120	Not Detected
Styrene	29	Not Detected	120	Not Detected
Bromoform	29	Not Detected	300	Not Detected
Cumene	29	3.0 J	140	15 J
1,1,2,2-Tetrachloroethane	29	Not Detected	200	Not Detected
Propylbenzene	29	Not Detected	140	Not Detected
4-Ethyltoluene	29	Not Detected	140	Not Detected
1,3,5-Trimethylbenzene	29	Not Detected	140	Not Detected
1,2,4-Trimethylbenzene	29	Not Detected	140	Not Detected
1,3-Dichlorobenzene	29	Not Detected	170	Not Detected
1,4-Dichlorobenzene	29	Not Detected	170	Not Detected
alpha-Chlorotoluene	29	Not Detected	150	Not Detected
1,2-Dichlorobenzene	29	Not Detected	170	Not Detected
1,2,4-Trichlorobenzene	120	Not Detected	860	Not Detected
Hexachlorobutadiene	120	Not Detected	1200	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083116	Date of Collection: 8/26/10 12:54:00 PM		
Dil. Factor:	2.28	Date of Analysis: 8/31/10 04:57 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.61 J	5.6	3.0 J
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	4.6	Not Detected	9.4	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Bromomethane	1.1	Not Detected	4.4	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Ethanol	4.6	7.9	8.6	15
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	4.6	12	11	29
2-Propanol	4.6	5.0	11	12
Carbon Disulfide	1.1	0.61 J	3.6	1.9 J
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	1.1	2.1	4.0	7.2
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	4.6	4.0	16
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.8	3.4	5.3
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.4	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	3.1	3.9	11
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	1.1	6.2	5.3	29
Benzene	1.1	2.7	3.6	8.8
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Heptane	1.1	1.3	4.7	5.5
Trichloroethene	1.1	Not Detected	6.1	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	2.2 J	16	8.0 J
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	0.95 J	4.3	3.6 J
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	0.34 J	7.7	2.3 J

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083116	Date of Collection: 8/26/10 12:54:00 PM		
Dil. Factor:	2.28	Date of Analysis: 8/31/10 04:57 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	4.6	Not Detected	19	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	0.11 J	4.9	0.48 J
m,p-Xylene	1.1	0.31 J	5.0	1.3 J
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
Cumene	1.1	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: VMP-9-11.5-082610

Lab ID#: 1008677A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090122	Date of Collection:	8/26/10 2:13:00 PM	
Dil. Factor:	5.14	Date of Analysis:	9/1/10 08:02 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	26	Not Detected	130	Not Detected
Freon 114	26	Not Detected	180	Not Detected
Chloromethane	100	Not Detected	210	Not Detected
Vinyl Chloride	26	Not Detected	66	Not Detected
1,3-Butadiene	26	Not Detected	57	Not Detected
Bromomethane	26	Not Detected	100	Not Detected
Chloroethane	26	Not Detected	68	Not Detected
Freon 11	26	Not Detected	140	Not Detected
Ethanol	100	Not Detected	190	Not Detected
Freon 113	26	Not Detected	200	Not Detected
1,1-Dichloroethene	26	Not Detected	100	Not Detected
Acetone	100	Not Detected	240	Not Detected
2-Propanol	100	Not Detected	250	Not Detected
Carbon Disulfide	26	Not Detected	80	Not Detected
3-Chloropropene	100	Not Detected	320	Not Detected
Methylene Chloride	26	Not Detected	89	Not Detected
Methyl tert-butyl ether	26	Not Detected	93	Not Detected
trans-1,2-Dichloroethene	26	Not Detected	100	Not Detected
Hexane	26	Not Detected	90	Not Detected
1,1-Dichloroethane	26	Not Detected	100	Not Detected
2-Butanone (Methyl Ethyl Ketone)	26	Not Detected	76	Not Detected
cis-1,2-Dichloroethene	26	Not Detected	100	Not Detected
Tetrahydrofuran	26	Not Detected	76	Not Detected
Chloroform	26	Not Detected	120	Not Detected
1,1,1-Trichloroethane	26	Not Detected	140	Not Detected
Cyclohexane	26	350	88	1200
Carbon Tetrachloride	26	Not Detected	160	Not Detected
2,2,4-Trimethylpentane	26	21000	120	98000
Benzene	26	50	82	160
1,2-Dichloroethane	26	Not Detected	100	Not Detected
Heptane	26	Not Detected	100	Not Detected
Trichloroethene	26	Not Detected	140	Not Detected
1,2-Dichloropropane	26	Not Detected	120	Not Detected
1,4-Dioxane	100	Not Detected	370	Not Detected
Bromodichloromethane	26	Not Detected	170	Not Detected
cis-1,3-Dichloropropene	26	Not Detected	120	Not Detected
4-Methyl-2-pentanone	26	Not Detected	100	Not Detected
Toluene	26	Not Detected	97	Not Detected
trans-1,3-Dichloropropene	26	Not Detected	120	Not Detected
1,1,2-Trichloroethane	26	Not Detected	140	Not Detected
Tetrachloroethene	26	Not Detected	170	Not Detected

Client Sample ID: VMP-9-11.5-082610

Lab ID#: 1008677A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090122	Date of Collection: 8/26/10 2:13:00 PM
Dil. Factor:	5.14	Date of Analysis: 9/1/10 08:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	100	Not Detected	420	Not Detected
Dibromochloromethane	26	Not Detected	220	Not Detected
1,2-Dibromoethane (EDB)	26	Not Detected	200	Not Detected
Chlorobenzene	26	Not Detected	120	Not Detected
Ethyl Benzene	26	Not Detected	110	Not Detected
m,p-Xylene	26	Not Detected	110	Not Detected
o-Xylene	26	Not Detected	110	Not Detected
Styrene	26	Not Detected	110	Not Detected
Bromoform	26	Not Detected	260	Not Detected
Cumene	26	Not Detected	130	Not Detected
1,1,2,2-Tetrachloroethane	26	Not Detected	180	Not Detected
Propylbenzene	26	Not Detected	130	Not Detected
4-Ethyltoluene	26	Not Detected	130	Not Detected
1,3,5-Trimethylbenzene	26	Not Detected	130	Not Detected
1,2,4-Trimethylbenzene	26	Not Detected	130	Not Detected
1,3-Dichlorobenzene	26	Not Detected	150	Not Detected
1,4-Dichlorobenzene	26	Not Detected	150	Not Detected
alpha-Chlorotoluene	26	Not Detected	130	Not Detected
1,2-Dichlorobenzene	26	Not Detected	150	Not Detected
1,2,4-Trichlorobenzene	100	Not Detected	760	Not Detected
Hexachlorobutadiene	100	Not Detected	1100	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP-9-25.5-082610

Lab ID#: 1008677A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090125	Date of Collection: 8/26/10 3:18:00 PM		
Dil. Factor:	40.3	Date of Analysis: 9/1/10 09:23 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	200	Not Detected	1000	Not Detected
Freon 114	200	Not Detected	1400	Not Detected
Chloromethane	810	Not Detected	1700	Not Detected
Vinyl Chloride	200	Not Detected	520	Not Detected
1,3-Butadiene	200	Not Detected	440	Not Detected
Bromomethane	200	Not Detected	780	Not Detected
Chloroethane	200	Not Detected	530	Not Detected
Freon 11	200	Not Detected	1100	Not Detected
Ethanol	810	Not Detected	1500	Not Detected
Freon 113	200	Not Detected	1500	Not Detected
1,1-Dichloroethene	200	Not Detected	800	Not Detected
Acetone	810	Not Detected	1900	Not Detected
2-Propanol	810	Not Detected	2000	Not Detected
Carbon Disulfide	200	Not Detected	630	Not Detected
3-Chloropropene	810	Not Detected	2500	Not Detected
Methylene Chloride	200	Not Detected	700	Not Detected
Methyl tert-butyl ether	200	Not Detected	730	Not Detected
trans-1,2-Dichloroethene	200	Not Detected	800	Not Detected
Hexane	200	920	710	3200
1,1-Dichloroethane	200	Not Detected	820	Not Detected
2-Butanone (Methyl Ethyl Ketone)	200	Not Detected	590	Not Detected
cis-1,2-Dichloroethene	200	Not Detected	800	Not Detected
Tetrahydrofuran	200	Not Detected	590	Not Detected
Chloroform	200	Not Detected	980	Not Detected
1,1,1-Trichloroethane	200	Not Detected	1100	Not Detected
Cyclohexane	200	9000	690	31000
Carbon Tetrachloride	200	Not Detected	1300	Not Detected
2,2,4-Trimethylpentane	200	140000	940	650000
Benzene	200	1000	640	3200
1,2-Dichloroethane	200	Not Detected	820	Not Detected
Heptane	200	270	820	1100
Trichloroethene	200	Not Detected	1100	Not Detected
1,2-Dichloropropane	200	Not Detected	930	Not Detected
1,4-Dioxane	810	Not Detected	2900	Not Detected
Bromodichloromethane	200	Not Detected	1400	Not Detected
cis-1,3-Dichloropropene	200	Not Detected	910	Not Detected
4-Methyl-2-pentanone	200	Not Detected	820	Not Detected
Toluene	200	Not Detected	760	Not Detected
trans-1,3-Dichloropropene	200	Not Detected	910	Not Detected
1,1,2-Trichloroethane	200	Not Detected	1100	Not Detected
Tetrachloroethene	200	Not Detected	1400	Not Detected

Client Sample ID: VMP-9-25.5-082610

Lab ID#: 1008677A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090125	Date of Collection: 8/26/10 3:18:00 PM		
Dil. Factor:	40.3	Date of Analysis: 9/1/10 09:23 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	810	Not Detected	3300	Not Detected
Dibromochloromethane	200	Not Detected	1700	Not Detected
1,2-Dibromoethane (EDB)	200	Not Detected	1500	Not Detected
Chlorobenzene	200	Not Detected	930	Not Detected
Ethyl Benzene	200	Not Detected	870	Not Detected
m,p-Xylene	200	Not Detected	870	Not Detected
o-Xylene	200	Not Detected	870	Not Detected
Styrene	200	Not Detected	860	Not Detected
Bromoform	200	Not Detected	2100	Not Detected
Cumene	200	26 J	990	130 J
1,1,2,2-Tetrachloroethane	200	Not Detected	1400	Not Detected
Propylbenzene	200	28 J	990	140 J
4-Ethyltoluene	200	Not Detected	990	Not Detected
1,3,5-Trimethylbenzene	200	Not Detected	990	Not Detected
1,2,4-Trimethylbenzene	200	38 J	990	190 J
1,3-Dichlorobenzene	200	Not Detected	1200	Not Detected
1,4-Dichlorobenzene	200	Not Detected	1200	Not Detected
alpha-Chlorotoluene	200	Not Detected	1000	Not Detected
1,2-Dichlorobenzene	200	Not Detected	1200	Not Detected
1,2,4-Trichlorobenzene	810	Not Detected	6000	Not Detected
Hexachlorobutadiene	810	Not Detected	8600	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677A-10A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090126	Date of Collection: 8/26/10 3:18:00 PM		
Dil. Factor:	43.2	Date of Analysis: 9/1/10 09:45 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	220	Not Detected	1100	Not Detected
Freon 114	220	Not Detected	1500	Not Detected
Chloromethane	860	Not Detected	1800	Not Detected
Vinyl Chloride	220	Not Detected	550	Not Detected
1,3-Butadiene	220	Not Detected	480	Not Detected
Bromomethane	220	Not Detected	840	Not Detected
Chloroethane	220	Not Detected	570	Not Detected
Freon 11	220	Not Detected	1200	Not Detected
Ethanol	860	Not Detected	1600	Not Detected
Freon 113	220	Not Detected	1600	Not Detected
1,1-Dichloroethene	220	Not Detected	860	Not Detected
Acetone	860	Not Detected	2000	Not Detected
2-Propanol	860	Not Detected	2100	Not Detected
Carbon Disulfide	220	Not Detected	670	Not Detected
3-Chloropropene	860	Not Detected	2700	Not Detected
Methylene Chloride	220	Not Detected	750	Not Detected
Methyl tert-butyl ether	220	Not Detected	780	Not Detected
trans-1,2-Dichloroethene	220	Not Detected	860	Not Detected
Hexane	220	900	760	3200
1,1-Dichloroethane	220	Not Detected	870	Not Detected
2-Butanone (Methyl Ethyl Ketone)	220	Not Detected	640	Not Detected
cis-1,2-Dichloroethene	220	Not Detected	860	Not Detected
Tetrahydrofuran	220	Not Detected	640	Not Detected
Chloroform	220	Not Detected	1000	Not Detected
1,1,1-Trichloroethane	220	Not Detected	1200	Not Detected
Cyclohexane	220	9200	740	32000
Carbon Tetrachloride	220	Not Detected	1400	Not Detected
2,2,4-Trimethylpentane	220	140000	1000	660000
Benzene	220	1000	690	3300
1,2-Dichloroethane	220	Not Detected	870	Not Detected
Heptane	220	260	880	1100
Trichloroethene	220	Not Detected	1200	Not Detected
1,2-Dichloropropane	220	Not Detected	1000	Not Detected
1,4-Dioxane	860	Not Detected	3100	Not Detected
Bromodichloromethane	220	Not Detected	1400	Not Detected
cis-1,3-Dichloropropene	220	Not Detected	980	Not Detected
4-Methyl-2-pentanone	220	Not Detected	880	Not Detected
Toluene	220	Not Detected	810	Not Detected
trans-1,3-Dichloropropene	220	Not Detected	980	Not Detected
1,1,2-Trichloroethane	220	Not Detected	1200	Not Detected
Tetrachloroethene	220	Not Detected	1500	Not Detected

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677A-10A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090126	Date of Collection:	8/26/10 3:18:00 PM	
Dil. Factor:	43.2	Date of Analysis:	9/1/10 09:45 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	860	Not Detected	3500	Not Detected
Dibromochloromethane	220	Not Detected	1800	Not Detected
1,2-Dibromoethane (EDB)	220	Not Detected	1600	Not Detected
Chlorobenzene	220	Not Detected	990	Not Detected
Ethyl Benzene	220	Not Detected	940	Not Detected
m,p-Xylene	220	Not Detected	940	Not Detected
o-Xylene	220	Not Detected	940	Not Detected
Styrene	220	Not Detected	920	Not Detected
Bromoform	220	Not Detected	2200	Not Detected
Cumene	220	26 J	1100	130 J
1,1,2,2-Tetrachloroethane	220	Not Detected	1500	Not Detected
Propylbenzene	220	Not Detected	1100	Not Detected
4-Ethyltoluene	220	Not Detected	1100	Not Detected
1,3,5-Trimethylbenzene	220	Not Detected	1100	Not Detected
1,2,4-Trimethylbenzene	220	34 J	1100	170 J
1,3-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,4-Dichlorobenzene	220	Not Detected	1300	Not Detected
alpha-Chlorotoluene	220	Not Detected	1100	Not Detected
1,2-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,2,4-Trichlorobenzene	860	Not Detected	6400	Not Detected
Hexachlorobutadiene	860	Not Detected	9200	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: Lab Blank

Lab ID#: 1008677A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083107a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 8/31/10 10:30 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	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
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	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
1,4-Dioxane	2.0	Not Detected	7.2	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

Client Sample ID: Lab Blank

Lab ID#: 1008677A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083107a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 8/31/10 10:30 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	0.080 J	2.4	0.39 J
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	0.086 J	2.4	0.42 J
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	0.12 J	2.4	0.59 J
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	0.11 J	3.0	0.69 J
1,4-Dichlorobenzene	0.50	0.12 J	3.0	0.74 J
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	0.094 J	3.0	0.57 J
1,2,4-Trichlorobenzene	2.0	0.32 J	15	2.3 J
Hexachlorobutadiene	2.0	0.20 J	21	2.1 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: Lab Blank

Lab ID#: 1008677A-11B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090107d	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/1/10 11:33 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1008677A-11B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090107d	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/1/10 11:33 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: CCV

Lab ID#: 1008677A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 08:20 AM

Compound	%Recovery
Freon 12	93
Freon 114	86
Chloromethane	83
Vinyl Chloride	93
1,3-Butadiene	81
Bromomethane	80
Chloroethane	84
Freon 11	88
Ethanol	96
Freon 113	84
1,1-Dichloroethene	90
Acetone	86
2-Propanol	88
Carbon Disulfide	89
3-Chloropropene	86
Methylene Chloride	88
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	92
Hexane	84
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	87
Tetrahydrofuran	86
Chloroform	88
1,1,1-Trichloroethane	86
Cyclohexane	84
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	83
Benzene	82
1,2-Dichloroethane	86
Heptane	84
Trichloroethene	80
1,2-Dichloropropane	80
1,4-Dioxane	81
Bromodichloromethane	86
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	86
Toluene	83
trans-1,3-Dichloropropene	89
1,1,2-Trichloroethane	83
Tetrachloroethene	83

Client Sample ID: CCV

Lab ID#: 1008677A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 08:20 AM

Compound	%Recovery
2-Hexanone	90
Dibromochloromethane	89
1,2-Dibromoethane (EDB)	86
Chlorobenzene	82
Ethyl Benzene	85
m,p-Xylene	86
o-Xylene	85
Styrene	88
Bromoform	90
Cumene	87
1,1,2,2-Tetrachloroethane	83
Propylbenzene	86
4-Ethyltoluene	84
1,3,5-Trimethylbenzene	80
1,2,4-Trimethylbenzene	79
1,3-Dichlorobenzene	82
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	87
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 1008677A-12B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/1/10 08:36 AM

Compound	%Recovery
Freon 12	90
Freon 114	103
Chloromethane	100
Vinyl Chloride	102
1,3-Butadiene	101
Bromomethane	99
Chloroethane	103
Freon 11	94
Ethanol	104
Freon 113	105
1,1-Dichloroethene	94
Acetone	107
2-Propanol	102
Carbon Disulfide	104
3-Chloropropene	98
Methylene Chloride	99
Methyl tert-butyl ether	96
trans-1,2-Dichloroethene	105
Hexane	101
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	94
Tetrahydrofuran	93
Chloroform	94
1,1,1-Trichloroethane	92
Cyclohexane	97
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	97
Benzene	104
1,2-Dichloroethane	88
Heptane	102
Trichloroethene	99
1,2-Dichloropropane	103
1,4-Dioxane	98
Bromodichloromethane	97
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	98
Toluene	104
trans-1,3-Dichloropropene	93
1,1,2-Trichloroethane	102
Tetrachloroethene	108

Client Sample ID: CCV

Lab ID#: 1008677A-12B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/1/10 08:36 AM

Compound	%Recovery
2-Hexanone	99
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	104
Chlorobenzene	104
Ethyl Benzene	100
m,p-Xylene	102
o-Xylene	101
Styrene	110
Bromoform	108
Cumene	109
1,1,2,2-Tetrachloroethane	103
Propylbenzene	104
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	119
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	71
Hexachlorobutadiene	80

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1008677A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 08:51 AM

Compound	%Recovery
Freon 12	108
Freon 114	100
Chloromethane	93
Vinyl Chloride	110
1,3-Butadiene	96
Bromomethane	93
Chloroethane	112
Freon 11	96
Ethanol	101
Freon 113	82
1,1-Dichloroethene	91
Acetone	94
2-Propanol	97
Carbon Disulfide	101
3-Chloropropene	93
Methylene Chloride	92
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	101
Hexane	89
1,1-Dichloroethane	88
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	92
Tetrahydrofuran	93
Chloroform	93
1,1,1-Trichloroethane	92
Cyclohexane	90
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	91
Benzene	91
1,2-Dichloroethane	94
Heptane	90
Trichloroethene	90
1,2-Dichloropropane	90
1,4-Dioxane	96
Bromodichloromethane	95
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	101
Toluene	88
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	91
Tetrachloroethene	89



Client Sample ID: LCS

Lab ID#: 1008677A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3083104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 08:51 AM

Compound	%Recovery
2-Hexanone	102
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	96
Chlorobenzene	89
Ethyl Benzene	94
m,p-Xylene	94
o-Xylene	93
Styrene	97
Bromoform	102
Cumene	94
1,1,2,2-Tetrachloroethane	92
Propylbenzene	93
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	87
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1008677A-13B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/1/10 09:25 AM

Compound	%Recovery
Freon 12	93
Freon 114	104
Chloromethane	102
Vinyl Chloride	103
1,3-Butadiene	100
Bromomethane	104
Chloroethane	105
Freon 11	94
Ethanol	92
Freon 113	95
1,1-Dichloroethene	84
Acetone	99
2-Propanol	89
Carbon Disulfide	104
3-Chloropropene	96
Methylene Chloride	89
Methyl tert-butyl ether	97
trans-1,2-Dichloroethene	105
Hexane	100
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	92
Tetrahydrofuran	93
Chloroform	92
1,1,1-Trichloroethane	91
Cyclohexane	98
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	98
Benzene	104
1,2-Dichloroethane	86
Heptane	102
Trichloroethene	100
1,2-Dichloropropane	103
1,4-Dioxane	99
Bromodichloromethane	98
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	96
Toluene	99
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	104
Tetrachloroethene	106

Client Sample ID: LCS

Lab ID#: 1008677A-13B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/1/10 09:25 AM

Compound	%Recovery
2-Hexanone	98
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	108
Chlorobenzene	104
Ethyl Benzene	102
m,p-Xylene	105
o-Xylene	104
Styrene	114
Bromoform	112
Cumene	108
1,1,2,2-Tetrachloroethane	106
Propylbenzene	105
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	109
1,4-Dichlorobenzene	113
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	114
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



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

Page 1 of 1

Project Manager (Signature) Address Michael Miller
Collected by: (Print and Sign) Michael Miller Email thomson@airtoxics.com
Company URS Corporation State MO Zip 63
Address 1001 Highway 100 City St. Louis
Phone 314 429-0100 Fax 314 429-0462

Project Info:
P.O. # _____
Project # _____
Project Name Poston Disposal Plant

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		Pressurized by:
						Initial	Final	
01A	VMP-1-5-082510	97	08/26/10	0545/1032	As per TO-15 ASTM D-1946 R16	30	7	
02A	VMP-1-8-5-082510	1732	08/26/10	1058/1135	"	30	6.5	
03A	VMP-4-5-082510	3756	08/26/10	1356/1425	"	30	9	
04A	VMP-4-12-082510	3903	08/26/10	1504/1542	"	30	6	
05A	VMP-7-5-082610	1356	08/26/10	0907/0943	"	29	8	
06A	VMP-7-13-5-082610	154	08/26/10	1014/1044	"	30	10	
07A	VMP-9-5-082610	620	08/26/10	1234/1254	"	30	4	
08A	VMP-9-11-5-082610	1038	08/26/10	1331/1413	"	30	7	
09A	VMP-9-25-5-082610	3032	08/26/10	1441/1518	"	30	5	
10A	VMP-9-25-5-082610-DUP	3147	08/26/10	1441/1518	"	30	6	

Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730
Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730
Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730

Notes:
- 14 Day hold time
- Report Results between MDL and RL
Level IV ELEV

Shipper Name FEDEX Air Bill # 1008677
Temp (°C) 14A Condition Good Custody Seals Intact? Yes No (None) Work Order # 1008677

9/10/2010
Mr. Mike Miller
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1008677B

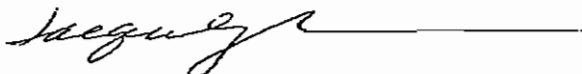
Dear Mr. Mike Miller

The following report includes the data for the above referenced project for sample(s) received on 8/27/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

WORK ORDER #: 1008677B

Work Order Summary

CLIENT:	Mr. Mike Miller URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-566-3073	P.O. #	21562289.00011
FAX:		PROJECT #	Roxana Dissolved Phase
DATE RECEIVED:	08/27/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/10/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-1-5-082510 ✓	Modified ASTM D-1946	6.6 "Hg	15 psi
02A	VMP-1-8.5-082510 ✓	Modified ASTM D-1946	6.4 "Hg	15 psi
03A	VMP-4-5-082510 ✓	Modified ASTM D-1946	9.0 "Hg	15 psi
04A	VMP-4-12-082510 ✓	Modified ASTM D-1946	6.0 "Hg	15 psi
05A	VMP-7-5-082610 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
06A	VMP-7-13.5-082610 ✓	Modified ASTM D-1946	9.0 "Hg	15 psi
07A	VMP-9-5-082610 ✓	Modified ASTM D-1946	3.4 "Hg	15 psi
08A	VMP-9-11.5-082610 ✓	Modified ASTM D-1946	6.4 "Hg	15 psi
09A	VMP-9-25.5-082610 ✓	Modified ASTM D-1946	5.0 "Hg	15 psi
10A	VMP-9-25.5-082610-DUP ✓	Modified ASTM D-1946	6.6 "Hg	15 psi
11A	Lab Blank	Modified ASTM D-1946	NA	NA
11B	Lab Blank	Modified ASTM D-1946	NA	NA
12A	LCS	Modified ASTM D-1946	NA	NA
12AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sandra A. Freeman

Laboratory Director

DATE: 09/10/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1008677B**

Ten 1 Liter Summa Canister samples were received on August 27, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-1-5-082510

Lab ID#: 1008677B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	17
Nitrogen	0.26	79
Methane	0.00026	0.0032
Carbon Dioxide	0.026	3.0
Helium	0.13	0.95

Client Sample ID: VMP-1-8.5-082510

Lab ID#: 1008677B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	13
Nitrogen	0.26	78
Methane	0.00026	0.0032
Carbon Dioxide	0.026	4.8
Helium	0.13	4.1

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.29	2.1
Nitrogen	0.29	83
Methane	0.00029	1.7
Carbon Dioxide	0.029	13
Ethane	0.0029	0.00050 J
Helium	0.14	0.026 J

Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677B-04A

Compound	Rpt. Limit (%)	Amount (%)

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	1.2
Nitrogen	0.25	66
Methane	0.00025	17
Carbon Dioxide	0.025	14
Ethane	0.0025	0.0039
Helium	0.13	0.042 J

Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	16
Nitrogen	0.26	79
Methane	0.00026	0.00020 J
Carbon Dioxide	0.026	2.7
Helium	0.13	1.9

Client Sample ID: VMP-7-13.5-082610

Lab ID#: 1008677B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.29	1.5
Nitrogen	0.29	82
Methane	0.00029	0.57
Carbon Dioxide	0.029	16
Ethane	0.0029	0.000083 J
Helium	0.14	0.041 J

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677B-07A

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	9.1
Nitrogen	0.23	81
Methane	0.00023	0.000061 J
Carbon Dioxide	0.023	10
Helium	0.11	0.012 J

Client Sample ID: VMP-9-11.5-082610

Lab ID#: 1008677B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.4
Nitrogen	0.26	82
Methane	0.00026	1.8
Carbon Dioxide	0.026	15
Ethane	0.0026	0.00015 J
Helium	0.13	0.042 J

Client Sample ID: VMP-9-25.5-082610

Lab ID#: 1008677B-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.7
Nitrogen	0.24	80
Methane	0.00024	4.3
Carbon Dioxide	0.024	14
Ethane	0.0024	0.00042 J
Helium	0.12	0.012 J

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677B-10A

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677B-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.5
Nitrogen	0.26	80
Methane	0.00026	4.3
Carbon Dioxide	0.026	14
Ethane	0.0026	0.00040 J
Helium	0.13	0.040 J''

Client Sample ID: VMP-1-5-082510

Lab ID#: 1008677B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083116	Date of Collection: 8/25/10 10:22:00 AM
Dil. Factor:	2.59	Date of Analysis: 8/31/10 02:19 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	17
Nitrogen	0.26	79
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.0032
Carbon Dioxide	0.026	3.0
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	0.95

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-1-8.5-082510

Lab ID#: 1008677B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083114	Date of Collection: 8/25/10 11:35:00 AM
Dil. Factor:	2.57	Date of Analysis: 8/31/10 01:22 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	13
Nitrogen	0.26	78
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.0032
Carbon Dioxide	0.026	4.8
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	4.1

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-4-5-082510

Lab ID#: 1008677B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083118	Date of Collection:	8/25/10 2:25:00 PM
Dil. Factor:	2.89	Date of Analysis:	8/31/10 03:12 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.29	2.1	
Nitrogen	0.29	83	
Carbon Monoxide	0.029	Not Detected	
Methane	0.00029	1.7	
Carbon Dioxide	0.029	13	
Ethane	0.0029	0.00050 J	
Ethene	0.0029	Not Detected	
Helium	0.14	0.026 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-4-12-082510

Lab ID#: 1008677B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083119	Date of Collection:	8/25/10 3:42:00 PM
Dil. Factor:	2.52	Date of Analysis:	8/31/10 03:53 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	1.2	
Nitrogen	0.25	66	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00025	17	
Carbon Dioxide	0.025	14	
Ethane	0.0025	0.0039	
Ethene	0.0025	Not Detected	
Helium	0.13	0.042 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-7-5-082610

Lab ID#: 1008677B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083115	Date of Collection: 8/26/10 9:43:00 AM
Dil. Factor:	2.64	Date of Analysis: 8/31/10 01:57 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	16
Nitrogen	0.26	79
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.00020 J
Carbon Dioxide	0.026	2.7
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	1.9

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-7-13.5-082610

Lab ID#: 1008677B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083122	Date of Collection:	8/26/10 10:44:00 AM
Dil. Factor:	2.89	Date of Analysis:	8/31/10 06:07 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.29	1.5	
Nitrogen	0.29	82	
Carbon Monoxide	0.029	Not Detected	
Methane	0.00029	0.57	
Carbon Dioxide	0.029	16	
Ethane	0.0029	0.000083 J	
Ethene	0.0029	Not Detected	
Helium	0.14	0.041 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-9-5-082610

Lab ID#: 1008677B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083117	Date of Collection:	8/26/10 12:54:00 PM
Dil. Factor:	2.28	Date of Analysis:	8/31/10 02:42 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.23	9.1	
Nitrogen	0.23	81	
Carbon Monoxide	0.023	Not Detected	
Methane	0.00023	0.000061 J	
Carbon Dioxide	0.023	10	
Ethane.	0.0023	Not Detected	
Ethene	0.0023	Not Detected	
Helium	0.11	0.012 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-9-11.5-082610

Lab ID#: 1008677B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083123	Date of Collection: 8/26/10 2:13:00 PM
Dil. Factor:	2.57	Date of Analysis: 8/31/10 06:33 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.4
Nitrogen	0.26	82
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	1.8
Carbon Dioxide	0.026	15
Ethane	0.0026	0.00015 J
Ethene	0.0026	Not Detected
Helium	0.13	0.042 J

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-9-25.5-082610

Lab ID#: 1008677B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083124	Date of Collection:	8/26/10 3:18:00 PM
Dil. Factor:	2.42	Date of Analysis:	8/31/10 07:03 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	1.7	
Nitrogen	0.24	80	
Carbon Monoxide	0.024	Not Detected	
Methane	0.00024	4.3	
Carbon Dioxide	0.024	14	
Ethane	0.0024	0.00042 J	
Ethene	0.0024	Not Detected	
Helium	0.12	0.012 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-9-25.5-082610-DUP

Lab ID#: 1008677B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083126	Date of Collection:	8/26/10 3:18:00 PM
Dil. Factor:	2.59	Date of Analysis:	8/31/10 08:32 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	1.5	
Nitrogen	0.26	80	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	4.3	
Carbon Dioxide	0.026	14	
Ethane	0.0026	0.00040 J	
Ethene	0.0026	Not Detected	
Helium	0.13	0.040 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: Lab Blank

Lab ID#: 1008677B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083105a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/31/10 09:07 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.10	0.019 J	
Nitrogen	0.10	0.082 J	
Carbon Monoxide	0.010	Not Detected	
Methane	0.00010	Not Detected	
Carbon Dioxide	0.010	Not Detected	
Ethane	0.0010	Not Detected	
Ethene	0.0010	Not Detected	

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1008677B-11B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083104ba	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 08:45 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1008677B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 07:35 AM

Compound	%Recovery
Oxygen	96
Nitrogen	96
Carbon Monoxide	95
Methane	95
Carbon Dioxide	95
Ethane	96
Ethene	96
Helium	88

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 1008677B-12AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9083128	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/31/10 09:50 PM

Compound	%Recovery
Oxygen	95
Nitrogen	96
Carbon Monoxide	94
Methane	96
Carbon Dioxide	95
Ethane	98
Ethene	97
Helium	88

Container Type: NA - Not Applicable



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

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager (Signature) Address Michael Miller
Collected by: (Print and Sign) Michael Miller Email thomas@airtoxics.com
Company URS Corporation State MO Zip 63103
Address 1001 Highway Plaza City St. Louis
Phone 314 429-0100 Fax 314 429-0462

Project Info:
P.O. # _____
Project # _____
Project Name Boysen Diesel Phase
Turn Around Time: ☐ Normal ☒ Rush 44 Days
Pressurized by: _____ Date: _____
Pressurization Gas: N₂ He

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial	Final (psi)
01A	VMP-1-5-082510	97	08/26/10	0945/1032	10-15, ASTM D-1946, 116	30	7
02A	VMP-1-8-5-082510	1732	08/26/10	1058/1135	11	30	6.5
03A	VMP-4-5-082510	3756	08/26/10	1356/1435	11	30	9
04A	VMP-4-12-082510	3903	08/26/10	1504/1542	11	30	6
05A	VMP-7-5-082610	1356	08/26/10	0907/0943	11	29	8
06A	VMP-7-13-5-082610	154	08/26/10	1014/1044	11	30	10
07A	VMP-9-5-082610	520	08/26/10	1234/1254	11	30	4
08A	VMP-9-11-5-082610	1038	08/26/10	1331/1413	11	30	7
09A	VMP-9-25-5-082610	3032	08/26/10	1441/1518	11	30	5
10A	VMP-9-25-5-082610-DUP	3147	08/26/10	1441/1518	11	30	6

Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730
Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730
Relinquished by: (signature) (Signature) Date/Time 08/26/10 1730

Notes:
- 14 Dry hold time
- Report Results between MDL and RL
Level IV BCLVP

Shipper Name FEDEx Air Bill # 111A Condition Good Temp (°C) 11A Custody Seals Intact? Yes No (None) Work Order # 1008677

Roxana Vapor Data Review

Laboratory SDG: 1009055

Reviewer: Elizabeth Kunkel

Date Reviewed: 9/27/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-8-5-083010	VMP-8-9.5-083010
VMP-8-9.5-083010-Dup	VMP-8-23.5-083010
VMP-1-23.5-083010	VMP-2-5-083110
VMP-2-8.5-083110	VMP-2-22-083110
VMP-4-23.5-083110	VMP-7-29.5-083110

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that TO-15 surrogate, 1,2-dichloroethane-d₄ recovered outside evaluation criteria in samples VMP-4-23.5-083110 and VMP-7-29.5-083110. Sample VMP-4-23.5-083110 was analyzed at two different dilutions due to high levels of hexane. Sample results with the lowest reporting limits will be reported. Additionally, TO-15 LCS recoveries were outside evaluation criteria for the compound, alpha-chlorotoluene. Natural gases were detected in the method blank. Benzene was qualified in field duplicate pair VMP-8-9.5-083010/ VMP-8-9.5-083010-Dup due to field duplicate RPD outside evaluation criteria. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form; however the laboratory omitted "Dup" when transcribing COC designated sample ID, VMP-8-9.5-083010-Dup for natural gas analysis. Results were reported using the COC-designated sample IDs; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1009055B-11A	Natural Gases	Oxygen	0.017%
1009055B-11A	Natural Gases	Nitrogen	0.083%
1009055B-11B	Natural Gases	Helium	0.0042%

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-8-9.5-083010	Natural gases	Helium	-	U
VMP-4-23.5-083110	Natural gases	Helium	-	U
VMP-7-29.5-083110	Natural gases	Helium	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
1009055A-13A	TO-15	Alpha-Chlorotoluene	140/132	6	70-130/30

Analytical data that required qualification based on LCS data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
VMP-8-5-083010	TO-15	alpha-Chlorotoluene	J

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery	Criteria
VMP-4-23.5-083110	TO-15	1,2-Dichloroethane-d ₄	135	70-130
VMP-7-29.5-083110	TO-15	1,2-Dichloroethane-d ₄	146	70-130

Analytical data that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
VMP-4-23.5-083110	TO-15	All TO-15 detects	J
VMP-7-29.5-083110	TO-15	All TO-15 detects	J

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
VMP-8-9.5-083010	VMP-8-9.5-083010-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
VMP-8-9.5-083010	VMP-8-9.5-083010-Dup	TO-15	Benzene	26	J

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

9/24/2010

Mr. Jeff Adams

URS Corporation

1001 Highlands Plaza Dr. West

Suite 300

St. Louis MO 63110

Project Name:

Project #:

Workorder #: 1009055AR1

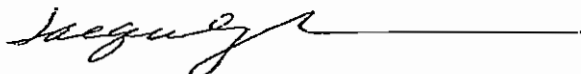
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/2/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager, Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta

Project Manager

Reviewed
on
9/27/2010

WORK ORDER #: 1009055AR1

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	
DATE RECEIVED:	09/02/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/16/2010		
DATE REISSUED:	09/24/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP - 8 - 5 - 083010 ✓	Modified TO-15	7.5 "Hg	15 psi
02A	VMP - 8 - 9.5 - 083010 ✓	Modified TO-15	5.0 "Hg	15 psi
03A	VMP - 8 - 9.5 - 083010-DUP ✓	Modified TO-15	5.5 "Hg	15 psi
04A	VMP - 8 - 23.5 - 083010 ✓	Modified TO-15	7.0 "Hg	15 psi
05A	VMP - 1 - 23.5 - 083010 ✓	Modified TO-15	7.5 "Hg	15 psi
06A	VMP - 2 - 5 - 083110 ✓	Modified TO-15	7.5 "Hg	15 psi
07A	VMP - 2 - 8.5 - 083110 ✓	Modified TO-15	8.0 "Hg	15 psi
08A	VMP - 2 - 22 - 083110 ✓	Modified TO-15	8.5 "Hg	15 psi
09A	VMP - 4 - 23.5 - 083110 ✓	Modified TO-15	9.0 "Hg	15 psi
09B	VMP - 4 - 23.5 - 083110 ✓	Modified TO-15	9.0 "Hg	15 psi
10A	VMP - 7 - 29.5 - 083110 ✓	Modified TO-15	5.5 "Hg	15 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1009055AR1

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

P.O. # 21562289.00011

FAX:

PROJECT #

DATE RECEIVED: 09/02/2010

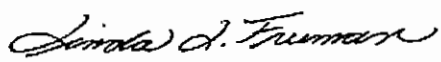
CONTACT: Jacquelyn Luta

DATE COMPLETED: 09/16/2010

DATE REISSUED: 09/24/2010

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 09/24/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009055AR1**

Ten 1 Liter Summa Canister samples were received on September 02, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The recovery of surrogate 1,2-Dichloroethane-d4 in samples VMP - 4 - 23.5 - 083110 and VMP - 7 - 29.5 - 083110 were outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

Due to high-level target compounds, sample VMP - 4 - 23.5 - 083110 was analyzed twice. In the "A" fraction, the sample was diluted to bring the highest-level compounds within the calibration range. The "B" fraction is also reported by client request and may be reported with "E" flags indicating the compound exceeds the calibration range. Both runs and associated QC are reported.

THE WORK ORDER WAS REISSUED ON 09/24/2010 TO CORRECT IDENTIFICATION OF SAMPLE VMP - 8 - 9.5 - 083010-DUP.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055ARI-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.53 J	6.6	2.6 J
Bromomethane	1.3	2.1	5.2	8.0
Freon 11	1.3	0.23 J	7.6	1.3 J
Freon 113	1.3	0.25 J	10	1.9 J
Acetone	5.4	18	13	43
2-Propanol	5.4	5.3 J	13	13 J
Carbon Disulfide	1.3	1.0 J	4.2	3.2 J
Methylene Chloride	1.3	0.75 J	4.7	2.6 J
Methyl tert-butyl ether	1.3	0.14 J	4.8	0.52 J
Hexane	1.3	0.91 J	4.7	3.2 J
1,1-Dichloroethane	1.3	0.17 J	5.4	0.69 J
2-Butanone (Methyl Ethyl Ketone)	1.3	5.0	4.0	15
cis-1,2-Dichloroethene	1.3	0.29 J	5.3	1.2 J
Chloroform	1.3	0.80 J	6.6	3.9 J
1,1,1-Trichloroethane	1.3	0.16 J	7.3	0.87 J
2,2,4-Trimethylpentane	1.3	2.4	6.3	11
Benzene	1.3	6.6	4.3	21
1,2-Dichloroethane	1.3	0.23 J	5.4	0.92 J
Heptane	1.3	0.47 J	5.5	1.9 J
Trichloroethene	1.3	0.51 J	7.2	2.7 J
Toluene	1.3	0.29 J	5.1	1.1 J
1,1,2-Trichloroethane	1.3	0.16 J	7.3	0.90 J
Tetrachloroethene	1.3	0.71 J	9.1	4.8 J
2-Hexanone	5.4	0.71 J	22	2.9 J
1,2-Dibromoethane (EDB)	1.3	0.19 J	10	1.5 J
Chlorobenzene	1.3	0.70 J	6.2	3.2 J
m,p-Xylene	1.3	0.32 J	5.8	1.4 J
4-Ethyltoluene	1.3	0.29 J	6.6	1.4 J
1,2,4-Trimethylbenzene	1.3	0.30 J	6.6	1.5 J
1,3-Dichlorobenzene	1.3	0.63 J	8.1	3.8 J
1,4-Dichlorobenzene	1.3	0.76 J	8.1	4.6 J
alpha-Chlorotoluene	1.3	0.36 J	7.0	1.8 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055AR1-01A

1,2-Dichlorobenzene	1.3	0.56 J	8.1	3.4 J
1,2,4-Trichlorobenzene	5.4	2.0 J	40	15 J

Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.48 J	6.0	2.4 J
Bromomethane	1.2	1.8	4.7	6.8
Freon 11	1.2	0.25 J	6.8	1.4 J
Ethanol	4.8	8.7	9.1	16
Freon 113	1.2	0.15 J	9.3	1.1 J
Acetone	4.8	17	11	40
2-Propanol	4.8	12	12	29
Carbon Disulfide	1.2	0.39 J	3.8	1.2 J
Methylene Chloride	1.2	1.4	4.2	5.0
Methyl tert-butyl ether	1.2	0.11 J	4.4	0.39 J
Hexane	1.2	1.6	4.3	5.5
1,1-Dichloroethane	1.2	0.12 J	4.9	0.48 J
2-Butanone (Methyl Ethyl Ketone)	1.2	2.0	3.6	6.1
cis-1,2-Dichloroethane	1.2	0.15 J	4.8	0.59 J
2,2,4-Trimethylpentane	1.2	0.52 J	5.6	2.4 J
Benzene	1.2	4.8 "J"	3.9	15 "J"
Heptane	1.2	0.42 J	5.0	1.7 J
Trichloroethene	1.2	0.51 J	6.5	2.7 J
Toluene	1.2	0.87 J	4.6	3.3 J
1,1,2-Trichloroethane	1.2	0.14 J	6.6	0.75 J
Tetrachloroethene	1.2	0.66 J	8.2	4.5 J
2-Hexanone	4.8	0.31 J	20	1.3 J
Chlorobenzene	1.2	0.59 J	5.6	2.7 J
m,p-Xylene	1.2	0.30 J	5.2	1.3 J
4-Ethyltoluene	1.2	0.22 J	5.9	1.1 J
1,2,4-Trimethylbenzene	1.2	0.20 J	5.9	0.98 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055AR1-02A

1,3-Dichlorobenzene	1.2	0.42 J	7.3	2.5 J
1,4-Dichlorobenzene	1.2	0.48 J	7.3	2.9 J
1,2,4-Trichlorobenzene	4.8	1.4 J	36	10 J

Client Sample ID: VMP - 8 - 9.5 - 083010-DUP

Lab ID#: 1009055AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.50 J	6.1	2.4 J
Bromomethane	1.2	2.0	4.8	7.9
Freon 11	1.2	0.30 J	6.9	1.7 J
Ethanol	4.9	7.1	9.3	13
Freon 113	1.2	0.14 J	9.5	1.0 J
Acetone	4.9	17	12	41
2-Propanol	4.9	2.8 J	12	6.8 J
Carbon Disulfide	1.2	0.38 J	3.8	1.2 J
Methylene Chloride	1.2	0.39 J	4.3	1.3 J
Hexane	1.2	0.97 J	4.4	3.4 J
1,1-Dichloroethane	1.2	0.10 J	5.0	0.41 J
2-Butanone (Methyl Ethyl Ketone)	1.2	3.3	3.6	9.7
Chloroform	1.2	0.19 J	6.0	0.94 J
1,1,1-Trichloroethane	1.2	0.13 J	6.7	0.72 J
2,2,4-Trimethylpentane	1.2	0.36 J	5.8	1.6 J
Benzene	1.2	3.7 "J"	3.9	12 "J"
1,2-Dichloroethane	1.2	0.17 J	5.0	0.70 J
Heptane	1.2	0.40 J	5.1	1.6 J
Trichloroethene	1.2	0.35 J	6.6	1.9 J
1,2-Dichloropropane	1.2	0.21 J	5.7	0.99 J
Toluene	1.2	0.18 J	4.6	0.70 J
1,1,2-Trichloroethane	1.2	0.15 J	6.7	0.84 J
Tetrachloroethene	1.2	0.64 J	8.4	4.3 J
2-Hexanone	4.9	0.41 J	20	1.7 J
Chlorobenzene	1.2	0.62 J	5.7	2.8 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP - 8 - 9.5 - 083010-DUP

Lab ID#: 1009055AR1-03A

Styrene	1.2	0.26 J	5.3	1.1 J
1,2,4-Trimethylbenzene	1.2	0.16 J	6.1	0.79 J
1,3-Dichlorobenzene	1.2	0.35 J	7.4	2.1 J
1,4-Dichlorobenzene	1.2	0.44 J	7.4	2.6 J

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.56 J	6.5	2.8 J
Freon 11	1.3	0.30 J	7.4	1.7 J
Ethanol	5.3	3.7 J	9.9	6.9 J
Freon 113	1.3	0.18 J	10	1.4 J
Acetone	5.3	8.2	12	20
2-Propanol	5.3	1.9 J	13	4.6 J
Carbon Disulfide	1.3	0.47 J	4.1	1.5 J
Methylene Chloride	1.3	0.43 J	4.6	1.5 J
Methyl tert-butyl ether	1.3	0.10 J	4.8	0.37 J
Hexane	1.3	0.69 J	4.6	2.4 J
2-Butanone (Methyl Ethyl Ketone)	1.3	1.5	3.9	4.4
cis-1,2-Dichloroethene	1.3	0.21 J	5.2	0.85 J
1,1,1-Trichloroethane	1.3	0.15 J	7.2	0.84 J
Cyclohexane	1.3	0.57 J	4.5	2.0 J
Carbon Tetrachloride	1.3	0.14 J	8.3	0.90 J
2,2,4-Trimethylpentane	1.3	1.6	6.2	7.3
Benzene	1.3	3.9	4.2	13
1,2-Dichloroethane	1.3	0.21 J	5.3	0.85 J
Heptane	1.3	0.52 J	5.4	2.1 J
Trichloroethene	1.3	0.37 J	7.1	2.0 J
Toluene	1.3	0.17 J	5.0	0.63 J
1,1,2-Trichloroethane	1.3	0.19 J	7.2	1.0 J
Tetrachloroethene	1.3	0.56 J	9.0	3.8 J
2-Hexanone	5.3	0.28 J	22	1.1 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055AR1-04A

Chlorobenzene	1.3	0.66 J	6.1	3.0 J
1,3-Dichlorobenzene	1.3	0.35 J	7.9	2.1 J
1,4-Dichlorobenzene	1.3	0.42 J	7.9	2.6 J

Client Sample ID: VMP - 1 - 23.5 - 083010

Lab ID#: 1009055AR1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	450	75000	1600	260000
Cyclohexane	450	38000	1500	130000
2,2,4-Trimethylpentane	450	340000	2100	1600000
Benzene	450	450	1400	1400
Heptane	450	11000	1800	44000

Client Sample ID: VMP - 2 - 5 - 083110

Lab ID#: 1009055AR1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	450	8100	1500	28000
2,2,4-Trimethylpentane	450	280000	2100	1300000
Benzene	450	280 J	1400	890 J

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055AR1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	460	11000	1600	38000
Cyclohexane	460	17000	1600	57000
2,2,4-Trimethylpentane	460	440000	2100	2000000
Benzene	460	460	1500	1400

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP - 2 - 22 - 083110

Lab ID#: 1009055A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	700	18000	2500	63000
Cyclohexane	700	24000	2400	81000
2,2,4-Trimethylpentane	700	500000	3300	2300000
Benzene	700	540 J	2200	1700 J

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055A-09A

* "Use these results only. All other data was reported from the 289X dilution analysis."
"Dilution Factor = 1440"

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
* Hexane	7200	3800000 J	25000	13000000 J
Cyclohexane	7200	670000	25000	2300000
2,2,4-Trimethylpentane	7200	870000	34000	4500000
Benzene	7200	120000	23000	300000
Heptane	7200	800000	30000	3300000
Toluene	7200	410000	27000	1500000
Ethyl Benzene	7200	150000	31000	660000
m,p-Xylene	7200	280000	31000	1200000
o-Xylene	7200	84000	31000	400000
Cumene	7200	5500 J	35000	27000 J
Propylbenzene	7200	8400	35000	46000
4-Ethyltoluene	7200	31000	35000	160000
1,3,5-Trimethylbenzene	7200	8000	35000	30000
1,2,4-Trimethylbenzene	7200	25000	35000	120000

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055A-09B

* "Do not use this data." "Use all other data."
"Dilution Factor = 289"

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
* Hexane	1400	4800000 E	5100	17000000 E
Cyclohexane	1400	860000 J	5000	3000000 J
2,2,4-Trimethylpentane	1400	1200000 J	6800	5800000 J

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055AR1-09B

Benzene	1400	150000 "J"	4600	490000 "J"
Heptane	1400	1000000 "J"	5900	4100000 "J"
Toluene	1400	540000 "J"	5400	2000000 "J"
Ethyl Benzene	1400	220000 "J"	6300	960000 "J"
m,p-Xylene	1400	420000 "J"	6300	1800000 "J"
o-Xylene	1400	140000 "J"	6300	600000 "J"
Cumene	1400	7800 "J"	7100	38000 "J"
Propylbenzene	1400	14000 "J"	7100	69000 "J"
4-Ethyltoluene	1400	46000 "J"	7100	230000 "J"
1,3,5-Trimethylbenzene	1400	14000 "J"	7100	66000 "J"
1,2,4-Trimethylbenzene	1400	39000 "J"	7100	190000 "J"

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055AR1-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	410	120000 "J"	1400	420000 "J"
Cyclohexane	410	160000 "J"	1400	540000 "J"
2,2,4-Trimethylpentane	410	270000 "J"	1900	1300000 "J"
Benzene	410	27000 "J"	1300	86000 "J"
Heptane	410	100000 "J"	1700	420000 "J"
Toluene	410	280 "J"	1600	1000 "J"
m,p-Xylene	410	360 "J"	1800	1600 "J"
Cumene	410	1200 "J"	2000	6000 "J"
Propylbenzene	410	1000 "J"	2000	5000 "J"

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055AR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091107	Date of Collection:	8/30/10 10:34:00 AM	
Dil. Factor:	2.69	Date of Analysis:	9/11/10 12:46 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.53 J	6.6	2.6 J
Freon 114	1.3	Not Detected	9.4	Not Detected
Chloromethane	5.4	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	3.0	Not Detected
Bromomethane	1.3	2.1	5.2	8.0
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.23 J	7.6	1.3 J
Ethanol	5.4	Not Detected	10	Not Detected
Freon 113	1.3	0.25 J	10	1.9 J
1,1-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Acetone	5.4	18	13	43
2-Propanol	5.4	5.3 J	13	13 J
Carbon Disulfide	1.3	1.0 J	4.2	3.2 J
3-Chloropropene	5.4	Not Detected	17	Not Detected
Methylene Chloride	1.3	0.75 J	4.7	2.6 J
Methyl tert-butyl ether	1.3	0.14 J	4.8	0.52 J
trans-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Hexane	1.3	0.91 J	4.7	3.2 J
1,1-Dichloroethane	1.3	0.17 J	5.4	0.69 J
2-Butanone (Methyl Ethyl Ketone)	1.3	5.0	4.0	15
cis-1,2-Dichloroethene	1.3	0.29 J	5.3	1.2 J
Tetrahydrofuran	1.3	Not Detected	4.0	Not Detected
Chloroform	1.3	0.80 J	6.6	3.9 J
1,1,1-Trichloroethane	1.3	0.16 J	7.3	0.87 J
Cyclohexane	1.3	Not Detected	4.6	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.5	Not Detected
2,2,4-Trimethylpentane	1.3	2.4	6.3	11
Benzene	1.3	6.6	4.3	21
1,2-Dichloroethane	1.3	0.23 J	5.4	0.92 J
Heptane	1.3	0.47 J	5.5	1.9 J
Trichloroethene	1.3	0.51 J	7.2	2.7 J
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
1,4-Dioxane	5.4	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	0.29 J	5.1	1.1 J
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.3	0.16 J	7.3	0.90 J
Tetrachloroethene	1.3	0.71 J	9.1	4.8 J

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055ARI-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091107	Date of Collection: 8/30/10 10:34:00 AM		
Dil. Factor:	2.69	Date of Analysis: 9/11/10 12:46 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.4	0.71 J	22	2.9 J
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	0.19 J	10	1.5 J
Chlorobenzene	1.3	0.70 J	6.2	3.2 J
Ethyl Benzene	1.3	Not Detected	5.8	Not Detected
m,p-Xylene	1.3	0.32 J	5.8	1.4 J
o-Xylene	1.3	Not Detected	5.8	Not Detected
Styrene	1.3	Not Detected	5.7	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected
Propylbenzene	1.3	Not Detected	6.6	Not Detected
4-Ethyltoluene	1.3	0.29 J	6.6	1.4 J
1,3,5-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.3	0.30 J	6.6	1.5 J
1,3-Dichlorobenzene	1.3	0.63 J	8.1	3.8 J
1,4-Dichlorobenzene	1.3	0.76 J	8.1	4.6 J
alpha-Chlorotoluene	1.3	0.36 J	7.0	1.8 J
1,2-Dichlorobenzene	1.3	0.56 J	8.1	3.4 J
1,2,4-Trichlorobenzene	5.4	2.0 J	40	15 J
Hexachlorobutadiene	5.4	Not Detected	57	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055AR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091108	Date of Collection:	8/30/10 11:40:00 AM	
Dil. Factor:	2.42	Date of Analysis:	9/11/10 01:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.48 J	6.0	2.4 J
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	4.8	Not Detected	10	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	1.2	1.8	4.7	6.8
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	0.25 J	6.8	1.4 J
Ethanol	4.8	8.7	9.1	16
Freon 113	1.2	0.15 J	9.3	1.1 J
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	4.8	17	11	40
2-Propanol	4.8	12	12	29
Carbon Disulfide	1.2	0.39 J	3.8	1.2 J
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	1.2	1.4	4.2	5.0
Methyl tert-butyl ether	1.2	0.11 J	4.4	0.39 J
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	1.6	4.3	5.5
1,1-Dichloroethane	1.2	0.12 J	4.9	0.48 J
2-Butanone (Methyl Ethyl Ketone)	1.2	2.0	3.6	6.1
cis-1,2-Dichloroethene	1.2	0.15 J	4.8	0.59 J
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	0.52 J	5.6	2.4 J
Benzene	1.2	4.8 "J"	3.9	15 "J"
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	0.42 J	5.0	1.7 J
Trichloroethene	1.2	0.51 J	6.5	2.7 J
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	0.87 J	4.6	3.3 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	0.14 J	6.6	0.75 J
Tetrachloroethene	1.2	0.66 J	8.2	4.5 J

Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055ARI-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091108	Date of Collection:	8/30/10 11:40:00 AM	
Dil. Factor:	2.42	Date of Analysis:	9/11/10 01:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	4.8	0.31 J	20	1.3 J
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	0.59 J	5.6	2.7 J
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	0.30 J	5.2	1.3 J
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	0.22 J	5.9	1.1 J
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	0.20 J	5.9	0.98 J
1,3-Dichlorobenzene	1.2	0.42 J	7.3	2.5 J
1,4-Dichlorobenzene	1.2	0.48 J	7.3	2.9 J
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	1.4 J	36	10 J
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VMP - 8 - 9.5 - 083010-DUP

Lab ID#: 1009055AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091109	Date of Collection: 8/30/10 11:48:00 AM		
Dil. Factor:	2.47	Date of Analysis: 9/11/10 01:51 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.50 J	6.1	2.4 J
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	4.9	Not Detected	10	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	1.2	2.0	4.8	7.9
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	0.30 J	6.9	1.7 J
Ethanol	4.9	7.1	9.3	13
Freon 113	1.2	0.14 J	9.5	1.0 J
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	4.9	17	12	41
2-Propanol	4.9	2.8 J	12	6.8 J
Carbon Disulfide	1.2	0.38 J	3.8	1.2 J
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	1.2	0.39 J	4.3	1.3 J
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	0.97 J	4.4	3.4 J
1,1-Dichloroethane	1.2	0.10 J	5.0	0.41 J
2-Butanone (Methyl Ethyl Ketone)	1.2	3.3	3.6	9.7
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	0.19 J	6.0	0.94 J
1,1,1-Trichloroethane	1.2	0.13 J	6.7	0.72 J
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	0.36 J	5.8	1.6 J
Benzene	1.2	3.7 J	3.9	12 J
1,2-Dichloroethane	1.2	0.17 J	5.0	0.70 J
Heptane	1.2	0.40 J	5.1	1.6 J
Trichloroethene	1.2	0.35 J	6.6	1.9 J
1,2-Dichloropropane	1.2	0.21 J	5.7	0.99 J
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	0.18 J	4.6	0.70 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	0.15 J	6.7	0.84 J
Tetrachloroethene	1.2	0.64 J	8.4	4.3 J

Client Sample ID: VMP - 8 - 9.5 - 083010-DUP

Lab ID#: 1009055ARI-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091109	Date of Collection:	8/30/10 11:48:00 AM	
Dil. Factor:	2.47	Date of Analysis:	9/11/10 01:51 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	4.9	0.41 J	20	1.7 J
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	0.62 J	5.7	2.8 J
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	0.26 J	5.3	1.1 J
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	0.16 J	6.1	0.79 J
1,3-Dichlorobenzene	1.2	0.35 J	7.4	2.1 J
1,4-Dichlorobenzene	1.2	0.44 J	7.4	2.6 J
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055ARI-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091110	Date of Collection: 8/30/10 1:08:00 PM		
Dil. Factor:	2.64	Date of Analysis: 9/11/10 02:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.56 J	6.5	2.8 J
Freon 114	1.3	Not Detected	9.2	Not Detected
Chloromethane	5.3	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	2.9	Not Detected
Bromomethane	1.3	Not Detected	5.1	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.30 J	7.4	1.7 J
Ethanol	5.3	3.7 J	9.9	6.9 J
Freon 113	1.3	0.18 J	10	1.4 J
1,1-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Acetone	5.3	8.2	12	20
2-Propanol	5.3	1.9 J	13	4.6 J
Carbon Disulfide	1.3	0.47 J	4.1	1.5 J
3-Chloropropene	5.3	Not Detected	16	Not Detected
Methylene Chloride	1.3	0.43 J	4.6	1.5 J
Methyl tert-butyl ether	1.3	0.10 J	4.8	0.37 J
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Hexane	1.3	0.69 J	4.6	2.4 J
1,1-Dichloroethane	1.3	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	1.5	3.9	4.4
cis-1,2-Dichloroethene	1.3	0.21 J	5.2	0.85 J
Tetrahydrofuran	1.3	Not Detected	3.9	Not Detected
Chloroform	1.3	Not Detected	6.4	Not Detected
1,1,1-Trichloroethane	1.3	0.15 J	7.2	0.84 J
Cyclohexane	1.3	0.57 J	4.5	2.0 J
Carbon Tetrachloride	1.3	0.14 J	8.3	0.90 J
2,2,4-Trimethylpentane	1.3	1.6	6.2	7.3
Benzene	1.3	3.9	4.2	13
1,2-Dichloroethane	1.3	0.21 J	5.3	0.85 J
Heptane	1.3	0.52 J	5.4	2.1 J
Trichloroethene	1.3	0.37 J	7.1	2.0 J
1,2-Dichloropropane	1.3	Not Detected	6.1	Not Detected
1,4-Dioxane	5.3	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	8.8	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.4	Not Detected
Toluene	1.3	0.17 J	5.0	0.63 J
trans-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
1,1,2-Trichloroethane	1.3	0.19 J	7.2	1.0 J
Tetrachloroethene	1.3	0.56 J	9.0	3.8 J

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055ARI-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091110	Date of Collection: 8/30/10 1:08:00 PM
Dil. Factor:	2.64	Date of Analysis: 9/11/10 02:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.3	0.28 J	22	1.1 J
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	0.66 J	6.1	3.0 J
Ethyl Benzene	1.3	Not Detected	5.7	Not Detected
m,p-Xylene	1.3	Not Detected	5.7	Not Detected
o-Xylene	1.3	Not Detected	5.7	Not Detected
Styrene	1.3	Not Detected	5.6	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.5	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.1	Not Detected
Propylbenzene	1.3	Not Detected	6.5	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.5	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,3-Dichlorobenzene	1.3	0.35 J	7.9	2.1 J
1,4-Dichlorobenzene	1.3	0.42 J	7.9	2.6 J
alpha-Chlorotoluene	1.3	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,2,4-Trichlorobenzene	5.3	Not Detected	39	Not Detected
Hexachlorobutadiene	5.3	Not Detected	56	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: VMP - 1 - 23.5 - 083010

Lab ID#: 1009055ARI-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091121	Date of Collection:	8/30/10 3:23:00 PM	
Dil. Factor:	89.7	Date of Analysis:	9/12/10 10:40 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	450	Not Detected	2200	Not Detected
Freon 114	450	Not Detected	3100	Not Detected
Chloromethane	1800	Not Detected	3700	Not Detected
Vinyl Chloride	450	Not Detected	1100	Not Detected
1,3-Butadiene	450	Not Detected	990	Not Detected
Bromomethane	450	Not Detected	1700	Not Detected
Chloroethane	450	Not Detected	1200	Not Detected
Freon 11	450	Not Detected	2500	Not Detected
Ethanol	1800	Not Detected	3400	Not Detected
Freon 113	450	Not Detected	3400	Not Detected
1,1-Dichloroethene	450	Not Detected	1800	Not Detected
Acetone	1800	Not Detected	4300	Not Detected
2-Propanol	1800	Not Detected	4400	Not Detected
Carbon Disulfide	450	Not Detected	1400	Not Detected
3-Chloropropene	1800	Not Detected	5600	Not Detected
Methylene Chloride	450	Not Detected	1600	Not Detected
Methyl tert-butyl ether	450	Not Detected	1600	Not Detected
trans-1,2-Dichloroethene	450	Not Detected	1800	Not Detected
Hexane	450	75000	1600	260000
1,1-Dichloroethane	450	Not Detected	1800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	450	Not Detected	1300	Not Detected
cis-1,2-Dichloroethene	450	Not Detected	1800	Not Detected
Tetrahydrofuran	450	Not Detected	1300	Not Detected
Chloroform	450	Not Detected	2200	Not Detected
1,1,1-Trichloroethane	450	Not Detected	2400	Not Detected
Cyclohexane	450	38000	1500	130000
Carbon Tetrachloride	450	Not Detected	2800	Not Detected
2,2,4-Trimethylpentane	450	340000	2100	1600000
Benzene	450	450	1400	1400
1,2-Dichloroethane	450	Not Detected	1800	Not Detected
Heptane	450	11000	1800	44000
Trichloroethene	450	Not Detected	2400	Not Detected
1,2-Dichloropropane	450	Not Detected	2100	Not Detected
1,4-Dioxane	1800	Not Detected	6500	Not Detected
Bromodichloromethane	450	Not Detected	3000	Not Detected
cis-1,3-Dichloropropene	450	Not Detected	2000	Not Detected
4-Methyl-2-pentanone	450	Not Detected	1800	Not Detected
Toluene	450	Not Detected	1700	Not Detected
trans-1,3-Dichloropropene	450	Not Detected	2000	Not Detected
1,1,2-Trichloroethane	450	Not Detected	2400	Not Detected
Tetrachloroethene	450	Not Detected	3000	Not Detected

Client Sample ID: VMP - 1 - 23.5 - 083010

Lab ID#: 1009055ARI-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091121	Date of Collection:	8/30/10 3:23:00 PM	
Dil. Factor:	89.7	Date of Analysis:	9/12/10 10:40 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	1800	Not Detected	7300	Not Detected
Dibromochloromethane	450	Not Detected	3800	Not Detected
1,2-Dibromoethane (EDB)	450	Not Detected	3400	Not Detected
Chlorobenzene	450	Not Detected	2100	Not Detected
Ethyl Benzene	450	Not Detected	1900	Not Detected
m,p-Xylene	450	Not Detected	1900	Not Detected
o-Xylene	450	Not Detected	1900	Not Detected
Styrene	450	Not Detected	1900	Not Detected
Bromoform	450	Not Detected	4600	Not Detected
Cumene	450	Not Detected	2200	Not Detected
1,1,2,2-Tetrachloroethane	450	Not Detected	3100	Not Detected
Propylbenzene	450	Not Detected	2200	Not Detected
4-Ethyltoluene	450	Not Detected	2200	Not Detected
1,3,5-Trimethylbenzene	450	Not Detected	2200	Not Detected
1,2,4-Trimethylbenzene	450	Not Detected	2200	Not Detected
1,3-Dichlorobenzene	450	Not Detected	2700	Not Detected
1,4-Dichlorobenzene	450	Not Detected	2700	Not Detected
alpha-Chlorotoluene	450	Not Detected	2300	Not Detected
1,2-Dichlorobenzene	450	Not Detected	2700	Not Detected
1,2,4-Trichlorobenzene	1800	Not Detected	13000	Not Detected
Hexachlorobutadiene	1800	Not Detected	19000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VMP - 2 - 5 - 083110

Lab ID#: 1009055AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091122	Date of Collection:	8/31/10 11:15:00 AM	
Dil. Factor:	89.7	Date of Analysis:	9/12/10 11:05 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	450	Not Detected	2200	Not Detected
Freon 114	450	Not Detected	3100	Not Detected
Chloromethane	1800	Not Detected	3700	Not Detected
Vinyl Chloride	450	Not Detected	1100	Not Detected
1,3-Butadiene	450	Not Detected	990	Not Detected
Bromomethane	450	Not Detected	1700	Not Detected
Chloroethane	450	Not Detected	1200	Not Detected
Freon 11	450	Not Detected	2500	Not Detected
Ethanol	1800	Not Detected	3400	Not Detected
Freon 113	450	Not Detected	3400	Not Detected
1,1-Dichloroethene	450	Not Detected	1800	Not Detected
Acetone	1800	Not Detected	4300	Not Detected
2-Propanol	1800	Not Detected	4400	Not Detected
Carbon Disulfide	450	Not Detected	1400	Not Detected
3-Chloropropene	1800	Not Detected	5600	Not Detected
Methylene Chloride	450	Not Detected	1600	Not Detected
Methyl tert-butyl ether	450	Not Detected	1600	Not Detected
trans-1,2-Dichloroethene	450	Not Detected	1800	Not Detected
Hexane	450	Not Detected	1600	Not Detected
1,1-Dichloroethane	450	Not Detected	1800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	450	Not Detected	1300	Not Detected
cis-1,2-Dichloroethene	450	Not Detected	1800	Not Detected
Tetrahydrofuran	450	Not Detected	1300	Not Detected
Chloroform	450	Not Detected	2200	Not Detected
1,1,1-Trichloroethane	450	Not Detected	2400	Not Detected
Cyclohexane	450	8100	1500	28000
Carbon Tetrachloride	450	Not Detected	2800	Not Detected
2,2,4-Trimethylpentane	450	280000	2100	1300000
Benzene	450	280 J	1400	890 J
1,2-Dichloroethane	450	Not Detected	1800	Not Detected
Heptane	450	Not Detected	1800	Not Detected
Trichloroethene	450	Not Detected	2400	Not Detected
1,2-Dichloropropane	450	Not Detected	2100	Not Detected
1,4-Dioxane	1800	Not Detected	6500	Not Detected
Bromodichloromethane	450	Not Detected	3000	Not Detected
cis-1,3-Dichloropropene	450	Not Detected	2000	Not Detected
4-Methyl-2-pentanone	450	Not Detected	1800	Not Detected
Toluene	450	Not Detected	1700	Not Detected
trans-1,3-Dichloropropene	450	Not Detected	2000	Not Detected
1,1,2-Trichloroethane	450	Not Detected	2400	Not Detected
Tetrachloroethene	450	Not Detected	3000	Not Detected

Client Sample ID: VMP - 2 - 5 - 083110

Lab ID#: 1009055AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091122	Date of Collection: 8/31/10 11:15:00 AM		
Dil. Factor:	89.7	Date of Analysis: 9/12/10 11:05 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	1800	Not Detected	7300	Not Detected
Dibromochloromethane	450	Not Detected	3800	Not Detected
1,2-Dibromoethane (EDB)	450	Not Detected	3400	Not Detected
Chlorobenzene	450	Not Detected	2100	Not Detected
Ethyl Benzene	450	Not Detected	1900	Not Detected
m,p-Xylene	450	Not Detected	1900	Not Detected
o-Xylene	450	Not Detected	1900	Not Detected
Styrene	450	Not Detected	1900	Not Detected
Bromoform	450	Not Detected	4600	Not Detected
Cumene	450	Not Detected	2200	Not Detected
1,1,2,2-Tetrachloroethane	450	Not Detected	3100	Not Detected
Propylbenzene	450	Not Detected	2200	Not Detected
4-Ethyltoluene	450	Not Detected	2200	Not Detected
1,3,5-Trimethylbenzene	450	Not Detected	2200	Not Detected
1,2,4-Trimethylbenzene	450	Not Detected	2200	Not Detected
1,3-Dichlorobenzene	450	Not Detected	2700	Not Detected
1,4-Dichlorobenzene	450	Not Detected	2700	Not Detected
alpha-Chlorotoluene	450	Not Detected	2300	Not Detected
1,2-Dichlorobenzene	450	Not Detected	2700	Not Detected
1,2,4-Trichlorobenzene	1800	Not Detected	13000	Not Detected
Hexachlorobutadiene	1800	Not Detected	19000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055AR1-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091123	Date of Collection:	8/31/10 12:35:00 PM	
Dil. Factor:	92.0	Date of Analysis:	9/12/10 11:39 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	460	Not Detected	2300	Not Detected
Freon 114	460	Not Detected	3200	Not Detected
Chloromethane	1800	Not Detected	3800	Not Detected
Vinyl Chloride	460	Not Detected	1200	Not Detected
1,3-Butadiene	460	Not Detected	1000	Not Detected
Bromomethane	460	Not Detected	1800	Not Detected
Chloroethane	460	Not Detected	1200	Not Detected
Freon 11	460	Not Detected	2600	Not Detected
Ethanol	1800	Not Detected	3500	Not Detected
Freon 113	460	Not Detected	3500	Not Detected
1,1-Dichloroethene	460	Not Detected	1800	Not Detected
Acetone	1800	Not Detected	4400	Not Detected
2-Propanol	1800	Not Detected	4500	Not Detected
Carbon Disulfide	460	Not Detected	1400	Not Detected
3-Chloropropene	1800	Not Detected	5800	Not Detected
Methylene Chloride	460	Not Detected	1600	Not Detected
Methyl tert-butyl ether	460	Not Detected	1600	Not Detected
trans-1,2-Dichloroethene	460	Not Detected	1800	Not Detected
Hexane	460	11000	1600	38000
1,1-Dichloroethane	460	Not Detected	1900	Not Detected
2-Butanone (Methyl Ethyl Ketone)	460	Not Detected	1400	Not Detected
cis-1,2-Dichloroethene	460	Not Detected	1800	Not Detected
Tetrahydrofuran	460	Not Detected	1400	Not Detected
Chloroform	460	Not Detected	2200	Not Detected
1,1,1-Trichloroethane	460	Not Detected	2500	Not Detected
Cyclohexane	460	17000	1600	57000
Carbon Tetrachloride	460	Not Detected	2900	Not Detected
2,2,4-Trimethylpentane	460	440000	2100	2000000
Benzene	460	460	1500	1400
1,2-Dichloroethane	460	Not Detected	1900	Not Detected
Heptane	460	Not Detected	1900	Not Detected
Trichloroethene	460	Not Detected	2500	Not Detected
1,2-Dichloropropane	460	Not Detected	2100	Not Detected
1,4-Dioxane	1800	Not Detected	6600	Not Detected
Bromodichloromethane	460	Not Detected	3100	Not Detected
cis-1,3-Dichloropropene	460	Not Detected	2100	Not Detected
4-Methyl-2-pentanone	460	Not Detected	1900	Not Detected
Toluene	460	Not Detected	1700	Not Detected
trans-1,3-Dichloropropene	460	Not Detected	2100	Not Detected
1,1,2-Trichloroethane	460	Not Detected	2500	Not Detected
Tetrachloroethene	460	Not Detected	3100	Not Detected

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055ARI-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091123	Date of Collection:	8/31/10 12:35:00 PM	
Dil. Factor:	92.0	Date of Analysis:	9/12/10 11:39 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	1800	Not Detected	7500	Not Detected
Dibromochloromethane	460	Not Detected	3900	Not Detected
1,2-Dibromoethane (EDB)	460	Not Detected	3500	Not Detected
Chlorobenzene	460	Not Detected	2100	Not Detected
Ethyl Benzene	460	Not Detected	2000	Not Detected
m,p-Xylene	460	Not Detected	2000	Not Detected
o-Xylene	460	Not Detected	2000	Not Detected
Styrene	460	Not Detected	2000	Not Detected
Bromoform	460	Not Detected	4800	Not Detected
Cumene	460	Not Detected	2300	Not Detected
1,1,2,2-Tetrachloroethane	460	Not Detected	3200	Not Detected
Propylbenzene	460	Not Detected	2300	Not Detected
4-Ethyltoluene	460	Not Detected	2300	Not Detected
1,3,5-Trimethylbenzene	460	Not Detected	2300	Not Detected
1,2,4-Trimethylbenzene	460	Not Detected	2300	Not Detected
1,3-Dichlorobenzene	460	Not Detected	2800	Not Detected
1,4-Dichlorobenzene	460	Not Detected	2800	Not Detected
alpha-Chlorotoluene	460	Not Detected	2400	Not Detected
1,2-Dichlorobenzene	460	Not Detected	2800	Not Detected
1,2,4-Trichlorobenzene	1800	Not Detected	14000	Not Detected
Hexachlorobutadiene	1800	Not Detected	20000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VMP - 2 - 22 - 083110

Lab ID#: 1009055ARI-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091124	Date of Collection: 8/31/10 1:51:00 PM		
Dil. Factor:	141	Date of Analysis: 9/12/10 12:13 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	700	Not Detected	3500	Not Detected
Freon 114	700	Not Detected	4900	Not Detected
Chloromethane	2800	Not Detected	5800	Not Detected
Vinyl Chloride	700	Not Detected	1800	Not Detected
1,3-Butadiene	700	Not Detected	1600	Not Detected
Bromomethane	700	Not Detected	2700	Not Detected
Chloroethane	700	Not Detected	1900	Not Detected
Freon 11	700	Not Detected	4000	Not Detected
Ethanol	2800	Not Detected	5300	Not Detected
Freon 113	700	Not Detected	5400	Not Detected
1,1-Dichloroethene	700	Not Detected	2800	Not Detected
Acetone	2800	Not Detected	6700	Not Detected
2-Propanol	2800	Not Detected	6900	Not Detected
Carbon Disulfide	700	Not Detected	2200	Not Detected
3-Chloropropene	2800	Not Detected	8800	Not Detected
Methylene Chloride	700	Not Detected	2400	Not Detected
Methyl tert-butyl ether	700	Not Detected	2500	Not Detected
trans-1,2-Dichloroethene	700	Not Detected	2800	Not Detected
Hexane	700	18000	2500	63000
1,1-Dichloroethane	700	Not Detected	2800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	700	Not Detected	2100	Not Detected
cis-1,2-Dichloroethene	700	Not Detected	2800	Not Detected
Tetrahydrofuran	700	Not Detected	2100	Not Detected
Chloroform	700	Not Detected	3400	Not Detected
1,1,1-Trichloroethane	700	Not Detected	3800	Not Detected
Cyclohexane	700	24000	2400	81000
Carbon Tetrachloride	700	Not Detected	4400	Not Detected
2,2,4-Trimethylpentane	700	500000	3300	2300000
Benzene	700	540 J	2200	1700 J
1,2-Dichloroethane	700	Not Detected	2800	Not Detected
Heptane	700	Not Detected	2900	Not Detected
Trichloroethene	700	Not Detected	3800	Not Detected
1,2-Dichloropropane	700	Not Detected	3200	Not Detected
1,4-Dioxane	2800	Not Detected	10000	Not Detected
Bromodichloromethane	700	Not Detected	4700	Not Detected
cis-1,3-Dichloropropene	700	Not Detected	3200	Not Detected
4-Methyl-2-pentanone	700	Not Detected	2900	Not Detected
Toluene	700	Not Detected	2600	Not Detected
trans-1,3-Dichloropropene	700	Not Detected	3200	Not Detected
1,1,2-Trichloroethane	700	Not Detected	3800	Not Detected
Tetrachloroethene	700	Not Detected	4800	Not Detected

Client Sample ID: VMP - 2 - 22 - 083110

Lab ID#: 1009055AR1-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091124	Date of Collection: 8/31/10 1:51:00 PM		
Dil. Factor:	141	Date of Analysis: 9/12/10 12:13 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	2800	Not Detected	12000	Not Detected
Dibromochloromethane	700	Not Detected	6000	Not Detected
1,2-Dibromoethane (EDB)	700	Not Detected	5400	Not Detected
Chlorobenzene	700	Not Detected	3200	Not Detected
Ethyl Benzene	700	Not Detected	3100	Not Detected
m,p-Xylene	700	Not Detected	3100	Not Detected
o-Xylene	700	Not Detected	3100	Not Detected
Styrene	700	Not Detected	3000	Not Detected
Bromoform	700	Not Detected	7300	Not Detected
Cumene	700	Not Detected	3500	Not Detected
1,1,2,2-Tetrachloroethane	700	Not Detected	4800	Not Detected
Propylbenzene	700	Not Detected	3500	Not Detected
4-Ethyltoluene	700	Not Detected	3500	Not Detected
1,3,5-Trimethylbenzene	700	Not Detected	3500	Not Detected
1,2,4-Trimethylbenzene	700	Not Detected	3500	Not Detected
1,3-Dichlorobenzene	700	Not Detected	4200	Not Detected
1,4-Dichlorobenzene	700	Not Detected	4200	Not Detected
alpha-Chlorotoluene	700	Not Detected	3600	Not Detected
1,2-Dichlorobenzene	700	Not Detected	4200	Not Detected
1,2,4-Trichlorobenzene	2800	Not Detected	21000	Not Detected
Hexachlorobutadiene	2800	Not Detected	30000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

* "Use these results only. All other data was reported from the 289 X dilution analysis."



Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091128	Date of Collection:	8/31/10 3:22:00 PM
Dil. Factor:	1440	Date of Analysis:	9/12/10 02:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	7200	Not Detected	36000	Not Detected
Freon 114	7200	Not Detected	50000	Not Detected
Chloromethane	29000	Not Detected	59000	Not Detected
Vinyl Chloride	7200	Not Detected	18000	Not Detected
1,3-Butadiene	7200	Not Detected	16000	Not Detected
Bromomethane	7200	Not Detected	28000	Not Detected
Chloroethane	7200	Not Detected	19000	Not Detected
Freon 11	7200	Not Detected	40000	Not Detected
Ethanol	29000	Not Detected	54000	Not Detected
Freon 113	7200	Not Detected	55000	Not Detected
1,1-Dichloroethene	7200	Not Detected	28000	Not Detected
Acetone	29000	Not Detected	68000	Not Detected
2-Propanol	29000	Not Detected	71000	Not Detected
Carbon Disulfide	7200	Not Detected	22000	Not Detected
3-Chloropropene	29000	Not Detected	90000	Not Detected
Methylene Chloride	7200	Not Detected	25000	Not Detected
Methyl tert-butyl ether	7200	Not Detected	26000	Not Detected
trans-1,2-Dichloroethene	7200	Not Detected	28000	Not Detected
* Hexane	7200	3800000 "J"	25000	13000000
1,1-Dichloroethane	7200	Not Detected	29000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7200	Not Detected	21000	Not Detected
cis-1,2-Dichloroethene	7200	Not Detected	28000	Not Detected
Tetrahydrofuran	7200	Not Detected	21000	Not Detected
Chloroform	7200	Not Detected	35000	Not Detected
1,1,1-Trichloroethane	7200	Not Detected	39000	Not Detected
Cyclohexane	7200	670000	25000	2300000
Carbon Tetrachloride	7200	Not Detected	45000	Not Detected
2,2,4-Trimethylpentane	7200	970000	34000	4500000
Benzene	7200	120000	23000	390000
1,2-Dichloroethane	7200	Not Detected	29000	Not Detected
Heptane	7200	800000	30000	3300000
Trichloroethene	7200	Not Detected	39000	Not Detected
1,2-Dichloropropane	7200	Not Detected	33000	Not Detected
1,4-Dioxane	29000	Not Detected	100000	Not Detected
Bromodichloromethane	7200	Not Detected	48000	Not Detected
cis-1,3-Dichloropropene	7200	Not Detected	33000	Not Detected
4-Methyl-2-pentanone	7200	Not Detected	29000	Not Detected
Toluene	7200	410000	27000	1500000
trans-1,3-Dichloropropene	7200	Not Detected	33000	Not Detected
1,1,2-Trichloroethane	7200	Not Detected	39000	Not Detected
Tetrachloroethene	7200	Not Detected	49000	Not Detected

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055AR1-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091128	Date of Collection: 8/31/10 3:22:00 PM		
Dil. Factor:	1440	Date of Analysis: 9/12/10 02:21 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	29000	Not Detected	120000	Not Detected
Dibromochloromethane	7200	Not Detected	61000	Not Detected
1,2-Dibromoethane (EDB)	7200	Not Detected	55000	Not Detected
Chlorobenzene	7200	Not Detected	33000	Not Detected
Ethyl Benzene	7200	150000	31000	660000
m,p-Xylene	7200	280000	31000	1200000
o-Xylene	7200	91000	31000	400000
Styrene	7200	Not Detected	31000	Not Detected
Bromoform	7200	Not Detected	74000	Not Detected
Cumene	7200	5500 J	35000	27000 J
1,1,2,2-Tetrachloroethane	7200	Not Detected	49000	Not Detected
Propylbenzene	7200	9400	35000	46000
4-Ethyltoluene	7200	31000	35000	150000
1,3,5-Trimethylbenzene	7200	8000	35000	39000
1,2,4-Trimethylbenzene	7200	25000	35000	120000
1,3-Dichlorobenzene	7200	Not Detected	43000	Not Detected
1,4-Dichlorobenzene	7200	Not Detected	43000	Not Detected
alpha-Chlorotoluene	7200	Not Detected	37000	Not Detected
1,2-Dichlorobenzene	7200	Not Detected	43000	Not Detected
1,2,4-Trichlorobenzene	29000	Not Detected	210000	Not Detected
Hexachlorobutadiene	29000	Not Detected	310000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

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

* "Do not use this data. Use all other data."



Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055A-09B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091125	Date of Collection:	8/31/10 3:22:00 PM
Dil. Factor:	289	Date of Analysis:	9/12/10 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1400	Not Detected	7100	Not Detected
Freon 114	1400	Not Detected	10000	Not Detected
Chloromethane	5800	Not Detected	12000	Not Detected
Vinyl Chloride	1400	Not Detected	3700	Not Detected
1,3-Butadiene	1400	Not Detected	3200	Not Detected
Bromomethane	1400	Not Detected	5600	Not Detected
Chloroethane	1400	Not Detected	3800	Not Detected
Freon 11	1400	Not Detected	8100	Not Detected
Ethanol	5800	Not Detected	11000	Not Detected
Freon 113	1400	Not Detected	11000	Not Detected
1,1-Dichloroethene	1400	Not Detected	5700	Not Detected
Acetone	5800	Not Detected	14000	Not Detected
2-Propanol	5800	Not Detected	14000	Not Detected
Carbon Disulfide	1400	Not Detected	4500	Not Detected
3-Chloropropene	5800	Not Detected	18000	Not Detected
Methylene Chloride	1400	Not Detected	5000	Not Detected
Methyl tert-butyl ether	1400	Not Detected	5200	Not Detected
trans-1,2-Dichloroethene	1400	Not Detected	5700	Not Detected
Hexane	1400	4800000 E	5100	17000000 E
1,1-Dichloroethane	1400	Not Detected	5800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1400	Not Detected	4300	Not Detected
cis-1,2-Dichloroethene	1400	Not Detected	5700	Not Detected
Tetrahydrofuran	1400	Not Detected	4300	Not Detected
Chloroform	1400	Not Detected	7000	Not Detected
1,1,1-Trichloroethane	1400	Not Detected	7900	Not Detected
Cyclohexane	1400	860000 "J"	5000	3000000 "J"
Carbon Tetrachloride	1400	Not Detected	9100	Not Detected
2,2,4-Trimethylpentane	1400	1200000 "J"	6800	5800000 "J"
Benzene	1400	150000 "J"	4600	490000 "J"
1,2-Dichloroethane	1400	Not Detected	5800	Not Detected
Heptane	1400	1000000 "J"	5900	4100000 "J"
Trichloroethene	1400	Not Detected	7800	Not Detected
1,2-Dichloropropane	1400	Not Detected	6700	Not Detected
1,4-Dioxane	5800	Not Detected	21000	Not Detected
Bromodichloromethane	1400	Not Detected	9700	Not Detected
cis-1,3-Dichloropropene	1400	Not Detected	6600	Not Detected
4-Methyl-2-pentanone	1400	Not Detected	5900	Not Detected
Toluene	1400	540000 "J"	5400	2000000 "J"
trans-1,3-Dichloropropene	1400	Not Detected	6600	Not Detected
1,1,2-Trichloroethane	1400	Not Detected	7900	Not Detected
Tetrachloroethene	1400	Not Detected	9800	Not Detected

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055ARI-09B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091125	Date of Collection:	8/31/10 3:22:00 PM	
Dil. Factor:	289	Date of Analysis:	9/12/10 12:45 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5800	Not Detected	24000	Not Detected
Dibromochloromethane	1400	Not Detected	12000	Not Detected
1,2-Dibromoethane (EDB)	1400	Not Detected	11000	Not Detected
Chlorobenzene	1400	Not Detected	6600	Not Detected
Ethyl Benzene	1400	220000 "J"	6300	960000 "J"
m,p-Xylene	1400	420000 "J"	6300	1800000 "J"
o-Xylene	1400	140000 "J"	6300	600000 "J"
Styrene	1400	Not Detected	6200	Not Detected
Bromoform	1400	Not Detected	15000	Not Detected
Cumene	1400	7800 "J"	7100	38000 "J"
1,1,2,2-Tetrachloroethane	1400	Not Detected	9900	Not Detected
Propylbenzene	1400	14000 "J"	7100	69000 "J"
4-Ethyltoluene	1400	46000 "J"	7100	230000 "J"
1,3,5-Trimethylbenzene	1400	14000 "J"	7100	66000 "J"
1,2,4-Trimethylbenzene	1400	39000 "J"	7100	190000 "J"
1,3-Dichlorobenzene	1400	Not Detected	8700	Not Detected
1,4-Dichlorobenzene	1400	Not Detected	8700	Not Detected
alpha-Chlorotoluene	1400	Not Detected	7500	Not Detected
1,2-Dichlorobenzene	1400	Not Detected	8700	Not Detected
1,2,4-Trichlorobenzene	5800	Not Detected	43000	Not Detected
Hexachlorobutadiene	5800	Not Detected	62000	Not Detected

E = Exceeds instrument calibration range.

Q = Exceeds Quality Control limits.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	135 Q	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055ARI-10A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091127	Date of Collection: 8/31/10 4:39:00 PM		
Dil. Factor:	82.3	Date of Analysis: 9/12/10 01:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	410	Not Detected	2000	Not Detected
Freon 114	410	Not Detected	2900	Not Detected
Chloromethane	1600	Not Detected	3400	Not Detected
Vinyl Chloride	410	Not Detected	1000	Not Detected
1,3-Butadiene	410	Not Detected	910	Not Detected
Bromomethane	410	Not Detected	1600	Not Detected
Chloroethane	410	Not Detected	1100	Not Detected
Freon 11	410	Not Detected	2300	Not Detected
Ethanol	1600	Not Detected	3100	Not Detected
Freon 113	410	Not Detected	3200	Not Detected
1,1-Dichloroethene	410	Not Detected	1600	Not Detected
Acetone	1600	Not Detected	3900	Not Detected
2-Propanol	1600	Not Detected	4000	Not Detected
Carbon Disulfide	410	Not Detected	1300	Not Detected
3-Chloropropene	1600	Not Detected	5200	Not Detected
Methylene Chloride	410	Not Detected	1400	Not Detected
Methyl tert-butyl ether	410	Not Detected	1500	Not Detected
trans-1,2-Dichloroethene	410	Not Detected	1600	Not Detected
Hexane	410	120000 "J"	1400	420000 "J"
1,1-Dichloroethane	410	Not Detected	1700	Not Detected
2-Butanone (Methyl Ethyl Ketone)	410	Not Detected	1200	Not Detected
cis-1,2-Dichloroethene	410	Not Detected	1600	Not Detected
Tetrahydrofuran	410	Not Detected	1200	Not Detected
Chloroform	410	Not Detected	2000	Not Detected
1,1,1-Trichloroethane	410	Not Detected	2200	Not Detected
Cyclohexane	410	160000 "J"	1400	540000 "J"
Carbon Tetrachloride	410	Not Detected	2600	Not Detected
2,2,4-Trimethylpentane	410	270000 "J"	1900	1300000 "J"
Benzene	410	27000 "J"	1300	86000 "J"
1,2-Dichloroethane	410	Not Detected	1700	Not Detected
Heptane	410	100000 "J"	1700	420000 "J"
Trichloroethene	410	Not Detected	2200	Not Detected
1,2-Dichloropropane	410	Not Detected	1900	Not Detected
1,4-Dioxane	1600	Not Detected	5900	Not Detected
Bromodichloromethane	410	Not Detected	2800	Not Detected
cis-1,3-Dichloropropene	410	Not Detected	1900	Not Detected
4-Methyl-2-pentanone	410	Not Detected	1700	Not Detected
Toluene	410	280 "J"	1600	1000 "J"
trans-1,3-Dichloropropene	410	Not Detected	1900	Not Detected
1,1,2-Trichloroethane	410	Not Detected	2200	Not Detected
Tetrachloroethene	410	Not Detected	2800	Not Detected

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055AR1-10A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091127	Date of Collection: 8/31/10 4:39:00 PM		
Dil. Factor:	82.3	Date of Analysis: 9/12/10 01:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	1600	Not Detected	6700	Not Detected
Dibromochloromethane	410	Not Detected	3500	Not Detected
1,2-Dibromoethane (EDB)	410	Not Detected	3200	Not Detected
Chlorobenzene	410	Not Detected	1900	Not Detected
Ethyl Benzene	410	Not Detected	1800	Not Detected
m,p-Xylene	410	360 J	1800	1600 J
o-Xylene	410	Not Detected	1800	Not Detected
Styrene	410	Not Detected	1800	Not Detected
Bromoform	410	Not Detected	4200	Not Detected
Cumene	410	1200 J	2000	6000 J
1,1,2,2-Tetrachloroethane	410	Not Detected	2800	Not Detected
Propylbenzene	410	1000 J	2000	5000 J
4-Ethyltoluene	410	Not Detected	2000	Not Detected
1,3,5-Trimethylbenzene	410	Not Detected	2000	Not Detected
1,2,4-Trimethylbenzene	410	Not Detected	2000	Not Detected
1,3-Dichlorobenzene	410	Not Detected	2500	Not Detected
1,4-Dichlorobenzene	410	Not Detected	2500	Not Detected
alpha-Chlorotoluene	410	Not Detected	2100	Not Detected
1,2-Dichlorobenzene	410	Not Detected	2500	Not Detected
1,2,4-Trichlorobenzene	1600	Not Detected	12000	Not Detected
Hexachlorobutadiene	1600	Not Detected	18000	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	146 Q	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009055AR1-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091106a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/11/10 12:07 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	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
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	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
1,4-Dioxane	2.0	Not Detected	7.2	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

Client Sample ID: Lab Blank

Lab ID#: 1009055AR1-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091106a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/11/10 12:07 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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
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
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009055AR1-11B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091108a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/11/10 07:03 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009055AR1-11B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091108a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/11/10 07:03 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1009055AR1-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 09:02 AM

Compound	%Recovery
Freon 12	88
Freon 114	94
Chloromethane	87
Vinyl Chloride	96
1,3-Butadiene	92
Bromomethane	92
Chloroethane	92
Freon 11	86
Ethanol	100
Freon 113	96
1,1-Dichloroethene	101
Acetone	88
2-Propanol	103
Carbon Disulfide	91
3-Chloropropene	102
Methylene Chloride	88
Methyl tert-butyl ether	112
trans-1,2-Dichloroethene	100
Hexane	103
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	100
Tetrahydrofuran	105
Chloroform	90
1,1,1-Trichloroethane	91
Cyclohexane	103
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	107
Benzene	96
1,2-Dichloroethane	85
Heptane	107
Trichloroethene	93
1,2-Dichloropropane	91
1,4-Dioxane	105
Bromodichloromethane	88
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	112
Toluene	100
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	98
Tetrachloroethene	101

Client Sample ID: CCV

Lab ID#: 1009055AR1-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 09:02 AM

Compound	%Recovery
2-Hexanone	112
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	103
Chlorobenzene	90
Ethyl Benzene	111
m,p-Xylene	111
o-Xylene	113
Styrene	113
Bromoform	101
Cumene	120
1,1,2,2-Tetrachloroethane	97
Propylbenzene	114
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	115
1,2,4-Trimethylbenzene	120
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	107
alpha-Chlorotoluene	130
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: CCV

Lab ID#: 1009055ARI-12B.

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 04:30 PM

Compound	%Recovery
Freon 12	107
Freon 114	110
Chloromethane	117
Vinyl Chloride	117
1,3-Butadiene	115
Bromomethane	114
Chloroethane	116
Freon 11	112
Ethanol	103
Freon 113	112
1,1-Dichloroethene	114
Acetone	112
2-Propanol	111
Carbon Disulfide	116
3-Chloropropene	120
Methylene Chloride	114
Methyl tert-butyl ether	123
trans-1,2-Dichloroethene	113
Hexane	113
1,1-Dichloroethane	114
2-Butanone (Methyl Ethyl Ketone)	117
cis-1,2-Dichloroethene	114
Tetrahydrofuran	114
Chloroform	111
1,1,1-Trichloroethane	111
Cyclohexane	114
Carbon Tetrachloride	113
2,2,4-Trimethylpentane	113
Benzene	111
1,2-Dichloroethane	114
Heptane	113
Trichloroethene	109
1,2-Dichloropropane	111
1,4-Dioxane	108
Bromodichloromethane	110
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	116
Toluene	108
trans-1,3-Dichloropropene	113
1,1,2-Trichloroethane	108
Tetrachloroethene	110

Client Sample ID: CCV

Lab ID#: 1009055ARI-12B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 04:30 PM

Compound	%Recovery
2-Hexanone	110
Dibromochloromethane	111
1,2-Dibromoethane (EDB)	110
Chlorobenzene	110
Ethyl Benzene	110
m,p-Xylene	108
o-Xylene	108
Styrene	112
Bromoform	112
Cumene	111
1,1,2,2-Tetrachloroethane	107
Propylbenzene	108
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	129
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	110

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1009055AR1-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 10:02 AM

Compound	%Recovery
Freon 12	93
Freon 114	100
Chloromethane	97
Vinyl Chloride	105
1,3-Butadiene	102
Bromomethane	102
Chloroethane	100
Freon 11	91
Ethanol	98
Freon 113	92
1,1-Dichloroethene	96
Acetone	91
2-Propanol	104
Carbon Disulfide	97
3-Chloropropene	106
Methylene Chloride	86
Methyl tert-butyl ether	116
trans-1,2-Dichloroethene	104
Hexane	110
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	105
cis-1,2-Dichloroethene	103
Tetrahydrofuran	108
Chloroform	92
1,1,1-Trichloroethane	96
Cyclohexane	110
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	112
Benzene	96
1,2-Dichloroethane	83
Heptane	108
Trichloroethene	93
1,2-Dichloropropane	92
1,4-Dioxane	107
Bromodichloromethane	92
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	113
Toluene	95
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	100
Tetrachloroethene	103

Client Sample ID: LCS

Lab ID#: 1009055ARI-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 10:02 AM

Compound	%Recovery
2-Hexanone	111
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	109
Chlorobenzene	93
Ethyl Benzene	116
m,p-Xylene	114
o-Xylene	118
Styrene	116
Bromoform	107
Cumene	123
1,1,2,2-Tetrachloroethane	102
Propylbenzene	117
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	122
1,2,4-Trimethylbenzene	127
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	140 Q
1,2-Dichlorobenzene	111
1,2,4-Trichlorobenzene	110
Hexachlorobutadiene	111

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCSD

Lab ID#: 1009055AR1-13AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 10:28 AM

Compound	%Recovery
Freon 12	91
Freon 114	98
Chloromethane	90
Vinyl Chloride	102
1,3-Butadiene	99
Bromomethane	100
Chloroethane	95
Freon 11	89
Ethanol	95
Freon 113	89
1,1-Dichloroethene	92
Acetone	87
2-Propanol	100
Carbon Disulfide	94
3-Chloropropene	102
Methylene Chloride	84
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	102
Hexane	107
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	102
Tetrahydrofuran	108
Chloroform	90
1,1,1-Trichloroethane	94
Cyclohexane	109
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	115
Benzene	99
1,2-Dichloroethane	85
Heptane	110
Trichloroethene	97
1,2-Dichloropropane	96
1,4-Dioxane	108
Bromodichloromethane	91
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	118
Toluene	98
trans-1,3-Dichloropropene	114
1,1,2-Trichloroethane	99
Tetrachloroethene	104

Client Sample ID: LCSD

Lab ID#: 1009055AR1-13AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d091104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 10:28 AM

Compound	%Recovery
2-Hexanone	113
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	111
Chlorobenzene	94
Ethyl Benzene	117
m,p-Xylene	117
o-Xylene	118
Styrene	117
Bromoform	103
Cumene	123
1,1,2,2-Tetrachloroethane	104
Propylbenzene	116
4-Ethyltoluene	116
1,3,5-Trimethylbenzene	124
1,2,4-Trimethylbenzene	127
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	132 Q
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	113

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1009055AR1-13B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 04:54 PM

Compound	%Recovery
Freon 12	104
Freon 114	108
Chloromethane	115
Vinyl Chloride	112
1,3-Butadiene	114
Bromomethane	109
Chloroethane	109
Freon 11	108
Ethanol	100
Freon 113	97
1,1-Dichloroethene	99
Acetone	103
2-Propanol	101
Carbon Disulfide	111
3-Chloropropene	112
Methylene Chloride	102
Methyl tert-butyl ether	115
trans-1,2-Dichloroethene	109
Hexane	108
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	107
Tetrahydrofuran	108
Chloroform	105
1,1,1-Trichloroethane	106
Cyclohexane	107
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	110
Benzene	107
1,2-Dichloroethane	108
Heptane	109
Trichloroethene	104
1,2-Dichloropropane	108
1,4-Dioxane	106
Bromodichloromethane	106
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	112
Toluene	100
trans-1,3-Dichloropropene	109
1,1,2-Trichloroethane	105
Tetrachloroethene	105

Client Sample ID: LCS

Lab ID#: 1009055AR1-13B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 04:54 PM

Compound	%Recovery
2-Hexanone	108
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	110
Chlorobenzene	107
Ethyl Benzene	107
m,p-Xylene	105
o-Xylene	104
Styrene	109
Bromoform	108
Cumene	104
1,1,2,2-Tetrachloroethane	106
Propylbenzene	104
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	118
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	116
Hexachlorobutadiene	126

Container Type: NA - Not Applicable

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

Client Sample ID: LCSD

Lab ID#: 1009055AR1-13BB

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091106	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 06:04 PM

Compound	%Recovery
Freon 12	104
Freon 114	107
Chloromethane	114
Vinyl Chloride	113
1,3-Butadiene	111
Bromomethane	111
Chloroethane	108
Freon 11	107
Ethanol	97
Freon 113	96
1,1-Dichloroethene	98
Acetone	103
2-Propanol	98
Carbon Disulfide	110
3-Chloropropene	110
Methylene Chloride	102
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	108
Hexane	108
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	108
Tetrahydrofuran	108
Chloroform	105
1,1,1-Trichloroethane	106
Cyclohexane	107
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	110
Benzene	107
1,2-Dichloroethane	109
Heptane	109
Trichloroethene	106
1,2-Dichloropropane	108
1,4-Dioxane	106
Bromodichloromethane	106
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	110
Toluene	101
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	104
Tetrachloroethene	104

Client Sample ID: LCSD

Lab ID#: 1009055AR1-13BB

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091106	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/11/10 06:04 PM

Compound	%Recovery
2-Hexanone	105
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	109
Chlorobenzene	106
Ethyl Benzene	106
m,p-Xylene	105
o-Xylene	103
Styrene	109
Bromoform	108
Cumene	105
1,1,2,2-Tetrachloroethane	106
Propylbenzene	105
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	122
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	117
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	119
Hexachlorobutadiene	119

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



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) 487-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Theresa (Sitt) Adams
Collected by: (Print and Sign) Michael Miller
Company UPS Corporation Email thomas.adams@usps.com
Address 1001 Highway 91, Suite D.W. 500 City St. Louis State MO Zip 63110
Phone 314 479-0100 Fax 314-479-0102

Project Info:
P.O. # _____
Project # _____
Project Name _____
Turn Around Time:
☐ Normal
☐ Rush
specify _____
Lab Use Only:
Presealured by _____
Date: _____
Pressurization Gas: _____
N₂ He

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
01A	VMP-8-5-083010	3570	08/30/10	0957/1034	MDA VPD 90-15 / ASTM D1744	Initial Final Receipt Final
02A	VMP-8-9-5-083010	3755	08/30/10	1110/1140	"	30 29 6
03A	VMP-8-9-5-083010-DUP	3027	08/30/10	1110/1148	"	30 6
04A	VMP-8-23.5-083010	3501	08/30/10	1225/1308	"	30 8
05A	VMP-1-23.5-083010	2492	08/30/10	1452/1523	"	30 8
06A	VMP-2-5-083110	2112	08/31/10	1057/1115	"	28 7
07A	VMP-2-8.5-083110	2173	08/31/10	1155/1235	"	30 8
08A	VMP-2-22-083110	2175	08/31/10	1313/1351	"	30 8.5
09A	VMP-4-23.5-083110	2185	08/31/10	1455/1522	"	30 7.5
10A	VMP-7-29.5-083110	3105	08/31/10	1615/1639	"	29 5.5

Relinquished by: (signature) [Signature] Date/Time 9/1/10 1730
Relinquished by: (signature) [Signature] Date/Time _____
Relinquished by: (signature) [Signature] Date/Time _____
Notes: -14 day hold time
MDA and RL
Repair results below
Level IV ECV
9/21/10 915

Received by: (signature) [Signature] Date/Time _____
Received by: (signature) [Signature] Date/Time _____
Received by: (signature) [Signature] Date/Time _____
Shipper Name Fed Ex Air Bill # _____
Temp (°C) MA Condition Good
Custody Seals Intact? Yes No None
Work Order # 1000055

9/16/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name:
Project #:
Workorder #: 1009055B

Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/2/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

WORK ORDER #: 1009055B

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	
DATE RECEIVED:	09/02/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/16/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP - 8 - 5 - 083010 ✓	Modified ASTM D-1946	7.5 "Hg	15 psi
02A	VMP - 8 - 9.5 - 083010 ✓	Modified ASTM D-1946	5.0 "Hg	15 psi
03A	VMP - 8 - 9.5 - 083010	Modified ASTM D-1946	5.5 "Hg	15 psi
04A	VMP - 8 - 23.5 - 083010 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
05A	VMP - 1 - 23.5 - 083010 ✓	Modified ASTM D-1946	7.5 "Hg	15 psi
06A	VMP - 2 - 5 - 083110 ✓	Modified ASTM D-1946	7.5 "Hg	15 psi
07A	VMP - 2 - 8.5 - 083110 ✓	Modified ASTM D-1946	8.0 "Hg	15 psi
08A	VMP - 2 - 22 - 083110 ✓	Modified ASTM D-1946	8.5 "Hg	15 psi
09A	VMP - 4 - 23.5 - 083110	Modified ASTM D-1946	9.0 "Hg	15 psi
10A	VMP - 7 - 29.5 - 083110 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
11A	Lab Blank	Modified ASTM D-1946	NA	NA
11B	Lab Blank	Modified ASTM D-1946	NA	NA
12A	LCS	Modified ASTM D-1946	NA	NA
12AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sandra A. Freeman

DATE: 09/16/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009055B

Ten 1 Liter Summa Canister samples were received on September 02, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.27	13
Nitrogen	0.27	80
Methane	0.00027	0.00032
Carbon Dioxide	0.027	7.3
Helium	0.13	0.039 J

Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.51	12
Nitrogen	0.51	80
Methane	0.00051	0.000048 J
Carbon Dioxide	0.051	8.4
Helium	0.25	0.0 ND <i>0.015 J</i>

Client Sample ID: VMP - 8 - 9.5 - 083010 - *Dup*

Lab ID#: 1009055B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	9.8
Nitrogen	0.25	81
Methane	0.00025	0.000026 J
Carbon Dioxide	0.025	9.1
Helium	0.12	0.024 J

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	9.9

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP - 8 - 23.5 - 083010

Lab ID#: 1009055B-04A

Nitrogen	0.26	81
Methane	0.00026	0.000032 J
Carbon Dioxide	0.026	9.3
Helium	0.13	0.036 J

Client Sample ID: VMP - 1 - 23.5 - 083010

Lab ID#: 1009055B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.27	1.6
Nitrogen	0.27	78
Methane	0.00027	9.7
Carbon Dioxide	0.027	8.1
Ethane	0.0027	0.0052
Helium	0.13	0.032 J

Client Sample ID: VMP - 2 - 5 - 083110

Lab ID#: 1009055B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.27	3.2
Nitrogen	0.27	85
Methane	0.00027	1.6
Carbon Dioxide	0.027	10
Ethane	0.0027	0.00086 J
Helium	0.13	0.039 J

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	1.4
Nitrogen	0.28	82

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055B-07A

Methane	0.00028	4.5
Carbon Dioxide	0.028	11
Ethane	0.0028	0.0025 J
Helium	0.14	0.025 J

Client Sample ID: VMP - 2 - 22 - 083110

Lab ID#: 1009055B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	1.4
Nitrogen	0.28	79
Methane	0.00028	8.0
Carbon Dioxide	0.028	10
Ethane	0.0028	0.0040
Helium	0.14	0.041 J

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055B-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.29	0.81
Nitrogen	0.29	38
Methane	0.00058	43
Carbon Dioxide	0.029	6.1
Ethane	0.0029	0.018
Helium	0.14	0.021 J

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055B-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	1.3
Nitrogen	0.25	79

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055B-10A

Methane	0.00025	4.1
Carbon Dioxide	0.025	15
Ethane	0.0025	0.00058 J
Helium	0.12	0.00058 J

0.00058 J

Client Sample ID: VMP - 8 - 5 - 083010

Lab ID#: 1009055B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091340	Date of Collection:	8/30/10 10:34:00 AM
Dil. Factor:	2.69	Date of Analysis:	9/13/10 05:17 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.27	13	
Nitrogen	0.27	80	
Carbon Monoxide	0.027	Not Detected	
Methane	0.00027	0.00032	
Carbon Dioxide	0.027	7.3	
Ethane	0.0027	Not Detected	
Ethene	0.0027	Not Detected	
Helium	0.13	0.039 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP - 8 - 9.5 - 083010

Lab ID#: 1009055B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091353	Date of Collection: 8/30/10 11:40:00 AM
Dil. Factor:	5.06	Date of Analysis: 9/13/10 10:09 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.51	12
Nitrogen	0.51	80
Carbon Monoxide	0.051	Not Detected
Methane	0.00051	0.000048 J
Carbon Dioxide	0.051	8.4
Ethane	0.0051	Not Detected
Ethene	0.0051	Not Detected
Helium	0.25	0.0 ND 0.013 J"

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 8 - 9.5 - 083010 "Dup"

Lab ID#: 1009055B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091343	Date of Collection:	8/30/10 11:48:00 AM
Dil. Factor:	2.47	Date of Analysis:	9/13/10 06:27 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	9.8	
Nitrogen	0.25	81	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00025	0.000026 J	
Carbon Dioxide	0.025	9.1	
Ethane	0.0025	Not Detected	
Ethene	0.0025	Not Detected	
Helium	0.12	0.024 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VNP - 8 - 23.5 - 083010

Lab ID#: 1009055B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091344	Date of Collection:	8/30/10 1:08:00 PM
Dil. Factor:	2.64	Date of Analysis:	9/13/10 06:49 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	9.9	
Nitrogen	0.26	81	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	0.000032 J	
Carbon Dioxide	0.026	9.3	
Ethane	0.0026	Not Detected	
Ethene	0.0026	Not Detected	
Helium	0.13	0.036 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 1 - 23.5 - 083010

Lab ID#: 1009055B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091345	Date of Collection:	8/30/10 3:23:00 PM
Dil. Factor:	2.69	Date of Analysis:	9/13/10 07:10 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.27	1.6	
Nitrogen	0.27	78	
Carbon Monoxide	0.027	Not Detected	
Methane	0.00027	9.7	
Carbon Dioxide	0.027	8.1	
Ethane	0.0027	0.0052	
Ethene	0.0027	Not Detected	
Helium	0.13	0.032 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 2 - 5 - 083110

Lab ID#: 1009055B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091346	Date of Collection:	8/31/10 11:15:00 AM
Dil. Factor:	2.69	Date of Analysis:	9/13/10 07:35 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.27	3.2	
Nitrogen	0.27	85	
Carbon Monoxide	0.027	Not Detected	
Methane	0.00027	1.6	
Carbon Dioxide	0.027	10	
Ethane	0.0027	0.00086 J	
Ethene	0.0027	Not Detected	
Helium	0.13	0.039 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 2 - 8.5 - 083110

Lab ID#: 1009055B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091347	Date of Collection:	8/31/10 12:35:00 PM
Dil. Factor:	2.76	Date of Analysis:	9/13/10 07:57 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.28	1.4	
Nitrogen	0.28	82	
Carbon Monoxide	0.028	Not Detected	
Methane	0.00028	4.5	
Carbon Dioxide	0.028	11	
Ethane	0.0028	0.0025 J	
Ethene	0.0028	Not Detected	
Helium	0.14	0.025 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 2 - 22 - 083110

Lab ID#: 1009055B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091348	Date of Collection:	8/31/10 1:51:00 PM
Dil. Factor:	2.82	Date of Analysis:	9/13/10 08:20 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.28	1.4	
Nitrogen	0.28	79	
Carbon Monoxide	0.028	Not Detected	
Methane	0.00028	8.0	
Carbon Dioxide	0.028	10	
Ethane	0.0028	0.0040	
Ethene	0.0028	Not Detected	
Helium	0.14	0.041 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 4 - 23.5 - 083110

Lab ID#: 1009055B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091349	Date of Collection:	8/31/10 3:22:00 PM
Dil. Factor:	2.89	Date of Analysis:	9/13/10 08:42 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.29	0.81	
Nitrogen	0.29	38	
Carbon Monoxide	0.029	Not Detected	
Methane	0.00058	43	
Carbon Dioxide	0.029	6.1	
Ethane	0.0029	0.018	
Ethene	0.0029	Not Detected	
Helium	0.14	0.0 ND	0.02111

J = Estimated value.

Methane was reported from file # 9091350 analyzed on 9/13/10 at a dilution factor of 5.78.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP - 7 - 29.5 - 083110

Lab ID#: 1009055B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091351	Date of Collection:	8/31/10 4:39:00 PM
Dil. Factor:	2.47	Date of Analysis:	9/13/10 09:26 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	1.3	
Nitrogen	0.25	79	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00025	4.1	
Carbon Dioxide	0.025	15	
Ethane	0.0025	0.00058 J	
Ethene	0.0025	Not Detected	
Helium	0.12	0.0 ND	0.019 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: Lab Blank

Lab ID#: 1009055B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091337a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/13/10 04:07 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.10	0.017 J	
Nitrogen	0.10	0.083 J	
Carbon Monoxide	0.010	Not Detected	
Methane	0.00010	Not Detected	
Carbon Dioxide	0.010	Not Detected	
Ethane	0.0010	Not Detected	
Ethene	0.0010	Not Detected	

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009055B-11B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091336ba	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/13/10 03:44 PM
Compound	Rpt. Limit (%)	Amount (%)	
Helium	0.050	0.0042 J	

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1009055B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091335	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/13/10 03:20 PM

Compound	%Recovery
Oxygen	92
Nitrogen	96
Carbon Monoxide	99
Methane	93
Carbon Dioxide	96
Ethane	94
Ethene	93
Helium	86

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 1009055B-12AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091354	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/13/10 10:31 PM

Compound	%Recovery
Oxygen	92
Nitrogen	96
Carbon Monoxide	98
Methane	93
Carbon Dioxide	96
Ethane	94
Ethene	94
Helium	86

Container Type: NA - Not Applicable



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) 487-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page of

Project Manager Thomas (Scott) Adams
Collected by: (Print and Sign) M. L. Miller
Company ULS Corporation Email thomas.adams@uls.com
Address 180 Blue Ravine Road, Suite B, Folsom, CA 95630 State CA Zip 95630
Phone 916-985-1000 Fax 916-985-1020

Project Info:
P.O. #
Project #
Project Name
Turn Around Time:
Normal
Rush
Lab Use Only
Pressurized by:
Date
Pressurization Gas:
N2 He

Table with 7 columns: Lab ID, Field Sample I.D. (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum. Rows include sample IDs 01A through 10A with corresponding collection data and analysis requests.

Relinquished by: (signature) Date/Time
Relinquished by: (signature) Date/Time
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time
Received by: (signature) Date/Time
Received by: (signature) Date/Time
Shipper Name
Air Bill #
Temp (°C)
Condition
Custody Seals Intact?
Yes No
Work Order #

Roxana Vapor Data Review

Laboratory SDG: 1009107

Reviewer: Elizabeth Kunkel

Date Reviewed: 9/21/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-17.5-090110	VMP-19.5-090110
VMP-16-5-090210	VMP-16-13.5-090210
VMP-16-13.5-090210-Dup	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Although not indicated in the laboratory case narrative, TO-15 analytes and natural gases were detected in the method blanks. TO-15 LCS/LCSD recoveries and one TO-15 LCS/LCSD RPD were outside evaluation criteria. The compounds, hexane and oxygen, were qualified in field duplicate pair, VMP-16-13.5-090210/VMP-16-13.5-090210-Dup due to field duplicate RPD outside evaluation criteria. These issues are addressed further in the following sections below.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1009107C-03A	TO-15	Freon 11	0.080 ppbv/0.45 $\mu\text{g}/\text{m}^3$
1009107C-03A	TO-15	Carbon disulfide	0.16 ppbv/0.52 $\mu\text{g}/\text{m}^3$
1009107C-03A	TO-15	Methylene chloride	0.18 ppbv/0.63 $\mu\text{g}/\text{m}^3$
1009107C-03A	TO-15	1,1-Dichloroethane	0.077 ppbv/0.31 $\mu\text{g}/\text{m}^3$

Blank ID	Parameter	Analyte	Concentration/Amount
1009107C-03A	TO-15	Chloroform	0.098 ppbv/0.48 µg/m ³
1009107C-03A	TO-15	1,1,1-Trichloroethane	0.065 ppbv/0.36 µg/m ³
1009107C-03A	TO-15	2,2,4-Trimethylpentane	0.11 ppbv/0.50 µg/m ³
1009107C-03A	TO-15	Benzene	0.10 ppbv/0.33 µg/m ³
1009107C-03A	TO-15	1,2-Dichloroethane	0.12 ppbv/0.47 µg/m ³
1009107C-03A	TO-15	Heptane	0.12 ppbv/0.48 µg/m ³
1009107C-03A	TO-15	Trichloroethene	0.14 ppbv/0.73 µg/m ³
1009107C-03A	TO-15	1,2-Dichloropropane	0.099 ppbv/0.46 µg/m ³
1009107C-03A	TO-15	Bromodichloromethane	0.11 ppbv/0.72 µg/m ³
1009107C-03A	TO-15	Toluene	0.11 ppbv/0.42 µg/m ³
1009107C-03A	TO-15	Tetrachloroethene	0.13 ppbv/0.87 µg/m ³
1009107C-03A	TO-15	1,2-Dibromomethane	0.13 ppbv/0.99 µg/m ³
1009107C-03A	TO-15	Chlorobenzene	0.17 ppbv/0.78 µg/m ³
1009107C-03A	TO-15	Ethyl benzene	0.088 ppbv/0.38 µg/m ³
1009107C-03A	TO-15	Cumene	0.15 ppbv/0.75 µg/m ³
1009107C-03A	TO-15	1,1,2,2-Tetrachloroethane	0.19 ppbv/1.3 µg/m ³
1009107C-03A	TO-15	Propylbenzene	0.12 ppbv/0.59 µg/m ³
1009107C-03A	TO-15	4-Ethyltoluene	0.12 ppbv/0.57 µg/m ³
1009107C-03A	TO-15	1,3,5-Trimethylbenzene	0.12 ppbv/0.61 µg/m ³
1009107C-03A	TO-15	1,2,4-Trimethylbenzene	0.13 ppbv/0.64 µg/m ³
1009107C-03A	TO-15	1,3-Dichlorobenzene	0.29 ppbv/1.7 µg/m ³
1009107C-03A	TO-15	1,4-Dichlorobenzene	0.28 ppbv/1.7 µg/m ³
1009107C-03A	TO-15	alpha-Chlorotoluene	0.17 ppbv/0.88 µg/m ³
1009107C-03A	TO-15	1,2-Dichlorobenzene	0.30 ppbv/1.8 µg/m ³
1009107C-03A	TO-15	1,2,4-Trichlorobenzene	0.72 ppbv/5.3 µg/m ³
1009107C-03A	TO-15	Hexachlorobutadiene	0.56 ppbv/6.0 µg/m ³
1009107A-06A	TO-15	Freon 113	13 ppbv/24 µg/m ³
1009107A-06A	TO-15	Toluene	1.4 ppbv/5.2 µg/m ³
1009107A-06A	TO-15	<i>m,p</i> -Xylenes	1.8 ppbv/7.6 µg/m ³
1009107A-06A	TO-15	<i>o</i> -Xylenes	0.95 ppbv/4.1 µg/m ³
1009107A-06A	TO-15	4-Ethyltoluene	0.99 ppbv/4.8 µg/m ³
1009107A-06A	TO-15	1,2,4-Trimethylbenzene	0.99 ppbv/4.9 µg/m ³
1009107B-06A	Natural gases	Oxygen	0.022%
1009107B-06A	Natural gases	Nitrogen	0.088%
1009107B-06B	Natural gases	Helium	0.0045%
1009107B-06C	Natural gases	Oxygen	0.013%
1009107B-06C	Natural gases	Nitrogen	0.074%
1009107B-06C	Natural gases	Methane	0.000029%
1009107B-06D	Natural gases	Helium	0.0045%

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-19-5-090110	TO-15	Freon 11	-	U
VMP-19-5-090110	TO-15	Carbon disulfide	-	U
VMP-19-5-090110	TO-15	Methylene chloride	-	U
VMP-19-5-090110	TO-15	Tetrachloroethene	-	U
VMP-19-5-090110	TO-15	Chlorobenzene	-	U

Sample ID	Parameter	Analyte	New/Reporting Limit (RL)	Qualification
VMP-19-5-090110	TO-15	Propylbenzene	-	U
VMP-19-5-090110	TO-15	1,2,4-Trimethylbenzene	-	U
VMP-19-5-090110	TO-15	1,3-Dichlorobenzene	-	U
VMP-19-5-090110	TO-15	1,4-Dichlorobenzene	-	U
VMP-19-5-090110	TO-15	1,2,4-Trichlorobenzene	-	U
VMP-17-5-090110	TO-15	Freon 11	-	U
VMP-17-5-090110	TO-15	Carbon disulfide	-	U
VMP-17-5-090110	TO-15	Tetrachloroethene	-	U
VMP-17-5-090110	TO-15	Chlorobenzene	-	U
VMP-17-5-090110	TO-15	1,2,4-Trichlorobenzene	-	U
VMP-17-5-090110	Natural gases	Methane	-	U
VMP-16-13.5-090210	Natural gases	Helium	-	U
VMP-16-13.5-090210-Dup	Natural gases	Helium	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD-ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
1009107C-5A/ 1009107C-05AA	TO-15	2,2,4-Trimethylpentane	132/141	6	60-140/25
1009107C-5A/ 1009107C-05AA	TO-15	2-Hexanone	133/143	7	60-140/25
1009107C-5A/ 1009107C-05AA	TO-15	Ethylbenzene	132/137	4	70-130/25
1009107C-5A/ 1009107C-05AA	TO-15	m,p-Xylenes	133/139	4	70-130/25
1009107C-5A/ 1009107C-05AA	TO-15	o-Xylenes	94/133	34	70-130/25
1009107C-5A/ 1009107C-05AA	TO-15	1,2,4-Trichlorobenzene	66/80	19	70-130/25
1009107C-5A/ 1009107C-05AA	TO-15	Hexachlorobutadiene	69/81	16	70-130/25

Analytical data that required qualification based on LCS data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
VMP-19-5-090110	TO-15	2,2,4-Trimethylpentane	J
VMP-19-5-090110	TO-15	2-Hexanone	J
VMP-19-5-090110	TO-15	Ethylbenzene	J
VMP-19-5-090110	TO-15	<i>m,p</i> -Xylenes	J
VMP-19-5-090110	TO-15	<i>o</i> -Xylenes	J
VMP-19-5-090110	TO-15	1,2,4-Trichlorobenzene	UJ
VMP-19-5-090110	TO-15	Hexachlorobutadiene	UJ
VMP-17-5-090110	TO-15	2,2,4-Trimethylpentane	J
VMP-17-5-090110	TO-15	Ethylbenzene	J
VMP-17-5-090110	TO-15	<i>m,p</i> -Xylenes	J
VMP-17-5-090110	TO-15	<i>o</i> -Xylenes	J
VMP-17-5-090110	TO-15	1,2,4-Trichlorobenzene	UJ
VMP-17-5-090110	TO-15	Hexachlorobutadiene	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
VMP-16-13.5-090210	VMP-16-13.5-090210-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
VMP-16-13.5-090210	VMP-16-13.5-090210-Dup	TO-15	Hexane	35	J
VMP-16-13.5-090210	VMP-16-13.5-090210-Dup	Natural gases	Oxygen	88	J

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

9/20/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009107A

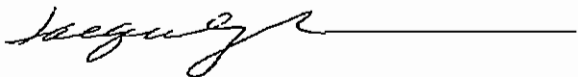
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/3/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/21/2010

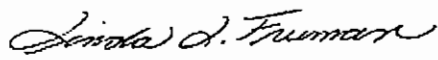
WORK ORDER #: 1009107A

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxana Dissolved Phase
DATE RECEIVED:	09/03/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/20/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
03A	VMP-16-5-090210 ✓	Modified TO-15	4.5 "Hg	15 psi
04A	VMP-16-13.5-090210 ✓	Modified TO-15	5.5 "Hg	15 psi
05A	VMP-16-13.5-090210-DUP ✓	Modified TO-15	5.5 "Hg	15 psi
06A	Lab Blank	Modified TO-15	NA	NA
07A	CCV	Modified TO-15	NA	NA
08A	LCS	Modified TO-15	NA	NA
08AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 09/20/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009107A**

Three 1 Liter Summa Canister samples were received on September 03, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-16-5-090210

Lab ID#: 1009107A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	2400	750 J	8600	2700 J
Hexane	2400	1800 J	8400	6300 J
Cyclohexane	2400	47000	8200	160000
2,2,4-Trimethylpentane	2400	2000000	11000	9300000
Benzene	2400	5400	7600	17000
Heptane	2400	3400	9800	14000
Ethyl Benzene	2400	2900	10000	12000
m,p-Xylene	2400	1200 J	10000	5400 J
Cumene	2400	2800	12000	14000
Propylbenzene	2400	4100	12000	20000
4-Ethyltoluene	2400	510 J	12000	2500 J
1,2,4-Trimethylbenzene	2400	480 J	12000	2300 J

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	9900	1500 J	23000	3600 J
Methylene Chloride	2500	620 J	8600	2100 J
Methyl tert-butyl ether	2500	810 J	8900	2900 J
Hexane	2500	1900 J	8700	6600 J
Cyclohexane	2500	44000	8500	150000
2,2,4-Trimethylpentane	2500	1800000	12000	8200000
Benzene	2500	5200	7900	17000
Heptane	2500	3100	10000	13000
Toluene	2500	360 J	9300	1400 J
Ethyl Benzene	2500	3600	11000	15000
m,p-Xylene	2500	1500 J	11000	6600 J
Cumene	2500	3100	12000	15000
Propylbenzene	2500	4900	12000	24000
4-Ethyltoluene	2500	680 J	12000	3400 J

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107A-04A

1,3,5-Trimethylbenzene	2500	350 J	12000	1700 J
1,2,4-Trimethylbenzene	2500	720 J	12000	3600 J

Client Sample ID: VMP-16-13.5-090210-DUP

Lab ID#: 1009107A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	2500	870 J	8900	3100 J
Hexane	2500	2700 J	8700	9700 J
Cyclohexane	2500	41000	8500	140000
2,2,4-Trimethylpentane	2500	1700000	12000	8000000
Benzene	2500	5100	7900	16000
Heptane	2500	3000	10000	12000
Toluene	2500	420 J	9300	1600 J
Ethyl Benzene	2500	3500	11000	15000
m,p-Xylene	2500	1400 J	11000	6100 J
Cumene	2500	3300	12000	16000
Propylbenzene	2500	4800	12000	23000
4-Ethyltoluene	2500	600 J	12000	2900 J
1,2,4-Trimethylbenzene	2500	600 J	12000	3000 J

Client Sample ID: VMP-16-5-090210

Lab ID#: 1009107A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090813	Date of Collection:	9/2/10 12:12:00 PM	
Dil. Factor:	476	Date of Analysis:	9/8/10 11:40 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2400	Not Detected	12000	Not Detected
Freon 114	2400	Not Detected	17000	Not Detected
Chloromethane	9500	Not Detected	20000	Not Detected
Vinyl Chloride	2400	Not Detected	6100	Not Detected
1,3-Butadiene	2400	Not Detected	5300	Not Detected
Bromomethane	2400	Not Detected	9200	Not Detected
Chloroethane	2400	Not Detected	6300	Not Detected
Freon 11	2400	Not Detected	13000	Not Detected
Ethanol	9500	Not Detected	18000	Not Detected
Freon 113	2400	Not Detected	18000	Not Detected
1,1-Dichloroethene	2400	Not Detected	9400	Not Detected
Acetone	9500	Not Detected	23000	Not Detected
2-Propanol	9500	Not Detected	23000	Not Detected
Carbon Disulfide	2400	Not Detected	7400	Not Detected
3-Chloropropene	9500	Not Detected	30000	Not Detected
Methylene Chloride	2400	Not Detected	8300	Not Detected
Methyl tert-butyl ether	2400	750 J	8600	2700 J
trans-1,2-Dichloroethene	2400	Not Detected	9400	Not Detected
Hexane	2400	1800 J	8400	6300 J
1,1-Dichloroethane	2400	Not Detected	9600	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2400	Not Detected	7000	Not Detected
cis-1,2-Dichloroethene	2400	Not Detected	9400	Not Detected
Tetrahydrofuran	2400	Not Detected	7000	Not Detected
Chloroform	2400	Not Detected	12000	Not Detected
1,1,1-Trichloroethane	2400	Not Detected	13000	Not Detected
Cyclohexane	2400	47000	8200	160000
Carbon Tetrachloride	2400	Not Detected	15000	Not Detected
2,2,4-Trimethylpentane	2400	2000000	11000	9300000
Benzene	2400	5400	7600	17000
1,2-Dichloroethane	2400	Not Detected	9600	Not Detected
Heptane	2400	3400	9800	14000
Trichloroethene	2400	Not Detected	13000	Not Detected
1,2-Dichloropropane	2400	Not Detected	11000	Not Detected
1,4-Dioxane	9500	Not Detected	34000	Not Detected
Bromodichloromethane	2400	Not Detected	16000	Not Detected
cis-1,3-Dichloropropene	2400	Not Detected	11000	Not Detected
4-Methyl-2-pentanone	2400	Not Detected	9700	Not Detected
Toluene	2400	Not Detected	9000	Not Detected
trans-1,3-Dichloropropene	2400	Not Detected	11000	Not Detected
1,1,2-Trichloroethane	2400	Not Detected	13000	Not Detected
Tetrachloroethene	2400	Not Detected	16000	Not Detected

Client Sample ID: VMP-16-5-090210

Lab ID#: 1009107A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090813	Date of Collection: 9/2/10 12:12:00 PM		
Dil. Factor:	476	Date of Analysis: 9/8/10 11:40 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	9500	Not Detected	39000	Not Detected
Dibromochloromethane	2400	Not Detected	20000	Not Detected
1,2-Dibromoethane (EDB)	2400	Not Detected	18000	Not Detected
Chlorobenzene	2400	Not Detected	11000	Not Detected
Ethyl Benzene	2400	2900	10000	12000
m,p-Xylene	2400	1200 J	10000	5400 J
o-Xylene	2400	Not Detected	10000	Not Detected
Styrene	2400	Not Detected	10000	Not Detected
Bromoform	2400	Not Detected	25000	Not Detected
Cumene	2400	2800	12000	14000
1,1,2,2-Tetrachloroethane	2400	Not Detected	16000	Not Detected
Propylbenzene	2400	4100	12000	20000
4-Ethyltoluene	2400	510 J	12000	2500 J
1,3,5-Trimethylbenzene	2400	Not Detected	12000	Not Detected
1,2,4-Trimethylbenzene	2400	480 J	12000	2300 J
1,3-Dichlorobenzene	2400	Not Detected	14000	Not Detected
1,4-Dichlorobenzene	2400	Not Detected	14000	Not Detected
alpha-Chlorotoluene	2400	Not Detected	12000	Not Detected
1,2-Dichlorobenzene	2400	Not Detected	14000	Not Detected
1,2,4-Trichlorobenzene	9500	Not Detected	71000	Not Detected
Hexachlorobutadiene	9500	Not Detected	100000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090814	Date of Collection: 9/2/10 1:30:00 PM		
Dil. Factor:	494	Date of Analysis: 9/9/10 12:15 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2500	Not Detected	12000	Not Detected
Freon 114	2500	Not Detected	17000	Not Detected
Chloromethane	9900	Not Detected	20000	Not Detected
Vinyl Chloride	2500	Not Detected	6300	Not Detected
1,3-Butadiene	2500	Not Detected	5500	Not Detected
Bromomethane	2500	Not Detected	9600	Not Detected
Chloroethane	2500	Not Detected	6500	Not Detected
Freon 11	2500	Not Detected	14000	Not Detected
Ethanol	9900	Not Detected	19000	Not Detected
Freon 113	2500	Not Detected	19000	Not Detected
1,1-Dichloroethene	2500	Not Detected	9800	Not Detected
Acetone	9900	1500 J	23000	3600 J
2-Propanol	9900	Not Detected	24000	Not Detected
Carbon Disulfide	2500	Not Detected	7700	Not Detected
3-Chloropropene	9900	Not Detected	31000	Not Detected
Methylene Chloride	2500	620 J	8600	2100 J
Methyl tert-butyl ether	2500	810 J	8900	2900 J
trans-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Hexane	2500	1900 J	8700	6600 J
1,1-Dichloroethane	2500	Not Detected	10000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2500	Not Detected	7300	Not Detected
cis-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Tetrahydrofuran	2500	Not Detected	7300	Not Detected
Chloroform	2500	Not Detected	12000	Not Detected
1,1,1-Trichloroethane	2500	Not Detected	13000	Not Detected
Cyclohexane	2500	44000	8500	150000
Carbon Tetrachloride	2500	Not Detected	16000	Not Detected
2,2,4-Trimethylpentane	2500	1800000	12000	8200000
Benzene	2500	5200	7900	17000
1,2-Dichloroethane	2500	Not Detected	10000	Not Detected
Heptane	2500	3100	10000	13000
Trichloroethene	2500	Not Detected	13000	Not Detected
1,2-Dichloropropane	2500	Not Detected	11000	Not Detected
1,4-Dioxane	9900	Not Detected	36000	Not Detected
Bromodichloromethane	2500	Not Detected	16000	Not Detected
cis-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
4-Methyl-2-pentanone	2500	Not Detected	10000	Not Detected
Toluene	2500	360 J	9300	1400 J
trans-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
1,1,2-Trichloroethane	2500	Not Detected	13000	Not Detected
Tetrachloroethene	2500	Not Detected	17000	Not Detected

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090814	Date of Collection: 9/2/10 1:30:00 PM		
Dil. Factor:	494	Date of Analysis: 9/9/10 12:15 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	9900	Not Detected	40000	Not Detected
Dibromochloromethane	2500	Not Detected	21000	Not Detected
1,2-Dibromoethane (EDB)	2500	Not Detected	19000	Not Detected
Chlorobenzene	2500	Not Detected	11000	Not Detected
Ethyl Benzene	2500	3600	11000	15000
m,p-Xylene	2500	1500 J	11000	6600 J
o-Xylene	2500	Not Detected	11000	Not Detected
Styrene	2500	Not Detected	10000	Not Detected
Bromoform	2500	Not Detected	26000	Not Detected
Cumene	2500	3100	12000	15000
1,1,2,2-Tetrachloroethane	2500	Not Detected	17000	Not Detected
Propylbenzene	2500	4900	12000	24000
4-Ethyltoluene	2500	680 J	12000	3400 J
1,3,5-Trimethylbenzene	2500	350 J	12000	1700 J
1,2,4-Trimethylbenzene	2500	720 J	12000	3600 J
1,3-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,4-Dichlorobenzene	2500	Not Detected	15000	Not Detected
alpha-Chlorotoluene	2500	Not Detected	13000	Not Detected
1,2-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,2,4-Trichlorobenzene	9900	Not Detected	73000	Not Detected
Hexachlorobutadiene	9900	Not Detected	100000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VMP-16-13.5-090210-DUP

Lab ID#: 1009107A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090815	Date of Collection: 9/2/10 1:34:00 PM		
Dil. Factor:	494	Date of Analysis: 9/9/10 12:45 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2500	Not Detected	12000	Not Detected
Freon 114	2500	Not Detected	17000	Not Detected
Chloromethane	9900	Not Detected	20000	Not Detected
Vinyl Chloride	2500	Not Detected	6300	Not Detected
1,3-Butadiene	2500	Not Detected	5500	Not Detected
Bromomethane	2500	Not Detected	9600	Not Detected
Chloroethane	2500	Not Detected	6500	Not Detected
Freon 11	2500	Not Detected	14000	Not Detected
Ethanol	9900	Not Detected	19000	Not Detected
Freon 113	2500	Not Detected	19000	Not Detected
1,1-Dichloroethene	2500	Not Detected	9800	Not Detected
Acetone	9900	Not Detected	23000	Not Detected
2-Propanol	9900	Not Detected	24000	Not Detected
Carbon Disulfide	2500	Not Detected	7700	Not Detected
3-Chloropropene	9900	Not Detected	31000	Not Detected
Methylene Chloride	2500	Not Detected	8600	Not Detected
Methyl tert-butyl ether	2500	870 J	8900	3100 J
trans-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Hexane	2500	2700 "J"	8700	9700 "J"
1,1-Dichloroethane	2500	Not Detected	10000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2500	Not Detected	7300	Not Detected
cis-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Tetrahydrofuran	2500	Not Detected	7300	Not Detected
Chloroform	2500	Not Detected	12000	Not Detected
1,1,1-Trichloroethane	2500	Not Detected	13000	Not Detected
Cyclohexane	2500	41000	8500	140000
Carbon Tetrachloride	2500	Not Detected	16000	Not Detected
2,2,4-Trimethylpentane	2500	1700000	12000	8000000
Benzene	2500	5100	7900	16000
1,2-Dichloroethane	2500	Not Detected	10000	Not Detected
Heptane	2500	3000	10000	12000
Trichloroethene	2500	Not Detected	13000	Not Detected
1,2-Dichloropropane	2500	Not Detected	11000	Not Detected
1,4-Dioxane	9900	Not Detected	36000	Not Detected
Bromodichloromethane	2500	Not Detected	16000	Not Detected
cis-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
4-Methyl-2-pentanone	2500	Not Detected	10000	Not Detected
Toluene	2500	420 J	9300	1600 J
trans-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
1,1,2-Trichloroethane	2500	Not Detected	13000	Not Detected
Tetrachloroethene	2500	Not Detected	17000	Not Detected

Client Sample ID: VMP-16-13.5-090210-DUP

Lab ID#: 1009107A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090815	Date of Collection: 9/2/10 1:34:00 PM		
Dil. Factor:	494	Date of Analysis: 9/9/10 12:45 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	9900	Not Detected	40000	Not Detected
Dibromochloromethane	2500	Not Detected	21000	Not Detected
1,2-Dibromoethane (EDB)	2500	Not Detected	19000	Not Detected
Chlorobenzene	2500	Not Detected	11000	Not Detected
Ethyl Benzene	2500	3500	11000	15000
m,p-Xylene	2500	1400 J	11000	6100 J
o-Xylene	2500	Not Detected	11000	Not Detected
Styrene	2500	Not Detected	10000	Not Detected
Bromoform	2500	Not Detected	26000	Not Detected
Cumene	2500	3300	12000	16000
1,1,2,2-Tetrachloroethane	2500	Not Detected	17000	Not Detected
Propylbenzene	2500	4800	12000	23000
4-Ethyltoluene	2500	600 J	12000	2900 J
1,3,5-Trimethylbenzene	2500	Not Detected	12000	Not Detected
1,2,4-Trimethylbenzene	2500	600 J	12000	3000 J
1,3-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,4-Dichlorobenzene	2500	Not Detected	15000	Not Detected
alpha-Chlorotoluene	2500	Not Detected	13000	Not Detected
1,2-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,2,4-Trichlorobenzene	9900	Not Detected	73000	Not Detected
Hexachlorobutadiene	9900	Not Detected	100000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

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

Client Sample ID: Lab Blank

Lab ID#: 1009107A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090809a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/8/10 09:11 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	13 J	38	24 J
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	1.4 J	19	5.2 J
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009107A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090809a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/8/10 09:11 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	1.8 J	22	7.6 J
o-Xylene	5.0	0.95 J	22	4.1 J
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	0.99 J	24	4.8 J
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	0.99 J	24	4.9 J
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

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

Client Sample ID: CCV

Lab ID#: 1009107A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/10 05:54 PM

Compound	%Recovery
Freon 12	99
Freon 114	100
Chloromethane	97
Vinyl Chloride	102
1,3-Butadiene	99
Bromomethane	97
Chloroethane	101
Freon 11	100
Ethanol	102
Freon 113	101
1,1-Dichloroethene	100
Acetone	103
2-Propanol	102
Carbon Disulfide	104
3-Chloropropene	102
Methylene Chloride	97
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	102
Hexane	103
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	103
Tetrahydrofuran	99
Chloroform	101
1,1,1-Trichloroethane	102
Cyclohexane	103
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	104
Benzene	100
1,2-Dichloroethane	101
Heptane	105
Trichloroethene	94
1,2-Dichloropropane	103
1,4-Dioxane	104
Bromodichloromethane	102
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	107
Toluene	102
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	103
Tetrachloroethene	102

Client Sample ID: CCV

Lab ID#: 1009107A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/10 05:54 PM

Compound	%Recovery
2-Hexanone	106
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	103
Chlorobenzene	101
Ethyl Benzene	102
m,p-Xylene	102
o-Xylene	105
Styrene	106
Bromoform	104
Cumene	108
1,1,2,2-Tetrachloroethane	103
Propylbenzene	102
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	111
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	115
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	111
Hexachlorobutadiene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCS

Lab ID#: 1009107A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/10 06:35 PM

Compound	%Recovery
Freon 12	97
Freon 114	99
Chloromethane	96
Vinyl Chloride	100
1,3-Butadiene	98
Bromomethane	98
Chloroethane	100
Freon 11	98
Ethanol	94
Freon 113	89
1,1-Dichloroethene	88
Acetone	93
2-Propanol	94
Carbon Disulfide	100
3-Chloropropene	99
Methylene Chloride	87
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	101
Hexane	98
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	98
Tetrahydrofuran	97
Chloroform	96
1,1,1-Trichloroethane	98
Cyclohexane	100
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	102
Benzene	96
1,2-Dichloroethane	95
Heptane	101
Trichloroethene	92
1,2-Dichloropropane	100
1,4-Dioxane	100
Bromodichloromethane	97
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	102
Toluene	94
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	98
Tetrachloroethene	95

Client Sample ID: LCS

Lab ID#: 1009107A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/10 06:35 PM

Compound	%Recovery
2-Hexanone	103
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	101
Chlorobenzene	97
Ethyl Benzene	100
m,p-Xylene	100
o-Xylene	100
Styrene	105
Bromoform	99
Cumene	101
1,1,2,2-Tetrachloroethane	97
Propylbenzene	96
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1009107A-08AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090806	Date of Collection: NA
DIL Factor:	1.00	Date of Analysis: 9/8/10 07:02 PM

Compound	%Recovery
Freon 12	100
Freon 114	101
Chloromethane	98
Vinyl Chloride	102
1,3-Butadiene	101
Bromomethane	102
Chloroethane	102
Freon 11	101
Ethanol	93
Freon 113	90
1,1-Dichloroethene	91
Acetone	96
2-Propanol	97
Carbon Disulfide	103
3-Chloropropene	102
Methylene Chloride	89
Methyl tert-butyl ether	108
trans-1,2-Dichloroethene	102
Hexane	102
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	106
cis-1,2-Dichloroethene	100
Tetrahydrofuran	100
Chloroform	99
1,1,1-Trichloroethane	101
Cyclohexane	105
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	106
Benzene	96
1,2-Dichloroethane	97
Heptane	103
Trichloroethene	92
1,2-Dichloropropane	100
1,4-Dioxane	100
Bromodichloromethane	99
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	102
Toluene	95
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	102
Tetrachloroethene	100

Client Sample ID: LCSD

Lab ID#: 1009107A-08AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w090806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/8/10 07:02 PM

Compound	%Recovery
2-Hexanone	104
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	105
Chlorobenzene	100
Ethyl Benzene	102
m,p-Xylene	103
o-Xylene	105
Styrene	112
Bromoform	103
Cumene	104
1,1,2,2-Tetrachloroethane	100
Propylbenzene	99
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	112
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



Sample Transportation Notice

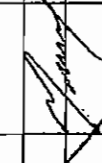
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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020**

CHAIN-OF-CUSTODY RECORD

Project Manager Thomas (Scott) Adams
 Collected by: (Print and Sign) Mike Miller
 Company URS Corporation Email thomas.adams@urscorp.com
 Address 1001 Highway 1, Suite 200 City St. Louis State MO Zip 63110
 Phone 314 424-0100 Fax 314 424-0462

Project Manager <u>J. Williams (Self) Adams</u>		Project Info:	
Collected by: (Print and Sign) <u>H. K. Miller</u>		Turn Around Time: ☐ Normal ☐ Rush	
Company <u>UPS Corporation</u> Email <u>h.k.miller@ups.com</u>		Project # <u>Bestman Disposal Phase</u>	
Address <u>1001 Highway 100, Suite 300</u> City <u>St. Louis</u> State <u>MO</u> Zip <u>63110</u>		Project Name _____	
Phone <u>314 424-0100</u> Fax <u>314 424-0462</u>		Specify _____	
Lab Use Only		Pressurized by _____	
N ₂ _____		He _____	

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial	Final
01A	VMP-14-5-090110 ✓	3509	09/01/10	1342/1417	MOBIL 70-15 / 100m D-Rockets	30	7
02A	VMP-17-5-090110 ✓	3997	09/01/10	1575/1508	"	30	8
03A	VMP-16-5-090210 ✓	3022	09/02/10	1148/1212	"	30	5
04A	VMP-16-13.5-090210 ✓	3268	09/02/10	1302/1330	"	30	5
05A	VMP-16-13.5-090210 -Dup ✓	2140	09/02/10	1302/1334	"	29	6
							
Relinquished by: (signature) _____ Date/Time _____							
Relinquished by: (signature) _____ Date/Time _____							
Relinquished by: (signature) _____ Date/Time _____							

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>9/2/10 1700</u>	Notes: - 14 Dgs had P/ve - Last 12 Ecvp Report results below 14DL and P/ve
Relinquished by: (signature) <u>Monica L. Gorden</u> Date/Time <u>9/3/10 915</u>	
Relinquished by: (signature) _____ Date/Time _____	

Shipper Name: <u>FedEx</u>	Air Bill #: _____	Temp (°C): _____	Condition: <u>Good</u>	Custody Seals Intact? <u>Yes</u>	Work Order #: <u>1009107</u>
Lab Use Only					

9/17/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009107B

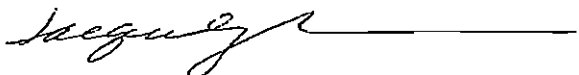
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/3/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/21/2010

WORK ORDER #: 1009107B

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/03/2010

DATE COMPLETED: 09/17/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-19-5-090110 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
02A	VMP-17-5-090110 ✓	Modified ASTM D-1946	7.5 "Hg	15 psi
03A	VMP-16-5-090210 ✓	Modified ASTM D-1946	4.5 "Hg	15 psi
04A	VMP-16-13.5-090210 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
05A	VMP-16-13.5-090210-DUP ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
06A	Lab Blank	Modified ASTM D-1946	NA	NA
06B	Lab Blank	Modified ASTM D-1946	NA	NA
06C	Lab Blank	Modified ASTM D-1946	NA	NA
06D	Lab Blank	Modified ASTM D-1946	NA	NA
07A	LCS	Modified ASTM D-1946	NA	NA
07AA	LCSD	Modified ASTM D-1946	NA	NA
07B	LCS	Modified ASTM D-1946	NA	NA
07BB	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sandra D. Freeman

Laboratory Director

DATE: 09/17/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009107B

Five 1 Liter Summa Canister samples were received on September 03, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-19-5-090110

Lab ID#: 1009107B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.53	9.1
Nitrogen	0.53	81
Methane	0.00053	0.00099
Carbon Dioxide	0.053	10
Helium	0.26	0.049 J

Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.54	12
Nitrogen	0.54	80
Methane	0.00054	0.00048 J
Carbon Dioxide	0.054	7.8
Helium	0.27	0.089 J

Client Sample ID: VMP-16-5-090210

Lab ID#: 1009107B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.0
Nitrogen	0.24	38
Methane	0.00048	43
Carbon Dioxide	0.024	18
Ethane	0.0024	0.0014 J
Helium	0.12	0.032 J

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107B-04A

Compound	Rpt. Limit (%)	Amount (%)

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	0.78 "J"
Nitrogen	0.25	34
Methane	0.00049	46
Carbon Dioxide	0.025	19
Ethane	0.0025	0.0014 J
Helium	0.12	0.0 ND ~~0.017 J~~

Client Sample ID: VMP-16-13.5-090210-DUP

Lab ID#: 1009107B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.0 "J"
Nitrogen	0.25	35
Methane	0.00049	45
Carbon Dioxide	0.025	18
Ethane	0.0025	0.0014 J
Helium	0.12	0.0 ND ~~0.020 J~~

Client Sample ID: VMP-19-5-090110

Lab ID#: 1009107B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091530	Date of Collection:	9/1/10 2:17:00 PM
Dil. Factor:	5.29	Date of Analysis:	9/15/10 09:23 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.53	9.1	
Nitrogen	0.53	81	
Carbon Monoxide	0.053	Not Detected	
Methane	0.00053	0.00099	
Carbon Dioxide	0.053	10	
Ethane	0.0053	Not Detected	
Ethene	0.0053	Not Detected	
Helium	0.26	0.049 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091606	Date of Collection:	9/1/10 3:48:00 PM
Dil. Factor:	5.43	Date of Analysis:	9/15/10 11:54 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.54	12	
Nitrogen	0.54	80	
Carbon Monoxide	0.054	Not Detected	
Methane	0.00054	0.00048 J	0.0 ND
Carbon Dioxide	0.054	7.8	
Ethane	0.0054	Not Detected	
Ethene	0.0054	Not Detected	
Helium	0.27	0.089 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-16-5-090210

Lab ID#: 1009107B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091526	Date of Collection:	9/2/10 12:12:00 PM
Dil. Factor:	2.38	Date of Analysis:	9/15/10 07:56 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	1.0	
Nitrogen	0.24	38	
Carbon Monoxide	0.024	Not Detected	
Methane	0.00048	43	
Carbon Dioxide	0.024	18	
Ethane	0.0024	0.0014 J	
Ethene	0.0024	Not Detected	
Helium	0.12	0.032 J	

J = Estimated value.

Methane was reported from file # 9091527 analyzed on 9/15/10 at a dilution factor of 4.76.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-16-13.5-090210

Lab ID#: 1009107B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091528	Date of Collection:	9/2/10 1:30:00 PM
Dil. Factor:	2.47	Date of Analysis:	9/15/10 08:40 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	0.78	"J"
Nitrogen	0.25	34	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00049	46	
Carbon Dioxide	0.025	19	
Ethane	0.0025	0.0014 J	
Ethene	0.0025	Not Detected	
Helium	0.12	0.0 ND	"U"

J = Estimated value.

Methane was reported from file # 9091529 analyzed on 9/15/10 at a dilution factor of 4.94.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-16-13.5-090210-DUP

Lab ID#: 1009107B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091608	Date of Collection:	9/2/10 1:34:00 PM
Dil. Factor:	2.47	Date of Analysis:	9/16/10 05:49 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	2.0	J
Nitrogen	0.25	35	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00049	45	
Carbon Dioxide	0.025	18	
Ethane	0.0025	0.0014 J	
Ethene	0.0025	Not Detected	
Helium	0.12	0.0ND 0.020 J	

J = Estimated value.

Methane was reported from file # 9091609 analyzed on 9/15/10 at a dilution factor of 4.94.

Container Type: 1 Liter Summa Canister

Client Sample ID: Lab Blank

Lab ID#: 1009107B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091505a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 10:18 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.022 J
Nitrogen	0.10	0.088 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1009107B-06B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091503ba	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/15/10 09:33 AM
Compound	Rpt. Limit (%)	Amount (%)	
Helium	0.050	0.0045 J	

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1009107B-06C

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091605a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/15/10 11:34 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.10	0.013 J	
Nitrogen	0.10	0.074 J	
Carbon Monoxide	0.010	Not Detected	
Methane	0.00010	0.000029 J	
Carbon Dioxide	0.010	Not Detected	
Ethane	0.0010	Not Detected	
Ethene	0.0010	Not Detected	

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009107B-06D

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091604ba	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/15/10 11:15 PM
Compound	Rpt. Limit (%)	Amount (%)	
Helium	0.050	0.0045 J	

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1009107B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091513	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 01:26 PM

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	99
Methane	97
Carbon Dioxide	99
Ethane	99
Ethene	98
Helium	95

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 1009107B-07AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091531	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:44 PM

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	101
Methane	95
Carbon Dioxide	99
Ethane	97
Ethene	97
Helium	93

Container Type: NA - Not Applicable



Client Sample ID: LCS

Lab ID#: 1009107B-07B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091627	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 01:51 PM

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	101
Methane	98
Carbon Dioxide	101
Ethane	100
Ethene	100
Helium	96

Container Type: NA - Not Applicable



Client Sample ID: LCSD

Lab ID#: 1009107B-07BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9091628	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 02:13 PM

Compound	%Recovery
Oxygen	98
Nitrogen	100
Carbon Monoxide	101
Methane	101
Carbon Dioxide	101
Ethane	103
Ethene	102
Helium	96

Container Type: NA - Not Applicable



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Project Manager Thomas (Scott) Adams
Collected by: (Print and Sign) Mike Miller
Company UPS Corporation Email thomas.adams@usps.com
Address 1001 Highway 101, Suite 300 City San Luis Obispo State CA Zip 93110
Phone 314 424-0100 Fax 314 424-0162

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Info:				Turn Around Time:		Pressurized by:				
P.O. #				☐ Normal		Date				
Project # <u>Between Disposal Phase</u>				☐ Rush		Pressurization Gas				
Project Name				Specify		N ₂ He				
Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	Initial	Final	Receipt	Final
01A	VMP-19-5-090110	3509	09/01/10	1342/1417	Alc Diels Alder	30	30	7		
02A	VMP-17-5-090110	3997	09/01/10	1515/1548	"	30	30	8		
03A	VMP-16-5-090210	3022	09/02/10	1448/1412	"	30	30	5		
04A	VMP-16-13.5-090210	3268	09/02/10	1302/1330	"	30	30	5		
05A	VMP-16-13.5-090210-DUP	2140	09/02/10	1302/1334	"	29	29	6		
Notes: - 14 Day hold time - Lead IX ECV - Report results between 14DL and 14L										
Relinquished by: (signature) <u>Thomas Adams</u>		Date/Time <u>9/2/10 1700</u>		Received by: (signature) <u>Monica</u>		Date/Time <u>9/3/10 915</u>		Notes: - 14 Day hold time - Lead IX ECV - Report results between 14DL and 14L		
Relinquished by: (signature) <u>Thomas Adams</u>		Date/Time <u>9/2/10 1700</u>		Received by: (signature) <u>Monica</u>		Date/Time <u>9/3/10 915</u>		Notes: - 14 Day hold time - Lead IX ECV - Report results between 14DL and 14L		
Relinquished by: (signature) <u>Thomas Adams</u>		Date/Time <u>9/2/10 1700</u>		Received by: (signature) <u>Monica</u>		Date/Time <u>9/3/10 915</u>		Notes: - 14 Day hold time - Lead IX ECV - Report results between 14DL and 14L		
Shipper Name <u>FedEx</u>		Air Bill # <u>NA</u>		Temp (°C) <u>Good</u>		Condition <u>Good</u>		Custody Seals Intact? <u>Yes</u>		
Lab Use Only		Air Bill # <u>NA</u>		Temp (°C) <u>Good</u>		Condition <u>Good</u>		Custody Seals Intact? <u>Yes</u>		

9/15/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009107C

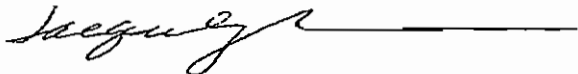
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/3/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/21/2010

WORK ORDER #: 1009107C

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/03/2010

DATE COMPLETED: 09/15/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-19-5-090110 /	Modified TO-15	6.5 "Hg	15 psi
02A	VMP-17-5-090110 /	Modified TO-15	7.5 "Hg	15 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:

Sandra J. Freeman

Laboratory Director

DATE: 09/15/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009107C**

Two 1 Liter Summa Canister samples were received on September 03, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Various compounds were detected in the laboratory blank analyzed on September 14, 2010 at less than the respective reporting limits.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-19-5-090110

Lab ID#: 1009107C-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.57 J	6.4	2.8 J
Freon 11	1.3	0.0 ND 0.25 J "	7.2	0.0 ND 1.3 J "
Ethanol	5.2	5.5	9.7	10
Acetone	5.2	19	12	44
2-Propanol	5.2	240	13	580
Carbon Disulfide	1.3	0.0 ND 0.58 J "	4.0	0.0 ND 1.8 J "
Methylene Chloride	1.3	0.0 ND 0.34 J "	4.5	0.0 ND 1.2 J "
Hexane	1.3	96	4.5	340
2-Butanone (Methyl Ethyl Ketone)	1.3	4.4	3.8	13
Chloroform	1.3	0.19 J	6.3	0.94 J
Cyclohexane	1.3	14	4.4	49
2,2,4-Trimethylpentane	1.3	48 J "	6.0	220 J "
Benzene	1.3	5.9	4.1	19
Heptane	1.3	21	5.3	88
Tetrachloroethene	1.3	0.0 ND 0.29 J "	8.8	0.0 ND 2.0 J "
2-Hexanone	5.2	0.92 J "	21	3.8 J "
Chlorobenzene	1.3	0.0 ND 0.33 J "	5.9	0.0 ND 1.5 J "
Ethyl Benzene	1.3	2.0 J "	5.6	8.6 J "
m,p-Xylene	1.3	3.2 J "	5.6	14 J "
o-Xylene	1.3	1.1 J "	5.6	4.7 J "
Propylbenzene	1.3	0.0 ND 0.25 J "	6.3	0.0 ND 1.2 J "
1,2,4-Trimethylbenzene	1.3	0.0 ND 0.42 J "	6.3	0.0 ND 2.1 J "
1,3-Dichlorobenzene	1.3	0.0 ND 0.32 J "	7.8	0.0 ND 1.9 J "
1,4-Dichlorobenzene	1.3	0.0 ND 0.34 J "	7.8	0.0 ND 2.1 J "
1,2-Dichlorobenzene	1.3	0.32 J	7.8	1.9 J
1,2,4-Trichlorobenzene	5.2	0.0 ND 0.95 J "	38	0.0 ND 2.0 J "

Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107C-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107C-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.53 J	6.6	2.6 J
Chloromethane	5.4	2.2 J	11	4.5 J
Freon 11	1.3	0.0 ND 0.26 J "	7.6	0.0 ND 1.5 J "
Ethanol	5.4	12	10	22
Acetone	5.4	100	13	250
2-Propanol	5.4	11	13	27
Carbon Disulfide	1.3	0.0 ND 0.52 J "	4.2	0.0 ND 1.6 J "
Hexane	1.3	25	4.7	88
2-Butanone (Methyl Ethyl Ketone)	1.3	32	4.0	96
Tetrahydrofuran	1.3	1.2 J	4.0	3.4 J
Cyclohexane	1.3	5.8	4.6	20
2,2,4-Trimethylpentane	1.3	26 J "	6.3	120 J "
Benzene	1.3	2.7	4.3	8.6
Heptane	1.3	10	5.5	43
1,4-Dioxane	5.4	0.92 J	19	3.3 J
Toluene	1.3	2.1	5.1	7.8
Tetrachloroethene	1.3	0.0 ND 0.44 J "	9.1	0.0 ND 3.8 J "
Chlorobenzene	1.3	0.0 ND 0.26 J "	6.2	0.0 ND 1.2 J "
Ethyl Benzene	1.3	0.91 J "	5.8	3.9 J "
m,p-Xylene	1.3	1.2 J "	5.8	5.3 J "
o-Xylene	1.3	0.37 J "	5.8	1.6 J "
1,2-Dichlorobenzene	1.3	0.33 J	8.1	2.0 J
1,2,4-Trichlorobenzene	5.4	0.0 ND 0.78 J "	40	0.0 ND 5.8 J "

Client Sample ID: VMP-19-S-090110

Lab ID#: 1009107C-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091409	Date of Collection:	9/1/10 2:17:00 PM	
Dil. Factor:	2.58	Date of Analysis:	9/14/10 04:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.57 J	6.4	2.8 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	Not Detected	5.0	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	0.0 ND 0.25 U"	7.2	0.0 ND 1.5 U"
Ethanol	5.2	5.5	9.7	10
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	19	12	44
2-Propanol	5.2	240	13	580
Carbon Disulfide	1.3	0.0 ND 0.58 U"	4.0	0.0 ND 1.8 U"
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	1.3	0.0 ND 0.34 U"	4.5	0.0 ND 1.2 U"
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	96	4.5	340
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	4.4	3.8	13
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	0.19 J	6.3	0.94 J
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	14	4.4	49
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	48 J	6.0	220 J
Benzene	1.3	5.9	4.1	19
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	21	5.3	88
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	Not Detected	4.9	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	0.0 ND 0.29 U"	8.8	0.0 ND 2.0 U"

Client Sample ID: VMP-19-5-090110

Lab ID#: 1009107C-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091409	Date of Collection:	9/1/10 2:17:00 PM	
Dil. Factor:	2.58	Date of Analysis:	9/14/10 04:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.2	0.92 "J"	21	3.8 "J"
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	0.0 ND 0.33 "U"	5.9	0.0 ND 1.6 "U"
Ethyl Benzene	1.3	2.0 "J"	5.6	8.6 "J"
m,p-Xylene	1.3	3.2 "J"	5.6	14 "J"
o-Xylene	1.3	1.1 "J"	5.6	4.7 "J"
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	0.0 ND 0.25 "U"	6.3	0.0 ND 1.2 "U"
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	0.0 ND 0.42 "U"	6.3	0.0 ND 2.1 "U"
1,3-Dichlorobenzene	1.3	0.0 ND 0.32 "U"	7.8	0.0 ND 1.8 "U"
1,4-Dichlorobenzene	1.3	0.0 ND 0.34 "U"	7.8	0.0 ND 2.1 "U"
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	0.32 J	7.8	1.9 J
1,2,4-Trichlorobenzene	5.2	0.0 ND 0.95 "U"	38	0.0 ND 2.8 "U"
Hexachlorobutadiene	5.2	Not Detected "UJ"	55	Not Detected "UJ"

J = Estimated value.

J = Estimated value due to bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	86	70-130

Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107C-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091410	Date of Collection:	9/1/10 3:48:00 PM	
Dil. Factor:	2.69	Date of Analysis:	9/14/10 05:26 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.53 J	6.6	2.6 J
Freon 114	1.3	Not Detected	9.4	Not Detected
Chloromethane	5.4	2.2 J	11	4.5 J
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	3.0	Not Detected
Bromomethane	1.3	Not Detected	5.2	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.0 ND 0.26 u"	7.6	0.0 ND 1.5 u"
Ethanol	5.4	12	10	22
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Acetone	5.4	100	13	250
2-Propanol	5.4	11	13	27
Carbon Disulfide	1.3	0.0 ND 0.52 u"	4.2	0.0 ND 1.6 u"
3-Chloropropene	5.4	Not Detected	17	Not Detected
Methylene Chloride	1.3	Not Detected	4.7	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Hexane	1.3	25	4.7	88
1,1-Dichloroethane	1.3	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	32	4.0	96
cis-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Tetrahydrofuran	1.3	1.2 J	4.0	3.4 J
Chloroform	1.3	Not Detected	6.6	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Cyclohexane	1.3	5.8	4.6	20
Carbon Tetrachloride	1.3	Not Detected	8.5	Not Detected
2,2,4-Trimethylpentane	1.3	26 J	6.3	120 J
Benzene	1.3	2.7	4.3	8.6
1,2-Dichloroethane	1.3	Not Detected	5.4	Not Detected
Heptane	1.3	10	5.5	43
Trichloroethene	1.3	Not Detected	7.2	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
1,4-Dioxane	5.4	0.92 J	19	3.3 J
Bromodichloromethane	1.3	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	2.1	5.1	7.8
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Tetrachloroethene	1.3	0.0 ND 0.44 u"	9.1	0.0 ND 3.0 u"



Client Sample ID: VMP-17-5-090110

Lab ID#: 1009107C-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091410	Date of Collection:	9/1/10 3:48:00 PM
Dil. Factor:	2.69	Date of Analysis:	9/14/10 05:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	0.0 ND 0.26 J	6.2	0.0 ND 1.2 J
Ethyl Benzene	1.3	0.91 J	5.8	3.9 J
m,p-Xylene	1.3	1.2 J	5.8	5.3 J
o-Xylene	1.3	0.37 J	5.8	1.6 J
Styrene	1.3	Not Detected	5.7	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected
Propylbenzene	1.3	Not Detected	6.6	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.6	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	7.0	Not Detected
1,2-Dichlorobenzene	1.3	0.33 J	8.1	2.0 J
1,2,4-Trichlorobenzene	5.4	0.0 ND 0.78 J	40	0.0 ND 5.8 J
Hexachlorobutadiene	5.4	Not Detected	57	Not Detected

J = Estimated value.

J = Estimated value due to bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	84	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009107C-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091407a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/14/10 02:30 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	0.080 J	2.8	0.45 J
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	0.16 J	1.6	0.52 J
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	0.18 J	1.7	0.63 J
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	0.077 J	2.0	0.31 J
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
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	0.098 J	2.4	0.48 J
1,1,1-Trichloroethane	0.50	0.065 J	2.7	0.36 J
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	0.11 J	2.3	0.50 J
Benzene	0.50	0.10 J	1.6	0.33 J
1,2-Dichloroethane	0.50	0.12 J	2.0	0.47 J
Heptane	0.50	0.12 J	2.0	0.48 J
Trichloroethene	0.50	0.14 J	2.7	0.73 J
1,2-Dichloropropane	0.50	0.099 J	2.3	0.46 J
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	0.11 J	3.4	0.72 J
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	0.11 J	1.9	0.42 J
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	0.13 J	3.4	0.87 J

Client Sample ID: Lab Blank

Lab ID#: 1009107C-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091407a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 02:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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	0.13 J	3.8	0.99 J
Chlorobenzene	0.50	0.17 J	2.3	0.78 J
Ethyl Benzene	0.50	0.088 J	2.2	0.38 J
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
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	0.15 J	2.4	0.75 J
1,1,2,2-Tetrachloroethane	0.50	0.19 J	3.4	1.3 J
Propylbenzene	0.50	0.12 J	2.4	0.59 J
4-Ethyltoluene	0.50	0.12 J	2.4	0.57 J
1,3,5-Trimethylbenzene	0.50	0.12 J	2.4	0.61 J
1,2,4-Trimethylbenzene	0.50	0.13 J	2.4	0.64 J
1,3-Dichlorobenzene	0.50	0.29 J	3.0	1.7 J
1,4-Dichlorobenzene	0.50	0.28 J	3.0	1.7 J
alpha-Chlorotoluene	0.50	0.17 J	2.6	0.88 J
1,2-Dichlorobenzene	0.50	0.30 J	3.0	1.8 J
1,2,4-Trichlorobenzene	2.0	0.72 J	15	5.3 J
Hexachlorobutadiene	2.0	0.56 J	21	6.0 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	88	70-130

Client Sample ID: CCV

Lab ID#: 1009107C-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 11:29 AM

Compound	%Recovery
Freon 12	105
Freon 114	104
Chloromethane	119
Vinyl Chloride	113
1,3-Butadiene	110
Bromomethane	103
Chloroethane	106
Freon 11	97
Ethanol	107
Freon 113	98
1,1-Dichloroethene	107
Acetone	102
2-Propanol	99
Carbon Disulfide	107
3-Chloropropene	104
Methylene Chloride	106
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	102
Hexane	123
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	106
Tetrahydrofuran	116
Chloroform	102
1,1,1-Trichloroethane	95
Cyclohexane	122
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	139 Q
Benzene	101
1,2-Dichloroethane	89
Heptane	118
Trichloroethene	98
1,2-Dichloropropane	98
1,4-Dioxane	103
Bromodichloromethane	91
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	108
Toluene	100
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	107
Tetrachloroethene	98

Client Sample ID: CCV

Lab ID#: 1009107C-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 11:29 AM

Compound	%Recovery
2-Hexanone	121
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	104
Chlorobenzene	101
Ethyl Benzene	119
m,p-Xylene	121
o-Xylene	121
Styrene	115
Bromoform	97
Cumene	102
1,1,2,2-Tetrachloroethane	107
Propylbenzene	111
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	90
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	78

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: LCS

Lab ID#: 1009107C-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 12:10 PM

Compound	%Recovery
Freon 12	104
Freon 114	101
Chloromethane	98
Vinyl Chloride	120
1,3-Butadiene	117
Bromomethane	111
Chloroethane	112
Freon 11	101
Ethanol	108
Freon 113	91
1,1-Dichloroethene	98
Acetone	105
2-Propanol	101
Carbon Disulfide	112
3-Chloropropene	107
Methylene Chloride	100
Methyl tert-butyl ether	113
trans-1,2-Dichloroethene	106
Hexane	123
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	113
Tetrahydrofuran	123
Chloroform	104
1,1,1-Trichloroethane	99
Cyclohexane	129
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	132
Benzene	113
1,2-Dichloroethane	96
Heptane	126
Trichloroethene	106
1,2-Dichloropropane	110
1,4-Dioxane	117
Bromodichloromethane	101
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	117
Toluene	104
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	116
Tetrachloroethene	107

Client Sample ID: LCS

Lab ID#: 1009107C-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 12:10 PM

Compound	%Recovery
2-Hexanone	133
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	118
Chlorobenzene	111
Ethyl Benzene	132 Q
m,p-Xylene	133 Q
o-Xylene	94
Styrene	128
Bromoform	105
Cumene	102
1,1,2,2-Tetrachloroethane	93
Propylbenzene	114
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	91
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	69 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: LCSD

Lab ID#: 1009107C-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091405	Date of Collection: NA
DIL. Factor:	1.00	Date of Analysis: 9/14/10 12:49 PM

Compound	%Recovery
Freon 12	111
Freon 114	113
Chloromethane	130
Vinyl Chloride	123
1,3-Butadiene	122
Bromomethane	110
Chloroethane	117
Freon 11	106
Ethanol	108
Freon 113	93
1,1-Dichloroethene	105
Acetone	110
2-Propanol	107
Carbon Disulfide	118
3-Chloropropene	114
Methylene Chloride	105
Methyl tert-butyl ether	115
trans-1,2-Dichloroethene	110
Hexane	130
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	121
cis-1,2-Dichloroethene	115
Tetrahydrofuran	128
Chloroform	108
1,1,1-Trichloroethane	102
Cyclohexane	130
Carbon Tetrachloride	103
2,2,4-Trimethylpentane	141 Q
Benzene	113
1,2-Dichloroethane	100
Heptane	131
Trichloroethene	108
1,2-Dichloropropane	112
1,4-Dioxane	120
Bromodichloromethane	103
cis-1,3-Dichloropropene	114
4-Methyl-2-pentanone	122
Toluene	106
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	122
Tetrachloroethene	112

Client Sample ID: LCSD

Lab ID#: 1009107C-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2091405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/14/10 12:49 PM

Compound	%Recovery
2-Hexanone	143 Q
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	125
Chlorobenzene	115
Ethyl Benzene	137 Q
m,p-Xylene	139 Q
o-Xylene	133 Q
Styrene	130
Bromoform	108
Cumene	111
1,1,2,2-Tetrachloroethane	120
Propylbenzene	123
4-Ethyltoluene	125
1,3,5-Trimethylbenzene	119
1,2,4-Trimethylbenzene	122
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	107
alpha-Chlorotoluene	103
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	81

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	92	70-130



CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Project Manager Thomas (Self) Adams
 Collected by: (Print and sign) Mike Miller
 Company UPS Corporation Email thomasadams@ups.com
 Address 1001 W. 14th St., Suite 200 State MO Zip 63110
 Phone 314 429-0100 Fax 314 429-0462

Project Name

[illegible]

Relinquished by: (signature) **Date/Time**

- Report results between 1DL and 2Lh

2000

22/11/2019

NOTES

Roxana Vapor Data Review

Laboratory SDG: 1009223

Reviewer: Elizabeth Kunkel

Date Reviewed: 9/27/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-5-5-090910	VMP-3-31.5-090910
VMP-11-8-090810	VMP-18-8.5-090710
VMP-5-12.5-090910	VMP-3-5-090910
VMP-5-31-090910	VMP-10-10-090710
VMP-6-31.5-090810	VMP-10-5-090710
VMP-10-20-090710-Dup	VMP-11-29-090810
VMP-11-5-090710	VMP-6-5-090810
VMP-10-20-090710	VMP-12-11.5-090310
VMP-12-5-090310	VMP-16-19-090210
VMP-12-25-090310	VMP-6-10-090810
VMP-16-31-090310	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that one TO-15 surrogate recovery was outside evaluation criteria in sample VMP-6-10-090810. Samples VMP-5-5-090910, VMP-3-5-090910, VMP-5-31-090910, VMP-6-31.5-090810, VMP-6-5-090810, and VMP-12-5-090310 were diluted due to the presence of non-target analytes. Sample VMP-16-31-090310 was analyzed at two different dilutions due to high levels of 2,2,4-trimethylpentane. Sample results with the lowest reporting limits will be reported. Additionally, TO-15 analytes and natural gases were detected in the method blank. One TO-15 LCS recovery was outside evaluation criteria. TO-15 analytes were qualified in field duplicate pair, VMP-10-20-090710/VMP-10-20-090710-Dup due to a greater than two times (>2X) the reporting level (RL) difference between duplicate results and field duplicate RPD outside evaluation criteria. Several samples were diluted due to high levels of target analytes. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form; however, COC designated sample ID, VMP-11-8-090810 was incorrectly transcribed by the laboratory as VMP-11-

8-080910 for the natural gases analyses. Results were reported using the correct COC designated sample ID. Sample VMP-5-12.5-090910 was incorrectly recorded in the field as VMP-8-12.5-090910. Results were reported using the correct (VMP-5-12.5-090910) sample ID.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1009223E-05A	TO-15	Bromomethane	0.37 ppbv/1.4 µg/m ³
1009223E-05A	TO-15	Acetone	0.28 ppbv/0.68 µg/m ³
1009223E-05A	TO-15	Carbon disulfide	0.13 ppbv/0.42 µg/m ³
1009223E-05A	TO-15	Trichloroethene	0.089 ppbv/0.48 µg/m ³
1009223E-05A	TO-15	Toluene	0.17 ppbv/0.66 µg/m ³
1009223E-05A	TO-15	Tetrachloroethene	0.10 ppbv/0.69 µg/m ³
1009223E-05A	TO-15	1,2-Dibromomethane	0.073 ppbv/0.56 µg/m ³
1009223E-05A	TO-15	Chlorobenzene	0.10 ppbv/0.48 µg/m ³
1009223E-05A	TO-15	<i>m,p</i> -Xylenes	0.069 ppbv/0.30 µg/m ³
1009223E-05A	TO-15	Styrene	0.12 ppbv/0.50 µg/m ³
1009223E-05A	TO-15	Cumene	0.066 ppbv/0.32 µg/m ³
1009223E-05A	TO-15	1,1,2,2-Tetrachloroethane	0.11 ppbv/0.78 µg/m ³
1009223E-05A	TO-15	Propylbenzene	0.12 ppbv/0.58 µg/m ³
1009223E-05A	TO-15	4-Ethyltoluene	0.18 ppbv/0.90 µg/m ³
1009223E-05A	TO-15	1,3,5-Trimethylbenzene	0.13 ppbv/0.64 µg/m ³
1009223E-05A	TO-15	1,2,4-Trimethylbenzene	0.20 ppbv/0.96 µg/m ³
1009223E-05A	TO-15	1,3-Dichlorobenzene	0.33 ppbv/2.0 µg/m ³
1009223E-05A	TO-15	1,4-Dichlorobenzene	0.40 ppbv/2.4 µg/m ³
1009223E-05A	TO-15	alpha-Chlorotoluene	0.19 ppbv/0.97 µg/m ³
1009223E-05A	TO-15	1,2-Dichlorobenzene	0.38 ppbv/2.3 µg/m ³
1009223E-05A	TO-15	1,2,4-Trichlorobenzene	1.4 ppbv/11 µg/m ³
1009223E-05A	TO-15	Hexachlorobutadiene	0.94 ppbv/10 µg/m ³
1009223A-21A	TO-15	1,2,4-Trichlorobenzene	3.8 ppbv/28 µg/m ³
1009223A-21A	TO-15	Hexachlorobutadiene	4.4 ppbv/47 µg/m ³
1009223A-21B	TO-15	Bromomethane	0.35 ppbv/1.4 µg/m ³
1009223A-21B	TO-15	Carbon Disulfide	0.33 ppbv/1.0 µg/m ³
1009223A-21B	TO-15	Chloroform	0.060 ppbv/0.30 µg/m ³
1009223A-21B	TO-15	1,1,1-Trichloroethane	0.054 ppbv/0.29 µg/m ³
1009223A-21B	TO-15	2,2,4-Trimethylpentane	0.078 ppbv/0.36 µg/m ³
1009223A-21B	TO-15	Benzene	0.075 ppbv/0.24 µg/m ³
1009223A-21B	TO-15	Heptane	0.071 ppbv/0.29 µg/m ³
1009223A-21B	TO-15	Trichloroethene	0.094 ppbv/0.50 µg/m ³
1009223A-21B	TO-15	Bromodichloromethane	0.056 ppbv/0.38 µg/m ³
1009223A-21B	TO-15	cis-1,3-Dichloropropene	0.076 ppbv/0.35 µg/m ³
1009223A-21B	TO-15	4-Methyl-2-pentanone	0.12 ppbv/0.48 µg/m ³
1009223A-21B	TO-15	Toluene	0.10 ppbv/0.40 µg/m ³

Blank ID	Parameter	Analyte	Concentration/Amount
1009223A-21B	TO-15	trans-1,3-Dichloropropene	0.092 ppbv/0.42 µg/m ³
1009223A-21B	TO-15	1,1,2-Trichloroethane	0.069 ppbv/0.38 µg/m ³
1009223A-21B	TO-15	Tetrachloroethene	0.10 ppbv/0.71 µg/m ³
1009223A-21B	TO-15	1,2-Dibromoethane	0.094 ppbv/0.72 µg/m ³
1009223A-21B	TO-15	Chlorobenzene	0.12 ppbv/0.54 µg/m ³
1009223A-21B	TO-15	<i>m,p</i> -Xylenes	0.11 ppbv/0.48 µg/m ³
1009223A-21B	TO-15	<i>o</i> -Xylenes	0.14 ppbv/0.60 µg/m ³
1009223A-21B	TO-15	Styrene	0.10 ppbv/0.43 µg/m ³
1009223A-21B	TO-15	Cumene	0.17 ppbv/0.85 µg/m ³
1009223A-21B	TO-15	1,1,2,2-Tetrachloroethane	0.14 ppbv/0.93 µg/m ³
1009223A-21B	TO-15	Propylbenzene	0.16 ppbv/0.79 µg/m ³
1009223A-21B	TO-15	4-Ethyltoluene	0.15 ppbv/0.73 µg/m ³
1009223A-21B	TO-15	1,3,5-Trimethylbenzene	0.25 ppbv/1.2 µg/m ³
1009223A-21B	TO-15	1,2,4-Trimethylbenzene	0.18 ppbv/0.91 µg/m ³
1009223A-21B	TO-15	1,3-Dichlorobenzene	0.22 ppbv/1.4 µg/m ³
1009223A-21B	TO-15	1,4-Dichlorobenzene	0.24 ppbv/1.4 µg/m ³
1009223A-21B	TO-15	1,2-Dichlorobenzene	0.24 ppbv/1.4 µg/m ³
1009223A-21B	TO-15	1,2,4-Trichlorobenzene	0.71 ppbv/5.3 µg/m ³
1009223A-21B	TO-15	Hexachlorobutadiene	0.54 ppbv/5.8 µg/m ³
1009223A-21C	TO-15	2-Propanol	1.2 ppbv/3.0 µg/m ³
1009223A-21C	TO-15	Methylene chloride	1.9 ppbv/6.6 µg/m ³
1009223A-21D	TO-15	alpha-Chlorotoluene	1.1 ppbv/5.6 µg/m ³
1009223A-21D	TO-15	1,2,4-Trichlorobenzene	1.6 ppbv/12 µg/m ³
1009223B-22A	TO-15	Bromomethane	0.24 ppbv/0.92 µg/m ³
1009223B-22A	TO-15	Carbon disulfide	0.30 ppbv/0.92 µg/m ³
1009223B-22A	TO-15	1,3-Dichlorobenzene	0.11 ppbv/0.66 µg/m ³
1009223B-22A	TO-15	1,4-Dichlorobenzene	0.12 ppbv/0.74 µg/m ³
1009223C-21A	Natural gases	Oxygen	0.0079%
1009223C-21A	Natural gases	Nitrogen	0.047%
1009223C-21B	Natural gases	Nitrogen	0.049%
1009223C-21B	Natural gases	Carbon dioxide	0.0072%
1009223D-22A	Natural gases	Oxygen	0.0074%
1009223D-22A	Natural gases	Nitrogen	0.051%
1009223D-22A	Natural gases	Helium	0.0042%
1009223CR1-21C	Natural gases	Helium	0.0044%
1009223CR1-21D	Natural gases	Helium	0.0044%

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-18-8.5-090710	TO-15	Bromomethane	-	U
VMP-18-8.5-090710	TO-15	Trichloroethene	-	U
VMP-18-8.5-090710	TO-15	Tetrachloroethene	-	U
VMP-18-8.5-090710	TO-15	Ethylbenzene	-	U
VMP-18-8.5-090710	TO-15	Cumene	-	U
VMP-18-8.5-090710	TO-15	1,1,2,2-Tetrachloroethane	-	U

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-18-8.5-090710	TO-15	Propylbenzene	-	U
VMP-18-8.5-090710	TO-15	1,2,4-Trimethylbenzene	-	U
VMP-18-8.5-090710	TO-15	1,3-Dichlorobenzene	-	U
VMP-18-8.5-090710	TO-15	1,4-Dichlorobenzene	-	U
VMP-18-8.5-090710	TO-15	alpha-Chlorotoluene	-	U
VMP-18-8.5-090710	TO-15	1,2-Dichlorobenzene	-	U
VMP-18-8.5-090710	TO-15	1,2,4-Trichlorobenzene	-	U
VMP-18-8.5-090710	TO-15	Hexachlorobutadiene	-	U
VMP-11-8-090810	TO-15	Carbon disulfide	1.6 ppbv/4.9 $\mu\text{g}/\text{m}^3$	U
VMP-11-8-090810	TO-15	m,p-Xylenes	-	U
VMP-10-10-090710	TO-15	2-Propanol	-	U
VMP-10-20-090710-Dup	TO-15	Methylene chloride	7.6 ppbv/26 $\mu\text{g}/\text{m}^3$	U
VMP-11-5-090710	TO-15	2-Propanol	5.5 ppbv/13 $\mu\text{g}/\text{m}^3$	U
VMP-10-20-090710	TO-15	Methylene chloride		U
VMP-5-31-090910	Natural gases	Helium	-	U
VMP-10-10-090710	Natural gases	Helium	-	U
VMP-10-5-090710	Natural gases	Helium	-	U
VMP-11-5-090710	Natural gases	Helium	-	U
VMP-6-5-090810	Natural gases	Helium	-	U
VMP-10-20-090710	Natural gases	Helium	-	U
VMP-12-25-090310	Natural gases	Helium	-	U
VMP-6-10-090810	Natural gases	Helium	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
1009223A-23D	TO-15	Hexachlorobutadiene	134/124	8	70-130/25

Analytical data reported as nondetect and associated with LCS recoveries above evaluation criteria indicating a possible high bias did not require qualification. No qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery	Criteria
VMP-6-10-090810	TO-15	1,2-Dichloroethane-d ₄	142	70-130

Analytical data that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
VMP-6-10-090810	TO-15	All TO-15 detects	J

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
VMP-10-20-090710	VMP-10-20-090710-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
VMP-10-20-090710	VMP-10-20-090710-Dup	TO-15	Ethanol	>2xRL	J
VMP-10-20-090710	VMP-10-20-090710-Dup	TO-15	2,2,4-Trimethylpentane	>2xRL	J
VMP-10-20-090710	VMP-10-20-090710-Dup	TO-15	Benzene	67	J

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

9/22/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009223A

Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/10/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/27/2010

WORK ORDER #: 1009223A

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

P.O. # 21562289.00011

FAX:

PROJECT # Roxana Dissolved Phase

DATE RECEIVED: 09/10/2010

CONTACT: Jacquelyn Luta

DATE COMPLETED: 09/21/2010

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-5-5-090910 /	Modified TO-15	7.0 "Hg	15 psi
02A	VMP-3-31.5-090910 /	Modified TO-15	1.5 "Hg	15 psi
03A	VMP-11-8-090810 /	Modified TO-15	6.5 "Hg	15 psi
05A	VMP-8-12.5-090910 /	Modified TO-15	7.0 "Hg	15 psi
06A	VMP-3-5-090910 /	Modified TO-15	1.5 "Hg	15 psi
07A	VMP-5-31-090910 /	Modified TO-15	2.5 "Hg	15 psi
08A	VMP-10-10-090710 /	Modified TO-15	7.0 "Hg	15 psi
09A	VMP-6-31.5-090810 /	Modified TO-15	6.5 "Hg	15 psi
10A	VMP-10-5-090710 /	Modified TO-15	7.0 "Hg	15 psi
11A	VMP-10-20-090710-DUP /	Modified TO-15	6.5 "Hg	15 psi
12A	VMP-11-29-090810 /	Modified TO-15	6.5 "Hg	15 psi
12B	VMP-11-29-090810 /	Modified TO-15	6.5 "Hg	15 psi
13A	VMP-11-5-090710 /	Modified TO-15	5.5 "Hg	15 psi
14A	VMP-6-5-090810 /	Modified TO-15	7.0 "Hg	15 psi
15A	VMP-10-20-090710 /	Modified TO-15	8.0 "Hg	15 psi
16A	VMP-12-11.5-090310 /	Modified TO-15	8.0 "Hg	15 psi
17A	VMP-12-5-090310	Modified TO-15	7.5 "Hg	15 psi

Continued on next page

WORK ORDER #: 1009223A

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

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DATE RECEIVED: 09/10/2010

DATE COMPLETED: 09/21/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
18A	VMP-16-19-090210 ✓	Modified TO-15	5.5 "Hg	15 psi
19A	VMP-12-25-090310 ✓	Modified TO-15	7.0 "Hg	15 psi
19B	VMP-12-25-090310 ✓	Modified TO-15	7.0 "Hg	15 psi
20A	VMP-6-10-090810 ✓	Modified TO-15	4.5 "Hg	15 psi
21A	Lab Blank	Modified TO-15	NA	NA
21B	Lab Blank	Modified TO-15	NA	NA
21C	Lab Blank	Modified TO-15	NA	NA
21D	Lab Blank	Modified TO-15	NA	NA
22A	CCV	Modified TO-15	NA	NA
22B	CCV	Modified TO-15	NA	NA
22C	CCV	Modified TO-15	NA	NA
22D	CCV	Modified TO-15	NA	NA
23A	LCS	Modified TO-15	NA	NA
23AA	LCSD	Modified TO-15	NA	NA
23B	LCS	Modified TO-15	NA	NA
23BB	LCSD	Modified TO-15	NA	NA
23C	LCS	Modified TO-15	NA	NA
23CC	LCSD	Modified TO-15	NA	NA
23D	LCS	Modified TO-15	NA	NA
23DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:

Sandra D. Freeman

Laboratory Director

DATE: 09/21/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009223A**

Nineteen 1 Liter Summa Canister samples were received on September 10, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Due to high-level target compounds, samples VMP-11-29-090810 and VMP-12-25-090310 were analyzed twice. In the "A" fraction, the sample was diluted to bring the highest-level compounds within the calibration range. The "B" fraction is also reported by client request and may be reported with "E" flags indicating the compound exceeds the calibration range. Both runs and associated QC are reported.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on samples VMP-5-5-090910, VMP-3-5-090910, VMP-5-31-090910, VMP-6-31.5-090810, VMP-6-5-090810, and VMP-12-5-090310 due to the presence of high level non-target species.

The recovery of surrogate 1,2-Dichloroethane-d4 in sample VMP-6-10-090810 was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UI- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-5-5-090910

Lab ID#: 1009223A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	2600	430000	9300	1500000
Cyclohexane	2600	120000	9100	400000
2,2,4-Trimethylpentane	2600	350000	12000	1600000
Benzene	2600	2400 J	8400	7600 J
Heptane	2600	33000	11000	140000
m,p-Xylene	2600	2100 J	11000	9000 J
o-Xylene	2600	1500 J	11000	6400 J
Propylbenzene	2600	970 J	13000	4800 J
4-Ethyltoluene	2600	4000	13000	20000
1,3,5-Trimethylbenzene	2600	1400 J	13000	6900 J
1,2,4-Trimethylbenzene	2600	2600	13000	13000

Client Sample ID: VMP-3-31.5-090910

Lab ID#: 1009223A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	7600	7200000	27000	25000000
Cyclohexane	7600	320000	26000	1100000
2,2,4-Trimethylpentane	7600	1800000	36000	8300000
Benzene	7600	66000	24000	210000
Heptane	7600	280000	31000	1100000
Toluene	7600	4500 J	29000	17000 J
Ethyl Benzene	7600	13000	33000	57000
m,p-Xylene	7600	20000	33000	87000
o-Xylene	7600	5900 J	33000	26000 J
Propylbenzene	7600	3400 J	37000	17000 J
4-Ethyltoluene	7600	11000	37000	53000
1,3,5-Trimethylbenzene	7600	3500 J	37000	17000 J
1,2,4-Trimethylbenzene	7600	7800	37000	38000

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-11-8-090810

Lab ID#: 1009223A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.77 J	6.4	3.8 J
Freon 11	1.3	0.36 J	7.2	2.0 J
Ethanol	5.2	6.8	9.7	13
Acetone	5.2	7.1	12	17
2-Propanol	5.2	3.0 J	13	7.3 J
Carbon Disulfide	~~1.6~~ 1.3	0.0 ND 1.8 "u" 4.7	~~4.8~~ 4.5	0.0 ND 4.8 "u"
Methylene Chloride	1.3	14	4.5	47
Hexane	1.3	0.96 J	4.5	3.4 J
2-Butanone (Methyl Ethyl Ketone)	1.3	0.79 J	3.8	2.3 J
Chloroform	1.3	0.28 J	6.3	1.4 J
Cyclohexane	1.3	0.25 J	4.4	0.85 J
2,2,4-Trimethylpentane	1.3	2.3	6.0	10
Benzene	1.3	7.7	4.1	24
Heptane	1.3	0.40 J	5.3	1.6 J
Toluene	1.3	0.67 J	4.9	2.5 J
m,p-Xylene	1.3	0.0 ND 2.3 "u"	5.6	0.0 ND 1.8 "u"

Client Sample ID: VMP-12-5-090910

Lab ID#: 1009223A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	5300	3200 J	12000	7600 J
Hexane	1300	380000	4600	1300000
Cyclohexane	1300	110000	4500	360000
2,2,4-Trimethylpentane	1300	320000	6200	1500000
Benzene	1300	3400	4200	11000
Heptane	1300	29000	5400	120000
m,p-Xylene	1300	740 J	5700	3200 J
o-Xylene	1300	500 J	5700	2200 J
Propylbenzene	1300	430 J	6500	2100 J
4-Ethyltoluene	1300	1900	6500	9200

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-^{"5"}~~8~~12.5-090910

Lab ID#: 1009223A-05A

1,3,5-Trimethylbenzene	1300	610 J	6500	3000 J
1,2,4-Trimethylbenzene	1300	1200 J	6500	6100 J

Client Sample ID: VMP-3-5-090910

Lab ID#: 1009223A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1300	31000	4700	110000
Cyclohexane	1300	62000	4600	210000
2,2,4-Trimethylpentane	1300	250000	6200	1200000
Benzene	1300	2400	4200	7800
Heptane	1300	1200 J	5400	4800 J

Client Sample ID: VMP-5-31-090910

Lab ID#: 1009223A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	5500	2200000	19000	7700000
Cyclohexane	5500	470000	19000	1600000
2,2,4-Trimethylpentane	5500	940000	26000	4400000
Benzene	5500	63000	18000	200000
Heptane	5500	320000	22000	1300000
Toluene	5500	1100 J	21000	4300 J
m,p-Xylene	5500	1800 J	24000	7700 J

Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.51 J	6.5	2.5 J
Freon 11	1.3	0.17 J	7.4	0.97 J
Ethanol	5.3	4.2 J	9.9	7.9 J
Acetone	5.3	9.8	12	23

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223A-08A

2-Propanol	5.3	0.0ND 4.311"	13	0.0ND 10.11"
Carbon Disulfide	1.3	13	4.1	40
Hexane	1.3	0.47 J	4.6	1.6 J
2-Butanone (Methyl Ethyl Ketone)	1.3	1.1 J	3.9	3.3 J
Cyclohexane	1.3	1.5	4.5	5.2
2,2,4-Trimethylpentane	1.3	10	6.2	48
Benzene	1.3	24	4.2	75
Heptane	1.3	0.42 J	5.4	1.7 J
1,4-Dioxane	5.3	2.1 J	19	7.7 J
4-Methyl-2-pentanone	1.3	0.28 J	5.4	1.2 J
Toluene	1.3	0.36 J	5.0	1.4 J
Tetrachloroethene	1.3	0.35 J	9.0	2.4 J
m,p-Xylene	1.3	0.26 J	5.7	1.1 J

Client Sample ID: VMP-6-31.5-090810

Lab ID#: 1009223A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	6400	1600 J	16000	4000 J
Hexane	1600	910000	5700	3200000
Cyclohexane	1600	300000	5500	1000000
2,2,4-Trimethylpentane	1600	660000	7500	3100000
Benzene	1600	9100	5100	29000
Heptane	1600	470000	6600	1900000
Ethyl Benzene	1600	38000	7000	160000
m,p-Xylene	1600	12000	7000	51000
Cumene	1600	4000	7900	19000
Propylbenzene	1600	8600	7900	42000
4-Ethyltoluene	1600	3200	7900	16000
1,3,5-Trimethylbenzene	1600	1100 J	7900	5300 J
1,2,4-Trimethylbenzene	1600	4400	7900	22000

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.48 J	6.5	2.4 J
Bromomethane	1.3	0.62 J	5.1	2.4 J
Freon 11	1.3	0.18 J	7.4	1.0 J
Ethanol	5.3	7.8	9.9	15
Acetone	5.3	9.9	12	24
2-Propanol	5.3	8.1	13	20
Carbon Disulfide	1.3	3.4	4.1	10
Hexane	1.3	4.3	4.6	15
2-Butanone (Methyl Ethyl Ketone)	1.3	1.4	3.9	4.0
Cyclohexane	1.3	2.7	4.5	9.2
2,2,4-Trimethylpentane	1.3	20	6.2	93
Benzene	1.3	32	4.2	100
Heptane	1.3	1.7	5.4	7.1
4-Methyl-2-pentanone	1.3	0.38 J	5.4	1.6 J
Toluene	1.3	3.7	5.0	14
Tetrachloroethene	1.3	0.25 J	9.0	1.7 J
Ethyl Benzene	1.3	2.1	5.7	9.0
m,p-Xylene	1.3	3.2	5.7	14
o-Xylene	1.3	1.5	5.7	6.5
Styrene	1.3	0.69 J	5.6	2.9 J
Cumene	1.3	0.41 J	6.5	2.0 J
Propylbenzene	1.3	0.71 J	6.5	3.5 J
4-Ethyltoluene	1.3	1.4	6.5	7.2
1,3,5-Trimethylbenzene	1.3	0.48 J	6.5	2.3 J
1,2,4-Trimethylbenzene	1.3	1.4	6.5	7.0

Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.66 J	6.4	3.3 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223A-11A

Freon 11	1.3	0.33 J	7.2	1.8 J
Ethanol	5.2	26 "J"	9.7	48 "J"
Acetone	5.2	12	12	29
2-Propanol	5.2	13	13	33
Carbon Disulfide	1.3	1.1 J	4.0	3.4 J
Methylene Chloride	~~7.6~~ 0.0ND	~~7.6~~ "u" 26	~~4.6~~ 0.0ND	~~26~~ "u"
Hexane	1.3	1.2 J	4.5	4.3 J
2-Butanone (Methyl Ethyl Ketone)	1.3	1.6	3.8	4.6
Tetrahydrofuran	1.3	1.4	3.8	4.2
Cyclohexane	1.3	0.60 J	4.4	2.0 J
2,2,4-Trimethylpentane	1.3	2.4 "J"	6.0	11 "J"
Benzene	1.3	6.0 "J"	4.1	19 "J"
Heptane	1.3	0.62 J	5.3	2.5 J
4-Methyl-2-pentanone	1.3	0.24 J	5.3	0.96 J
Toluene	1.3	2.6	4.9	9.8
Tetrachloroethene	1.3	0.10 J	8.8	0.70 J
Ethyl Benzene	1.3	0.39 J	5.6	1.7 J
m,p-Xylene	1.3	0.85 J	5.6	3.7 J
o-Xylene	1.3	0.30 J	5.6	1.3 J
1,2,4-Trimethylbenzene	1.3	0.26 J	6.3	1.3 J

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223A-12A

"DF = 12.9"

* "Use these results only. All other data was reported from the 6.45x dilution analysis."

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	64	27 J	230	94 J
2,2,4-Trimethylpentane	64	220	300	1000
* Benzene	64	38000	210	120000
m,p-Xylene	64	32 J	280	140 J
o-Xylene	64	26 J	280	140 J
1-Ethyltoluene	64	77	320	380
1,3,5-Trimethylbenzene	64	26 J	320	130 J
1,2,4-Trimethylbenzene	64	53 J	320	260 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

* "Do not use this data.
Use all other data."

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223A-12B

"DF = 6.45"

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	32	15 J	120	53 J
Hexane	32	30 J	110	100 J
Cyclohexane	32	20 J	110	68 J
2,2,4-Trimethylpentane	32	240	150	1100
* Benzene	32	40000 E	100	130000 E
Ethyl Benzene	32	7.6 J	140	33 J
m,p-Xylene	32	23 J	140	100 J
o-Xylene	32	16 J	140	72 J
Propylbenzene	32	12 J	160	59 J
4-Ethyltoluene	32	52	160	260
1,3,5-Trimethylbenzene	32	18 J	160	88 J
1,2,4-Trimethylbenzene	32	35	160	170

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.50 J	6.1	2.5 J
Freon 11	1.2	0.22 J	6.9	1.2 J
Ethanol	4.9	5.2	9.3	9.9
Acetone	4.9	15	12	36
2-Propanol	5.2 J	0.0ND 5.5 u"	13 J	0.0ND 13 u"
Carbon Disulfide	1.2	0.68 J	3.8	2.1 J
2-Butanone (Methyl Ethyl Ketone)	1.2	1.6	3.6	4.8
Chloroform	1.2	0.39 J	6.0	1.9 J
Cyclohexane	1.2	0.35 J	4.2	1.2 J
2,2,4-Trimethylpentane	1.2	8.8	5.8	41
Benzene	1.2	4.4	3.9	14
Heptane	1.2	0.24 J	5.1	1.0 J
4-Methyl-2-pentanone	1.2	0.21 J	5.0	0.85 J
Toluene	1.2	0.80 J	4.6	3.0 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223A-13A

Ethyl Benzene	1.2	0.43 J	5.4	1.9 J
m,p-Xylene	1.2	0.34 J	5.4	1.5 J
Propylbenzene	1.2	0.18 J	6.1	0.87 J

Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	220	38000	780	130000
Cyclohexane	220	22000	760	76000
2,2,4-Trimethylpentane	220	73000	1000	340000
Benzene	220	310	700	1000
Heptane	220	10000	900	43000
m,p-Xylene	220	110 J	960	470 J
o-Xylene	220	76 J	960	330 J
4-Ethyltoluene	220	210 J	1100	1000 J
1,3,5-Trimethylbenzene	220	70 J	1100	340 J
1,2,4-Trimethylbenzene	220	150 J	1100	740 J

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.54 J	6.8	2.7 J
Freon 11	1.4	0.23 J	7.8	1.3 J
Ethanol	5.5	6.5 J	10	12 J
Acetone	5.5	15	13	36
2-Propanol	5.5	9.4	14	23
Carbon Disulfide	1.4	0.68 J	4.3	2.1 J
Methylene Chloride	1.4	0.0 ND	4.8	0.0 ND
Hexane	1.4	1.7	4.9	6.1
2-Butanone (Methyl Ethyl Ketone)	1.4	2.0	4.1	5.8
Tetrahydrofuran	1.4	1.2 J	4.1	3.6 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223A-15A

Cyclohexane	1.4	1.0 J	4.8	3.5 J
2,2,4-Trimethylpentane	1.4	5.8 "J"	6.4	27 "J"
Benzene	1.4	12 "J"	4.4	39 "J"
Heptane	1.4	0.90 J	5.6	3.7 J
4-Methyl-2-pentanone	1.4	0.24 J	5.6	0.98 J
Toluene	1.4	1.3 J	5.2	5.0 J
Ethyl Benzene	1.4	0.47 J	6.0	2.0 J
m,p-Xylene	1.4	0.99 J	6.0	4.3 J
o-Xylene	1.4	0.34 J	6.0	1.5 J
1,2,4-Trimethylbenzene	1.4	0.32 J	6.8	1.6 J

Client Sample ID: VMP-12-11.5-090310

Lab ID#: 1009223A-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	6900	990 J	17000	2400 J
Hexane	1700	12000	6100	41000
Cyclohexane	1700	170000	5900	580000
2,2,4-Trimethylpentane	1700	370000	8000	1700000
Benzene	1700	1300000	5500	4100000
Heptane	1700	1100 J	7100	4500 J
Toluene	1700	300 J	6500	1100 J
Ethyl Benzene	1700	1200 J	7500	5400 J
Cumene	1700	1800	8500	9100
Propylbenzene	1700	2300	8500	11000

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223A-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	5400	1500 J	13000	3600 J
Hexane	1300	3000	4700	11000
Cyclohexane	1300	120000	4600	410000

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223A-17A

2,2,4-Trimethylpentane	1300	370000	6300	1700000
Benzene	1300	72000	4300	230000
Toluene	1300	270 J	5100	1000 J
Cumene	1300	590 J	6600	2900 J
Propylbenzene	1300	600 J	6600	3000 J

Client Sample ID: VMP-16-19-090210

Lab ID#: 1009223A-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	2500	860 J	8900	3100 J
Hexane	2500	2100 J	8700	7500 J
Cyclohexane	2500	54000	8500	190000
2,2,4-Trimethylpentane	2500	2200000	12000	10000000
Benzene	2500	8600	7900	27000
Heptane	2500	3400	10000	14000
Ethyl Benzene	2500	5200	11000	23000
m,p-Xylene	2500	1900 J	11000	8200 J
Cumene	2500	4900	12000	24000
Propylbenzene	2500	7200	12000	35000
4-Ethyltoluene	2500	650 J	12000	3200 J
1,2,4-Trimethylbenzene	2500	780 J	12000	3800 J

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19A

** "Use these results only. All other data was reported from the 440% dilution analysis."*

DF = 880

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	4400	260000	16000	890000
Cyclohexane	4400	200000	15000	680000
2,2,4-Trimethylpentane	4400	350000	20000	1600000
Benzene	4400	4400000	14000	14000000
Heptane	4400	27000	18000	110000
Toluene	4400	700 J	16000	3000 J

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19A

Ethyl Benzene	4400	3400 J	19000	15000 J
Cumene	4400	4500	22000	22000
Propylbenzene	4400	5500	22000	27000

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19B

"DF = 440"

* "Do not use this data. Use all other data."

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	2200	240000	7800	860000
Cyclohexane	2200	190000	7600	650000
2,2,4-Trimethylpentane	2200	280000	10000	1300000
* Benzene	2200	3800000 E	7000	12000000 E
Heptane	2200	25000	9000	100000
Toluene	2200	780 J	8300	2900 J
Ethyl Benzene	2200	3100	9600	14000
Cumene	2200	4000	11000	20000
Propylbenzene	2200	5300	11000	26000

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223A-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	240	110000 J"	840	400000 J"
Cyclohexane	240	70000 J"	820	240000 J"
2,2,4-Trimethylpentane	240	200000 J"	1100	930000 J"
Benzene	240	910 J"	760	2900 J"
Heptane	240	39000 J"	980	160000 J"
Ethyl Benzene	240	160 J"	1000	680 J"
m,p-Xylene	240	190 J"	1000	830 J"
o-Xylene	240	73 J"	1000	320 J"
Cumene	240	110 J"	1200	540 J"
Propylbenzene	240	150 J"	1200	730 J"
4-Ethyltoluene	240	180 J"	1200	900 J"

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223A-20A

1,3,5-Trimethylbenzene	240	58 	1200	290 
1,2,4-Trimethylbenzene	240	130 	1200	620 

Client Sample ID: VMP-5-5-090910

Lab ID#: 1009223A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091515	Date of Collection: 9/9/10 9:53:00 AM		
Dil. Factor:	528	Date of Analysis: 9/15/10 02:52 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2600	Not Detected	13000	Not Detected
Freon 114	2600	Not Detected	18000	Not Detected
Chloromethane	10000	Not Detected	22000	Not Detected
Vinyl Chloride	2600	Not Detected	6700	Not Detected
1,3-Butadiene	2600	Not Detected	5800	Not Detected
Bromomethane	2600	Not Detected	10000	Not Detected
Chloroethane	2600	Not Detected	7000	Not Detected
Freon 11	2600	Not Detected	15000	Not Detected
Ethanol	10000	Not Detected	20000	Not Detected
Freon 113	2600	Not Detected	20000	Not Detected
1,1-Dichloroethene	2600	Not Detected	10000	Not Detected
Acetone	10000	Not Detected	25000	Not Detected
2-Propanol	10000	Not Detected	26000	Not Detected
Carbon Disulfide	2600	Not Detected	8200	Not Detected
3-Chloropropene	10000	Not Detected	33000	Not Detected
Methylene Chloride	2600	Not Detected	9200	Not Detected
Methyl tert-butyl ether	2600	Not Detected	9500	Not Detected
trans-1,2-Dichloroethene	2600	Not Detected	10000	Not Detected
Hexane	2600	430000	9300	1500000
1,1-Dichloroethane	2600	Not Detected	11000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2600	Not Detected	7800	Not Detected
cis-1,2-Dichloroethene	2600	Not Detected	10000	Not Detected
Tetrahydrofuran	2600	Not Detected	7800	Not Detected
Chloroform	2600	Not Detected	13000	Not Detected
1,1,1-Trichloroethane	2600	Not Detected	14000	Not Detected
Cyclohexane	2600	120000	9100	400000
Carbon Tetrachloride	2600	Not Detected	17000	Not Detected
2,2,4-Trimethylpentane	2600	350000	12000	1600000
Benzene	2600	2400 J	8400	7600 J
1,2-Dichloroethane	2600	Not Detected	11000	Not Detected
Heptane	2600	33000	11000	140000
Trichloroethene	2600	Not Detected	14000	Not Detected
1,2-Dichloropropane	2600	Not Detected	12000	Not Detected
1,4-Dioxane	10000	Not Detected	38000	Not Detected
Bromodichloromethane	2600	Not Detected	18000	Not Detected
cis-1,3-Dichloropropene	2600	Not Detected	12000	Not Detected
4-Methyl-2-pentanone	2600	Not Detected	11000	Not Detected
Toluene	2600	Not Detected	9900	Not Detected
trans-1,3-Dichloropropene	2600	Not Detected	12000	Not Detected
1,1,2-Trichloroethane	2600	Not Detected	14000	Not Detected
Tetrachloroethene	2600	Not Detected	18000	Not Detected

Client Sample ID: VMP-5-5-090910

Lab ID#: 1009223A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091515	Date of Collection: 9/9/10 9:53:00 AM		
Dil. Factor:	528	Date of Analysis: 9/15/10 02:52 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	10000	Not Detected	43000	Not Detected
Dibromochloromethane	2600	Not Detected	22000	Not Detected
1,2-Dibromoethane (EDB)	2600	Not Detected	20000	Not Detected
Chlorobenzene	2600	Not Detected	12000	Not Detected
Ethyl Benzene	2600	Not Detected	11000	Not Detected
m,p-Xylene	2600	2100 J	11000	9000 J
o-Xylene	2600	1500 J	11000	6400 J
Styrene	2600	Not Detected	11000	Not Detected
Bromoform	2600	Not Detected	27000	Not Detected
Cumene	2600	Not Detected	13000	Not Detected
1,1,2,2-Tetrachloroethane	2600	Not Detected	18000	Not Detected
Propylbenzene	2600	970 J	13000	4800 J
4-Ethyltoluene	2600	4000	13000	20000
1,3,5-Trimethylbenzene	2600	1400 J	13000	6900 J
1,2,4-Trimethylbenzene	2600	2600	13000	13000
1,3-Dichlorobenzene	2600	Not Detected	16000	Not Detected
1,4-Dichlorobenzene	2600	Not Detected	16000	Not Detected
alpha-Chlorotoluene	2600	Not Detected	14000	Not Detected
1,2-Dichlorobenzene	2600	Not Detected	16000	Not Detected
1,2,4-Trichlorobenzene	10000	Not Detected	78000	Not Detected
Hexachlorobutadiene	10000	Not Detected	110000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VMP-3-31.5-090910

Lab ID#: 1009223A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091523	Date of Collection: 9/9/10 2:52:00 PM		
Dil. Factor:	1520	Date of Analysis: 9/15/10 10:35 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	7600	Not Detected	38000	Not Detected
Freon 114	7600	Not Detected	53000	Not Detected
Chloromethane	30000	Not Detected	63000	Not Detected
Vinyl Chloride	7600	Not Detected	19000	Not Detected
1,3-Butadiene	7600	Not Detected	17000	Not Detected
Bromomethane	7600	Not Detected	30000	Not Detected
Chloroethane	7600	Not Detected	20000	Not Detected
Freon 11	7600	Not Detected	43000	Not Detected
Ethanol	30000	Not Detected	57000	Not Detected
Freon 113	7600	Not Detected	58000	Not Detected
1,1-Dichloroethene	7600	Not Detected	30000	Not Detected
Acetone	30000	Not Detected	72000	Not Detected
2-Propanol	30000	Not Detected	75000	Not Detected
Carbon Disulfide	7600	Not Detected	24000	Not Detected
3-Chloropropene	30000	Not Detected	95000	Not Detected
Methylene Chloride	7600	Not Detected	26000	Not Detected
Methyl tert-butyl ether	7600	Not Detected	27000	Not Detected
trans-1,2-Dichloroethene	7600	Not Detected	30000	Not Detected
Hexane	7600	7200000	27000	25000000
1,1-Dichloroethane	7600	Not Detected	31000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7600	Not Detected	22000	Not Detected
cis-1,2-Dichloroethene	7600	Not Detected	30000	Not Detected
Tetrahydrofuran	7600	Not Detected	22000	Not Detected
Chloroform	7600	Not Detected	37000	Not Detected
1,1,1-Trichloroethane	7600	Not Detected	41000	Not Detected
Cyclohexane	7600	320000	26000	1100000
Carbon Tetrachloride	7600	Not Detected	48000	Not Detected
2,2,4-Trimethylpentane	7600	1800000	36000	8300000
Benzene	7600	66000	24000	210000
1,2-Dichloroethane	7600	Not Detected	31000	Not Detected
Heptane	7600	280000	31000	1100000
Trichloroethene	7600	Not Detected	41000	Not Detected
1,2-Dichloropropane	7600	Not Detected	35000	Not Detected
1,4-Dioxane	30000	Not Detected	110000	Not Detected
Bromodichloromethane	7600	Not Detected	51000	Not Detected
cis-1,3-Dichloropropene	7600	Not Detected	34000	Not Detected
4-Methyl-2-pentanone	7600	Not Detected	31000	Not Detected
Toluene	7600	4500 J	29000	17000 J
trans-1,3-Dichloropropene	7600	Not Detected	34000	Not Detected
1,1,2-Trichloroethane	7600	Not Detected	41000	Not Detected
Tetrachloroethene	7600	Not Detected	52000	Not Detected

Client Sample ID: VMP-3-31.5-090910

Lab ID#: 1009223A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091523	Date of Collection: 9/9/10 2:52:00 PM		
Dil. Factor:	1520	Date of Analysis: 9/15/10 10:35 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	30000	Not Detected	120000	Not Detected
Dibromochloromethane	7600	Not Detected	65000	Not Detected
1,2-Dibromoethane (EDB)	7600	Not Detected	58000	Not Detected
Chlorobenzene	7600	Not Detected	35000	Not Detected
Ethyl Benzene	7600	13000	33000	57000
m,p-Xylene	7600	20000	33000	87000
o-Xylene	7600	5900 J	33000	26000 J
Styrene	7600	Not Detected	32000	Not Detected
Bromoform	7600	Not Detected	78000	Not Detected
Cumene	7600	Not Detected	37000	Not Detected
1,1,2,2-Tetrachloroethane	7600	Not Detected	52000	Not Detected
Propylbenzene	7600	3400 J	37000	17000 J
4-Ethyltoluene	7600	11000	37000	53000
1,3,5-Trimethylbenzene	7600	3500 J	37000	17000 J
1,2,4-Trimethylbenzene	7600	7800	37000	38000
1,3-Dichlorobenzene	7600	Not Detected	46000	Not Detected
1,4-Dichlorobenzene	7600	Not Detected	46000	Not Detected
alpha-Chlorotoluene	7600	Not Detected	39000	Not Detected
1,2-Dichlorobenzene	7600	Not Detected	46000	Not Detected
1,2,4-Trichlorobenzene	30000	Not Detected	220000	Not Detected
Hexachlorobutadiene	30000	Not Detected	320000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: VMP-11-8-090810

Lab ID#: 1009223A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

MODIFIED EPA METHOD 815-GC/MS FID/SCAN				
File Name:	p091623		Date of Collection: 9/8/10 10:00:00 AM	
Dil. Factor:	2.58		Date of Analysis: 9/16/10 07:58 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.77 J	6.4	3.8 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	Not Detected	5.0	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	0.36 J	7.2	2.0 J
Ethanol	5.2	6.8	9.7	13
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	7.1	12	17
2-Propanol	5.2	3.0 J	13	7.3 J
Carbon Disulfide	1.6 ~~4.3~~	0.0 ND ~~1.0~~ "u"	4.9 ~~4.0~~	0.0 ND ~~4.0~~ "u"
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	1.3	14	4.5	47
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	0.96 J	4.5	3.4 J
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	0.79 J	3.8	2.3 J
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	0.28 J	6.3	1.4 J
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	0.25 J	4.4	0.85 J
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	2.3	6.0	10
Benzene	1.3	7.7	4.1	24
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	0.40 J	5.3	1.6 J
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	0.67 J	4.9	2.5 J
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected

Client Sample ID: VMP-11-8-090810

Lab ID#: 1009223A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091623	Date of Collection:	9/8/10 10:00:00 AM	
Dil. Factor:	2.58	Date of Analysis:	9/16/10 07:58 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.2	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	0.0 ND 0.30 U	5.6	0.0 ND 1.3 U
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: VMP-8/12.5-090910

Lab ID#: 1009223A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091525	Date of Collection: 9/9/10 11:06:00 AM		
Dil. Factor:	264	Date of Analysis: 9/16/10 12:30 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1300	Not Detected	6500	Not Detected
Freon 114	1300	Not Detected	9200	Not Detected
Chloromethane	5300	Not Detected	11000	Not Detected
Vinyl Chloride	1300	Not Detected	3400	Not Detected
1,3-Butadiene	1300	Not Detected	2900	Not Detected
Bromomethane	1300	Not Detected	5100	Not Detected
Chloroethane	1300	Not Detected	3500	Not Detected
Freon 11	1300	Not Detected	7400	Not Detected
Ethanol	5300	Not Detected	9900	Not Detected
Freon 113	1300	Not Detected	10000	Not Detected
1,1-Dichloroethene	1300	Not Detected	5200	Not Detected
Acetone	5300	3200 J	12000	7600 J
2-Propanol	5300	Not Detected	13000	Not Detected
Carbon Disulfide	1300	Not Detected	4100	Not Detected
3-Chloropropene	5300	Not Detected	16000	Not Detected
Methylene Chloride	1300	Not Detected	4600	Not Detected
Methyl tert-butyl ether	1300	Not Detected	4800	Not Detected
trans-1,2-Dichloroethene	1300	Not Detected	5200	Not Detected
Hexane	1300	380000	4600	1300000
1,1-Dichloroethane	1300	Not Detected	5300	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1300	Not Detected	3900	Not Detected
cis-1,2-Dichloroethene	1300	Not Detected	5200	Not Detected
Tetrahydrofuran	1300	Not Detected	3900	Not Detected
Chloroform	1300	Not Detected	6400	Not Detected
1,1,1-Trichloroethane	1300	Not Detected	7200	Not Detected
Cyclohexane	1300	110000	4500	360000
Carbon Tetrachloride	1300	Not Detected	8300	Not Detected
2,2,4-Trimethylpentane	1300	320000	6200	1500000
Benzene	1300	3400	4200	11000
1,2-Dichloroethane	1300	Not Detected	5300	Not Detected
Heptane	1300	29000	5400	120000
Trichloroethene	1300	Not Detected	7100	Not Detected
1,2-Dichloropropane	1300	Not Detected	6100	Not Detected
1,4-Dioxane	5300	Not Detected	19000	Not Detected
Bromodichloromethane	1300	Not Detected	8800	Not Detected
cis-1,3-Dichloropropene	1300	Not Detected	6000	Not Detected
4-Methyl-2-pentanone	1300	Not Detected	5400	Not Detected
Toluene	1300	Not Detected	5000	Not Detected
trans-1,3-Dichloropropene	1300	Not Detected	6000	Not Detected
1,1,2-Trichloroethane	1300	Not Detected	7200	Not Detected
Tetrachloroethene	1300	Not Detected	9000	Not Detected

"5"

Client Sample ID: VMP-8-12.5-090910

Lab ID#: 1009223A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091525	Date of Collection:	9/9/10 11:06:00 AM	
Dil. Factor:	264	Date of Analysis:	9/16/10 12:30 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5300	Not Detected	22000	Not Detected
Dibromochloromethane	1300	Not Detected	11000	Not Detected
1,2-Dibromoethane (EDB)	1300	Not Detected	10000	Not Detected
Chlorobenzene	1300	Not Detected	6100	Not Detected
Ethyl Benzene	1300	Not Detected	5700	Not Detected
m,p-Xylene	1300	740 J	5700	3200 J
o-Xylene	1300	500 J	5700	2200 J
Styrene	1300	Not Detected	5600	Not Detected
Bromoform	1300	Not Detected	14000	Not Detected
Cumene	1300	Not Detected	6500	Not Detected
1,1,2,2-Tetrachloroethane	1300	Not Detected	9100	Not Detected
Propylbenzene	1300	430 J	6500	2100 J
4-Ethyltoluene	1300	1900	6500	9200
1,3,5-Trimethylbenzene	1300	610 J	6500	3000 J
1,2,4-Trimethylbenzene	1300	1200 J	6500	6100 J
1,3-Dichlorobenzene	1300	Not Detected	7900	Not Detected
1,4-Dichlorobenzene	1300	Not Detected	7900	Not Detected
alpha-Chlorotoluene	1300	Not Detected	6800	Not Detected
1,2-Dichlorobenzene	1300	Not Detected	7900	Not Detected
1,2,4-Trichlorobenzene	5300	Not Detected	39000	Not Detected
Hexachlorobutadiene	5300	Not Detected	56000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VMP-3-5-090910

Lab ID#: 1009223A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091722	Date of Collection: 9/9/10 1:44:00 PM		
Dil. Factor:	266	Date of Analysis: 9/18/10 12:52 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1300	Not Detected	6600	Not Detected
Freon 114	1300	Not Detected	9300	Not Detected
Chloromethane	5300	Not Detected	11000	Not Detected
Vinyl Chloride	1300	Not Detected	3400	Not Detected
1,3-Butadiene	1300	Not Detected	2900	Not Detected
Bromomethane	1300	Not Detected	5200	Not Detected
Chloroethane	1300	Not Detected	3500	Not Detected
Freon 11	1300	Not Detected	7500	Not Detected
Ethanol	5300	Not Detected	10000	Not Detected
Freon 113	1300	Not Detected	10000	Not Detected
1,1-Dichloroethene	1300	Not Detected	5300	Not Detected
Acetone	5300	Not Detected	13000	Not Detected
2-Propanol	5300	Not Detected	13000	Not Detected
Carbon Disulfide	1300	Not Detected	4100	Not Detected
3-Chloropropene	5300	Not Detected	17000	Not Detected
Methylene Chloride	1300	Not Detected	4600	Not Detected
Methyl tert-butyl ether	1300	Not Detected	4800	Not Detected
trans-1,2-Dichloroethene	1300	Not Detected	5300	Not Detected
Hexane	1300	31000	4700	110000
1,1-Dichloroethane	1300	Not Detected	5400	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1300	Not Detected	3900	Not Detected
cis-1,2-Dichloroethene	1300	Not Detected	5300	Not Detected
Tetrahydrofuran	1300	Not Detected	3900	Not Detected
Chloroform	1300	Not Detected	6500	Not Detected
1,1,1-Trichloroethane	1300	Not Detected	7200	Not Detected
Cyclohexane	1300	62000	4600	210000
Carbon Tetrachloride	1300	Not Detected	8400	Not Detected
2,2,4-Trimethylpentane	1300	250000	6200	1200000
Benzene	1300	2400	4200	7800
1,2-Dichloroethane	1300	Not Detected	5400	Not Detected
Heptane	1300	1200 J	5400	4800 J
Trichloroethene	1300	Not Detected	7100	Not Detected
1,2-Dichloropropane	1300	Not Detected	6100	Not Detected
1,4-Dioxane	5300	Not Detected	19000	Not Detected
Bromodichloromethane	1300	Not Detected	8900	Not Detected
cis-1,3-Dichloropropene	1300	Not Detected	6000	Not Detected
4-Methyl-2-pentanone	1300	Not Detected	5400	Not Detected
Toluene	1300	Not Detected	5000	Not Detected
trans-1,3-Dichloropropene	1300	Not Detected	6000	Not Detected
1,1,2-Trichloroethane	1300	Not Detected	7200	Not Detected
Tetrachloroethene	1300	Not Detected	9000	Not Detected

Client Sample ID: VMP-3-5-090910

Lab ID#: 1009223A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091722	Date of Collection: 9/9/10 1:44:00 PM		
Dil. Factor:	266	Date of Analysis: 9/18/10 12:52 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5300	Not Detected	22000	Not Detected
Dibromochloromethane	1300	Not Detected	11000	Not Detected
1,2-Dibromoethane (EDB)	1300	Not Detected	10000	Not Detected
Chlorobenzene	1300	Not Detected	6100	Not Detected
Ethyl Benzene	1300	Not Detected	5800	Not Detected
m,p-Xylene	1300	Not Detected	5800	Not Detected
o-Xylene	1300	Not Detected	5800	Not Detected
Styrene	1300	Not Detected	5700	Not Detected
Bromoform	1300	Not Detected	14000	Not Detected
Cumene	1300	Not Detected	6500	Not Detected
1,1,2,2-Tetrachloroethane	1300	Not Detected	9100	Not Detected
Propylbenzene	1300	Not Detected	6500	Not Detected
4-Ethyltoluene	1300	Not Detected	6500	Not Detected
1,3,5-Trimethylbenzene	1300	Not Detected	6500	Not Detected
1,2,4-Trimethylbenzene	1300	Not Detected	6500	Not Detected
1,3-Dichlorobenzene	1300	Not Detected	8000	Not Detected
1,4-Dichlorobenzene	1300	Not Detected	8000	Not Detected
alpha-Chlorotoluene	1300	Not Detected	6900	Not Detected
1,2-Dichlorobenzene	1300	Not Detected	8000	Not Detected
1,2,4-Trichlorobenzene	5300	Not Detected	39000	Not Detected
Hexachlorobutadiene	5300	Not Detected	57000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: VMP-5-31-090910

Lab ID#: 1009223A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091721	Date of Collection: 9/9/10 12:11:00 PM		
Dil. Factor:	1100	Date of Analysis: 9/18/10 12:02 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5500	Not Detected	27000	Not Detected
Freon 114	5500	Not Detected	38000	Not Detected
Chloromethane	22000	Not Detected	45000	Not Detected
Vinyl Chloride	5500	Not Detected	14000	Not Detected
1,3-Butadiene	5500	Not Detected	12000	Not Detected
Bromomethane	5500	Not Detected	21000	Not Detected
Chloroethane	5500	Not Detected	14000	Not Detected
Freon 11	5500	Not Detected	31000	Not Detected
Ethanol	22000	Not Detected	41000	Not Detected
Freon 113	5500	Not Detected	42000	Not Detected
1,1-Dichloroethene	5500	Not Detected	22000	Not Detected
Acetone	22000	Not Detected	52000	Not Detected
2-Propanol	22000	Not Detected	54000	Not Detected
Carbon Disulfide	5500	Not Detected	17000	Not Detected
3-Chloropropene	22000	Not Detected	69000	Not Detected
Methylene Chloride	5500	Not Detected	19000	Not Detected
Methyl tert-butyl ether	5500	Not Detected	20000	Not Detected
trans-1,2-Dichloroethene	5500	Not Detected	22000	Not Detected
Hexane	5500	2200000	19000	7700000
1,1-Dichloroethane	5500	Not Detected	22000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5500	Not Detected	18000	Not Detected
cis-1,2-Dichloroethene	5500	Not Detected	22000	Not Detected
Tetrahydrofuran	5500	Not Detected	16000	Not Detected
Chloroform	5500	Not Detected	27000	Not Detected
1,1,1-Trichloroethane	5500	Not Detected	30000	Not Detected
Cyclohexane	5500	470000	19000	1600000
Carbon Tetrachloride	5500	Not Detected	35000	Not Detected
2,2,4-Trimethylpentane	5500	940000	26000	4400000
Benzene	5500	63000	18000	200000
1,2-Dichloroethane	5500	Not Detected	22000	Not Detected
Heptane	5500	320000	22000	1300000
Trichloroethene	5500	Not Detected	30000	Not Detected
1,2-Dichloropropane	5500	Not Detected	25000	Not Detected
1,4-Dioxane	22000	Not Detected	79000	Not Detected
Bromodichloromethane	5500	Not Detected	37000	Not Detected
cis-1,3-Dichloropropene	5500	Not Detected	25000	Not Detected
4-Methyl-2-pentanone	5500	Not Detected	22000	Not Detected
Toluene	5500	1100 J	21000	4300 J
trans-1,3-Dichloropropene	5500	Not Detected	25000	Not Detected
1,1,2-Trichloroethane	5500	Not Detected	30000	Not Detected
Tetrachloroethene	5500	Not Detected	37000	Not Detected

Client Sample ID: VMP-S-31-090910

Lab ID#: 1009223A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091721	Date of Collection: 9/9/10 12:11:00 PM		
Dil. Factor:	1100	Date of Analysis: 9/18/10 12:02 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	22000	Not Detected	90000	Not Detected
Dibromochloromethane	5500	Not Detected	47000	Not Detected
1,2-Dibromoethane (EDB)	5500	Not Detected	42000	Not Detected
Chlorobenzene	5500	Not Detected	25000	Not Detected
Ethyl Benzene	5500	Not Detected	24000	Not Detected
m,p-Xylene	5500	1800 J	24000	7700 J
o-Xylene	5500	Not Detected	24000	Not Detected
Styrene	5500	Not Detected	23000	Not Detected
Bromoform	5500	Not Detected	57000	Not Detected
Cumene	5500	Not Detected	27000	Not Detected
1,1,2,2-Tetrachloroethane	5500	Not Detected	38000	Not Detected
Propylbenzene	5500	Not Detected	27000	Not Detected
4-Ethyltoluene	5500	Not Detected	27000	Not Detected
1,3,5-Trimethylbenzene	5500	Not Detected	27000	Not Detected
1,2,4-Trimethylbenzene	5500	Not Detected	27000	Not Detected
1,3-Dichlorobenzene	5500	Not Detected	33000	Not Detected
1,4-Dichlorobenzene	5500	Not Detected	33000	Not Detected
alpha-Chlorotoluene	5500	Not Detected	28000	Not Detected
1,2-Dichlorobenzene	5500	Not Detected	33000	Not Detected
1,2,4-Trichlorobenzene	22000	Not Detected	160000	Not Detected
Hexachlorobutadiene	22000	Not Detected	230000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091624	Date of Collection:	9/7/10 12:14:00 PM	
Dil. Factor:	2.64	Date of Analysis:	9/16/10 08:16 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.51 J	6.5	2.5 J
Freon 114	1.3	Not Detected	9.2	Not Detected
Chloromethane	5.3	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	2.9	Not Detected
Bromomethane	1.3	Not Detected	5.1	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.17 J	7.4	0.97 J
Ethanol	5.3	4.2 J	9.9	7.9 J
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Acetone	5.3	9.8	12	23
2-Propanol	5.3	0.0 ND 4.8 J	13	0.0 ND 18 J
Carbon Disulfide	1.3	13	4.1	40
3-Chloropropene	5.3	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Hexane	1.3	0.47 J	4.6	1.6 J
1,1-Dichloroethane	1.3	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	1.1 J	3.9	3.3 J
cis-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.9	Not Detected
Chloroform	1.3	Not Detected	6.4	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Cyclohexane	1.3	1.5	4.5	5.2
Carbon Tetrachloride	1.3	Not Detected	8.3	Not Detected
2,2,4-Trimethylpentane	1.3	10	6.2	48
Benzene	1.3	24	4.2	75
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Heptane	1.3	0.42 J	5.4	1.7 J
Trichloroethene	1.3	Not Detected	7.1	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.1	Not Detected
1,4-Dioxane	5.3	2.1 J	19	7.7 J
Bromodichloromethane	1.3	Not Detected	8.8	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	1.3	0.28 J	5.4	1.2 J
Toluene	1.3	0.36 J	5.0	1.4 J
trans-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Tetrachloroethene	1.3	0.35 J	9.0	2.4 J

Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091624	Date of Collection: 9/7/10 12:14:00 PM		
Dil. Factor:	2.64	Date of Analysis: 9/16/10 08:16 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.3	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.1	Not Detected
Ethyl Benzene	1.3	Not Detected	5.7	Not Detected
m,p-Xylene	1.3	0.26 J	5.7	1.1 J
o-Xylene	1.3	Not Detected	5.7	Not Detected
Styrene	1.3	Not Detected	5.6	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.5	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.1	Not Detected
Propylbenzene	1.3	Not Detected	6.5	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.5	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.5	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,2,4-Trichlorobenzene	5.3	Not Detected	39	Not Detected
Hexachlorobutadiene	5.3	Not Detected	56	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: VMP-6-31.5-090810

Lab ID#: 1009223A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091719	Date of Collection: 9/8/10 3:42:00 PM		
Dil. Factor:	322	Date of Analysis: 9/17/10 10:48 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1600	Not Detected	8000	Not Detected
Freon 114	1600	Not Detected	11000	Not Detected
Chloromethane	6400	Not Detected	13000	Not Detected
Vinyl Chloride	1600	Not Detected	4100	Not Detected
1,3-Butadiene	1600	Not Detected	3600	Not Detected
Bromomethane	1600	Not Detected	6200	Not Detected
Chloroethane	1600	Not Detected	4200	Not Detected
Freon 11	1600	Not Detected	9000	Not Detected
Ethanol	6400	Not Detected	12000	Not Detected
Freon 113	1600	Not Detected	12000	Not Detected
1,1-Dichloroethene	1600	Not Detected	6400	Not Detected
Acetone	6400	Not Detected	15000	Not Detected
2-Propanol	6400	1600 J	16000	4000 J
Carbon Disulfide	1600	Not Detected	5000	Not Detected
3-Chloropropene	6400	Not Detected	20000	Not Detected
Methylene Chloride	1600	Not Detected	5600	Not Detected
Methyl tert-butyl ether	1600	Not Detected	5800	Not Detected
trans-1,2-Dichloroethene	1600	Not Detected	6400	Not Detected
Hexane	1600	910000	5700	3200000
1,1-Dichloroethane	1600	Not Detected	6500	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1600	Not Detected	4700	Not Detected
cis-1,2-Dichloroethene	1600	Not Detected	6400	Not Detected
Tetrahydrofuran	1600	Not Detected	4700	Not Detected
Chloroform	1600	Not Detected	7900	Not Detected
1,1,1-Trichloroethane	1600	Not Detected	8800	Not Detected
Cyclohexane	1600	300000	5500	1000000
Carbon Tetrachloride	1600	Not Detected	10000	Not Detected
2,2,4-Trimethylpentane	1600	660000	7500	3100000
Benzene	1600	9100	5100	29000
1,2-Dichloroethane	1600	Not Detected	6500	Not Detected
Heptane	1600	470000	6600	1900000
Trichloroethene	1600	Not Detected	8600	Not Detected
1,2-Dichloropropane	1600	Not Detected	7400	Not Detected
1,4-Dioxane	6400	Not Detected	23000	Not Detected
Bromodichloromethane	1600	Not Detected	11000	Not Detected
cis-1,3-Dichloropropene	1600	Not Detected	7300	Not Detected
4-Methyl-2-pentanone	1600	Not Detected	6600	Not Detected
Toluene	1600	Not Detected	6100	Not Detected
trans-1,3-Dichloropropene	1600	Not Detected	7300	Not Detected
1,1,2-Trichloroethane	1600	Not Detected	8800	Not Detected
Tetrachloroethene	1600	Not Detected	11000	Not Detected

Client Sample ID: VMP-6-31.5-090810

Lab ID#: 1009223A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091719	Date of Collection: 9/8/10 3:42:00 PM		
Dil. Factor:	322	Date of Analysis: 9/17/10 10:48 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	6400	Not Detected	26000	Not Detected
Dibromochloromethane	1600	Not Detected	14000	Not Detected
1,2-Dibromoethane (EDB)	1600	Not Detected	12000	Not Detected
Chlorobenzene	1600	Not Detected	7400	Not Detected
Ethyl Benzene	1600	38000	7000	160000
m,p-Xylene	1600	12000	7000	51000
o-Xylene	1600	Not Detected	7000	Not Detected
Styrene	1600	Not Detected	6800	Not Detected
Bromoform	1600	Not Detected	17000	Not Detected
Cumene	1600	4000	7900	19000
1,1,2,2-Tetrachloroethane	1600	Not Detected	11000	Not Detected
Propylbenzene	1600	8600	7900	42000
4-Ethyltoluene	1600	3200	7900	16000
1,3,5-Trimethylbenzene	1600	1100 J	7900	5300 J
1,2,4-Trimethylbenzene	1600	4400	7900	22000
1,3-Dichlorobenzene	1600	Not Detected	9700	Not Detected
1,4-Dichlorobenzene	1600	Not Detected	9700	Not Detected
alpha-Chlorotoluene	1600	Not Detected	8300	Not Detected
1,2-Dichlorobenzene	1600	Not Detected	9700	Not Detected
1,2,4-Trichlorobenzene	6400	Not Detected	48000	Not Detected
Hexachlorobutadiene	6400	Not Detected	69000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091625	Date of Collection:	9/7/10 11:03:00 AM	
Dil. Factor:	2.64	Date of Analysis:	9/16/10 08:35 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.48 J	6.5	2.4 J
Freon 114	1.3	Not Detected	9.2	Not Detected
Chloromethane	5.3	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	2.9	Not Detected
Bromomethane	1.3	0.62 J	5.1	2.4 J
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	0.18 J	7.4	1.0 J
Ethanol	5.3	7.8	9.9	15
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Acetone	5.3	9.9	12	24
2-Propanol	5.3	8.1	13	20
Carbon Disulfide	1.3	3.4	4.1	10
3-Chloropropene	5.3	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Hexane	1.3	4.3	4.6	15
1,1-Dichloroethane	1.3	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	1.4	3.9	4.0
cis-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.9	Not Detected
Chloroform	1.3	Not Detected	6.4	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Cyclohexane	1.3	2.7	4.5	9.2
Carbon Tetrachloride	1.3	Not Detected	8.3	Not Detected
2,2,4-Trimethylpentane	1.3	20	6.2	93
Benzene	1.3	32	4.2	100
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Heptane	1.3	1.7	5.4	7.1
Trichloroethene	1.3	Not Detected	7.1	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.1	Not Detected
1,4-Dioxane	5.3	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	8.8	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	1.3	0.38 J	5.4	1.6 J
Toluene	1.3	3.7	5.0	14
trans-1,3-Dichloropropene	1.3	Not Detected	6.0	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Tetrachloroethene	1.3	0.25 J	9.0	1.7 J

Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091625	Date of Collection: 9/7/10 11:03:00 AM		
Dil. Factor:	2.64	Date of Analysis: 9/16/10 08:35 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.3	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.1	Not Detected
Ethyl Benzene	1.3	2.1	5.7	9.0
m,p-Xylene	1.3	3.2	5.7	14
o-Xylene	1.3	1.5	5.7	6.5
Styrene	1.3	0.69 J	5.6	2.9 J
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	0.41 J	6.5	2.0 J
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.1	Not Detected
Propylbenzene	1.3	0.71 J	6.5	3.5 J
4-Ethyltoluene	1.3	1.4	6.5	7.2
1,3,5-Trimethylbenzene	1.3	0.48 J	6.5	2.3 J
1,2,4-Trimethylbenzene	1.3	1.4	6.5	7.0
1,3-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.8	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.9	Not Detected
1,2,4-Trichlorobenzene	5.3	Not Detected	39	Not Detected
Hexachlorobutadiene	5.3	Not Detected	56	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

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

Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091626	Date of Collection:	9/7/10 1:16:00 PM	
Dil. Factor:	2.58	Date of Analysis:	9/16/10 08:55 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.66 J	6.4	3.3 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	Not Detected	5.0	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	0.33 J	7.2	1.8 J
Ethanol	5.2	26 "J"	9.7	48 "J"
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	12	12	29
2-Propanol	5.2	13	13	33
Carbon Disulfide	1.3	1.1 J	4.0	3.4 J
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	7.6 4.3 0.0 ND	2.8 "U"	26 4.5 0.0 ND	26 "U"
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	1.2 J	4.5	4.3 J
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	1.6	3.8	4.6
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	1.4	3.8	4.2
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	0.60 J	4.4	2.0 J
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	2.4 "J"	6.0	11 "J"
Benzene	1.3	6.0 "J"	4.1	19 "J"
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	0.62 J	5.3	2.5 J
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	0.24 J	5.3	0.96 J
Toluene	1.3	2.6	4.9	9.8
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	0.10 J	8.8	0.70 J

Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091626	Date of Collection: 9/7/10 1:16:00 PM		
Dil. Factor:	2.58	Date of Analysis: 9/16/10 08:55 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.2	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	0.39 J	5.6	1.7 J
m,p-Xylene	1.3	0.85 J	5.6	3.7 J
o-Xylene	1.3	0.30 J	5.6	1.3 J
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	0.26 J	6.3	1.3 J
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	99	70-130

* "Use these results only. All other data was reported from the 6.45X dilution analysis."

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223A-12A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091518	Date of Collection: 9/8/10 11:17:00 AM		
Dil. Factor:	12.9	Date of Analysis: 9/15/10 06:08 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	64	Not Detected	320	Not Detected
Freon 114	64	Not Detected	450	Not Detected
Chloromethane	260	Not Detected	530	Not Detected
Vinyl Chloride	64	Not Detected	160	Not Detected
1,3-Butadiene	64	Not Detected	140	Not Detected
Bromomethane	64	Not Detected	250	Not Detected
Chloroethane	64	Not Detected	170	Not Detected
Freon 11	64	Not Detected	360	Not Detected
Ethanol	260	Not Detected	490	Not Detected
Freon 113	64	Not Detected	490	Not Detected
1,1-Dichloroethene	64	Not Detected	260	Not Detected
Acetone	260	Not Detected	610	Not Detected
2-Propanol	260	Not Detected	630	Not Detected
Carbon Disulfide	64	Not Detected	200	Not Detected
3-Chloropropene	260	Not Detected	810	Not Detected
Methylene Chloride	64	Not Detected	220	Not Detected
Methyl tert-butyl ether	64	Not Detected	230	Not Detected
trans-1,2-Dichloroethene	64	Not Detected	260	Not Detected
Hexane	64	27 J	230	94 J
1,1-Dichloroethane	64	Not Detected	260	Not Detected
2-Butanone (Methyl Ethyl Ketone)	64	Not Detected	190	Not Detected
cis-1,2-Dichloroethene	64	Not Detected	260	Not Detected
Tetrahydrofuran	64	Not Detected	190	Not Detected
Chloroform	64	Not Detected	310	Not Detected
1,1,1-Trichloroethane	64	Not Detected	350	Not Detected
Cyclohexane	64	Not Detected	220	Not Detected
Carbon Tetrachloride	64	Not Detected	400	Not Detected
2,2,4-Trimethylpentane	64	220	300	1000
Benzene	64	38000	210	120000
1,2-Dichloroethane	64	Not Detected	260	Not Detected
Heptane	64	Not Detected	260	Not Detected
Trichloroethene	64	Not Detected	350	Not Detected
1,2-Dichloropropane	64	Not Detected	300	Not Detected
1,4-Dioxane	260	Not Detected	930	Not Detected
Bromodichloromethane	64	Not Detected	430	Not Detected
cis-1,3-Dichloropropene	64	Not Detected	290	Not Detected
4-Methyl-2-pentanone	64	Not Detected	260	Not Detected
Toluene	64	Not Detected	240	Not Detected
trans-1,3-Dichloropropene	64	Not Detected	290	Not Detected
1,1,2-Trichloroethane	64	Not Detected	350	Not Detected
Tetrachloroethene	64	Not Detected	440	Not Detected

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223A-12A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091518	Date of Collection: 9/8/10 11:17:00 AM		
Dil. Factor:	12.9	Date of Analysis: 9/15/10 06:08 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	260	Not Detected	1000	Not Detected
Dibromochloromethane	64	Not Detected	550	Not Detected
1,2-Dibromoethane (EDB)	64	Not Detected	500	Not Detected
Chlorobenzene	64	Not Detected	300	Not Detected
Ethyl Benzene	64	Not Detected	280	Not Detected
m,p-Xylene	64	32 J	280	140 J
o-Xylene	64	25 J	280	110 J
Styrene	64	Not Detected	270	Not Detected
Bromoform	64	Not Detected	670	Not Detected
Cumene	64	Not Detected	320	Not Detected
1,1,2,2-Tetrachloroethane	64	Not Detected	440	Not Detected
Propylbenzene	64	Not Detected	320	Not Detected
4-Ethyltoluene	64	77	320	380
1,3,5-Trimethylbenzene	64	26 J	320	130 J
1,2,4-Trimethylbenzene	64	53 J	320	260 J
1,3-Dichlorobenzene	64	Not Detected	390	Not Detected
1,4-Dichlorobenzene	64	Not Detected	390	Not Detected
alpha-Chlorotoluene	64	Not Detected	330	Not Detected
1,2-Dichlorobenzene	64	Not Detected	390	Not Detected
1,2,4-Trichlorobenzene	260	Not Detected	1900	Not Detected
Hexachlorobutadiene	260	Not Detected	2800	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

* "Do not use this data. Use all other data."

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223A-12B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091520	Date of Collection: 9/8/10 11:17:00 AM
Dil. Factor:	6.45	Date of Analysis: 9/15/10 07:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	Not Detected	160	Not Detected
Freon 114	32	Not Detected	220	Not Detected
Chloromethane	130	Not Detected	270	Not Detected
Vinyl Chloride	32	Not Detected	82	Not Detected
1,3-Butadiene	32	Not Detected	71	Not Detected
Bromomethane	32	Not Detected	120	Not Detected
Chloroethane	32	Not Detected	85	Not Detected
Freon 11	32	Not Detected	180	Not Detected
Ethanol	130	Not Detected	240	Not Detected
Freon 113	32	Not Detected	250	Not Detected
1,1-Dichloroethene	32	Not Detected	130	Not Detected
Acetone	130	Not Detected	310	Not Detected
2-Propanol	130	Not Detected	320	Not Detected
Carbon Disulfide	32	Not Detected	100	Not Detected
3-Chloropropene	130	Not Detected	400	Not Detected
Methylene Chloride	32	Not Detected	110	Not Detected
Methyl tert-butyl ether	32	15 J	120	53 J
trans-1,2-Dichloroethene	32	Not Detected	130	Not Detected
Hexane	32	30 J	110	100 J
1,1-Dichloroethane	32	Not Detected	130	Not Detected
2-Butanone (Methyl Ethyl Ketone)	32	Not Detected	95	Not Detected
cis-1,2-Dichloroethene	32	Not Detected	130	Not Detected
Tetrahydrofuran	32	Not Detected	95	Not Detected
Chloroform	32	Not Detected	160	Not Detected
1,1,1-Trichloroethane	32	Not Detected	180	Not Detected
Cyclohexane	32	20 J	110	68 J
Carbon Tetrachloride	32	Not Detected	200	Not Detected
2,2,4-Trimethylpentane	32	240	150	1100
~~Benzene~~	~~32~~	~~40000 E~~	~~100~~	~~130000 E~~
1,2-Dichloroethane	32	Not Detected	130	Not Detected
Heptane	32	Not Detected	130	Not Detected
Trichloroethene	32	Not Detected	170	Not Detected
1,2-Dichloropropane	32	Not Detected	150	Not Detected
1,4-Dioxane	130	Not Detected	460	Not Detected
Bromodichloromethane	32	Not Detected	220	Not Detected
cis-1,3-Dichloropropene	32	Not Detected	150	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	150	Not Detected
1,1,2-Trichloroethane	32	Not Detected	180	Not Detected
Tetrachloroethene	32	Not Detected	220	Not Detected

Client Sample ID: VMP-11-29-090810

Lab ID#: I009223A-12B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091520	Date of Collection: 9/8/10 11:17:00 AM		
Dil. Factor:	6.45	Date of Analysis: 9/15/10 07:37 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	130	Not Detected	530	Not Detected
Dibromochloromethane	32	Not Detected	270	Not Detected
1,2-Dibromoethane (EDB)	32	Not Detected	250	Not Detected
Chlorobenzene	32	Not Detected	150	Not Detected
Ethyl Benzene	32	7.6 J	140	33 J
m,p-Xylene	32	23 J	140	100 J
o-Xylene	32	16 J	140	72 J
Styrene	32	Not Detected	140	Not Detected
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
Propylbenzene	32	12 J	160	59 J
4-Ethyltoluene	32	52	160	260
1,3,5-Trimethylbenzene	32	18 J	160	88 J
1,2,4-Trimethylbenzene	32	35	160	170
1,3-Dichlorobenzene	32	Not Detected	190	Not Detected
1,4-Dichlorobenzene	32	Not Detected	190	Not Detected
alpha-Chlorotoluene	32	Not Detected	170	Not Detected
1,2-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2,4-Trichlorobenzene	130	Not Detected	960	Not Detected
Hexachlorobutadiene	130	Not Detected	1400	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091627		Date of Collection: 9/7/10 2:45:00 PM	
Dil. Factor:	2.47		Date of Analysis: 9/16/10 09:15 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	0.50 J	6.1	2.5 J
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	4.9	Not Detected	10	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	1.2	Not Detected	4.8	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	0.22 J	6.9	1.2 J
Ethanol	4.9	5.2	9.3	9.9
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	4.9	15	12	36
2-Propanol	5.5 ~~4.9~~	0.0 ND 5.5 "U"	13.2 ~~12~~	0.0 ND 13 "U"
Carbon Disulfide	1.2	0.68 J	3.8	2.1 J
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	1.2	Not Detected	4.3	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	1.6	3.6	4.8
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	0.39 J	6.0	1.9 J
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Cyclohexane	1.2	0.35 J	4.2	1.2 J
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	8.8	5.8	41
Benzene	1.2	4.4	3.9	14
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	0.24 J	5.1	1.0 J
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	0.21 J	5.0	0.85 J
Toluene	1.2	0.80 J	4.6	3.0 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091627	Date of Collection:	9/7/10 2:45:00 PM
Dil. Factor:	2.47	Date of Analysis:	9/16/10 09:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	0.43 J	5.4	1.9 J
m,p-Xylene	1.2	0.34 J	5.4	1.5 J
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	0.18 J	6.1	0.87 J
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223A-14A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091519	Date of Collection: 9/8/10 1:22:00 PM		
Dil. Factor:	44.0	Date of Analysis: 9/15/10 06:36 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	220	Not Detected	1100	Not Detected
Freon 114	220	Not Detected	1500	Not Detected
Chloromethane	880	Not Detected	1800	Not Detected
Vinyl Chloride	220	Not Detected	560	Not Detected
1,3-Butadiene	220	Not Detected	490	Not Detected
Bromomethane	220	Not Detected	850	Not Detected
Chloroethane	220	Not Detected	580	Not Detected
Freon 11	220	Not Detected	1200	Not Detected
Ethanol	880	Not Detected	1600	Not Detected
Freon 113	220	Not Detected	1700	Not Detected
1,1-Dichloroethene	220	Not Detected	870	Not Detected
Acetone	880	Not Detected	2100	Not Detected
2-Propanol	880	Not Detected	2200	Not Detected
Carbon Disulfide	220	Not Detected	680	Not Detected
3-Chloropropene	880	Not Detected	2800	Not Detected
Methylene Chloride	220	Not Detected	760	Not Detected
Methyl tert-butyl ether	220	Not Detected	790	Not Detected
trans-1,2-Dichloroethene	220	Not Detected	870	Not Detected
Hexane	220	38000	780	130000
1,1-Dichloroethane	220	Not Detected	890	Not Detected
2-Butanone (Methyl Ethyl Ketone)	220	Not Detected	650	Not Detected
cis-1,2-Dichloroethene	220	Not Detected	870	Not Detected
Tetrahydrofuran	220	Not Detected	650	Not Detected
Chloroform	220	Not Detected	1100	Not Detected
1,1,1-Trichloroethane	220	Not Detected	1200	Not Detected
Cyclohexane	220	22000	760	76000
Carbon Tetrachloride	220	Not Detected	1400	Not Detected
2,2,4-Trimethylpentane	220	73000	1000	340000
Benzene	220	310	700	1000
1,2-Dichloroethane	220	Not Detected	890	Not Detected
Heptane	220	10000	900	43000
Trichloroethene	220	Not Detected	1200	Not Detected
1,2-Dichloropropane	220	Not Detected	1000	Not Detected
1,4-Dioxane	880	Not Detected	3200	Not Detected
Bromodichloromethane	220	Not Detected	1500	Not Detected
cis-1,3-Dichloropropene	220	Not Detected	1000	Not Detected
4-Methyl-2-pentanone	220	Not Detected	900	Not Detected
Toluene	220	Not Detected	830	Not Detected
trans-1,3-Dichloropropene	220	Not Detected	1000	Not Detected
1,1,2-Trichloroethane	220	Not Detected	1200	Not Detected
Tetrachloroethene	220	Not Detected	1500	Not Detected

Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223A-14A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091519	Date of Collection: 9/8/10 1:22:00 PM		
Dil. Factor:	44.0	Date of Analysis: 9/15/10 06:36 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	880	Not Detected	3600	Not Detected
Dibromochloromethane	220	Not Detected	1900	Not Detected
1,2-Dibromoethane (EDB)	220	Not Detected	1700	Not Detected
Chlorobenzene	220	Not Detected	1000	Not Detected
Ethyl Benzene	220	Not Detected	960	Not Detected
m,p-Xylene	220	110 J	960	470 J
o-Xylene	220	76 J	960	330 J
Styrene	220	Not Detected	940	Not Detected
Bromoform	220	Not Detected	2300	Not Detected
Cumene	220	Not Detected	1100	Not Detected
1,1,2,2-Tetrachloroethane	220	Not Detected	1500	Not Detected
Propylbenzene	220	Not Detected	1100	Not Detected
4-Ethyltoluene	220	210 J	1100	1000 J
1,3,5-Trimethylbenzene	220	70 J	1100	340 J
1,2,4-Trimethylbenzene	220	150 J	1100	740 J
1,3-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,4-Dichlorobenzene	220	Not Detected	1300	Not Detected
alpha-Chlorotoluene	220	Not Detected	1100	Not Detected
1,2-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,2,4-Trichlorobenzene	880	Not Detected	6500	Not Detected
Hexachlorobutadiene	880	Not Detected	9400	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091628	Date of Collection:	9/7/10 1:18:00 PM	
Dil. Factor:	2.76	Date of Analysis:	9/16/10 09:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.54 J	6.8	2.7 J
Freon 114	1.4	Not Detected	9.6	Not Detected
Chloromethane	5.5	Not Detected	11	Not Detected
Vinyl Chloride	1.4	Not Detected	3.5	Not Detected
1,3-Butadiene	1.4	Not Detected	3.0	Not Detected
Bromomethane	1.4	Not Detected	5.4	Not Detected
Chloroethane	1.4	Not Detected	3.6	Not Detected
Freon 11	1.4	0.23 J	7.8	1.3 J
Ethanol	5.5	6.5 "J"	10	12 "J"
Freon 113	1.4	Not Detected	10	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Acetone	5.5	15	13	36
2-Propanol	5.5	9.4	14	23
Carbon Disulfide	1.4	0.68 J	4.3	2.1 J
3-Chloropropene	5.5	Not Detected	17	Not Detected
Methylene Chloride	1.4	0.5 ND 10 "J"	4.8	0.5 ND 3.5 "J"
Methyl tert-butyl ether	1.4	Not Detected	5.0	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Hexane	1.4	1.7	4.9	6.1
1,1-Dichloroethane	1.4	Not Detected	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.4	2.0	4.1	5.8
cis-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Tetrahydrofuran	1.4	1.2 J	4.1	3.6 J
Chloroform	1.4	Not Detected	6.7	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Cyclohexane	1.4	1.0 J	4.8	3.5 J
Carbon Tetrachloride	1.4	Not Detected	8.7	Not Detected
2,2,4-Trimethylpentane	1.4	5.8 "J"	6.4	27 "J"
Benzene	1.4	12 "J"	4.4	39 "J"
1,2-Dichloroethane	1.4	Not Detected	5.6	Not Detected
Heptane	1.4	0.90 J	5.6	3.7 J
Trichloroethene	1.4	Not Detected	7.4	Not Detected
1,2-Dichloropropane	1.4	Not Detected	6.4	Not Detected
1,4-Dioxane	5.5	Not Detected	20	Not Detected
Bromodichloromethane	1.4	Not Detected	9.2	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected
4-Methyl-2-pentanone	1.4	0.24 J	5.6	0.98 J
Toluene	1.4	1.3 J	5.2	5.0 J
trans-1,3-Dichloropropene	1.4	Not Detected	6.3	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.5	Not Detected
Tetrachloroethene	1.4	Not Detected	9.4	Not Detected

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091628	Date of Collection: 9/7/10 1:18:00 PM		
Dil. Factor:	2.76	Date of Analysis: 9/16/10 09:36 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.5	Not Detected	23	Not Detected
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.4	Not Detected
Ethyl Benzene	1.4	0.47 J	6.0	2.0 J
m,p-Xylene	1.4	0.99 J	6.0	4.3 J
o-Xylene	1.4	0.34 J	6.0	1.5 J
Styrene	1.4	Not Detected	5.9	Not Detected
Bromoform	1.4	Not Detected	14	Not Detected
Cumene	1.4	Not Detected	6.8	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.5	Not Detected
Propylbenzene	1.4	Not Detected	6.8	Not Detected
4-Ethyltoluene	1.4	Not Detected	6.8	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	6.8	Not Detected
1,2,4-Trimethylbenzene	1.4	0.32 J	6.8	1.6 J
1,3-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.1	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.3	Not Detected
1,2,4-Trichlorobenzene	5.5	Not Detected	41	Not Detected
Hexachlorobutadiene	5.5	Not Detected	59	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: VMP-12-11.5-090310

Lab ID#: 1009223A-16A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091715	Date of Collection: 9/3/10 1:34:00 PM		
Dil. Factor:	345	Date of Analysis: 9/17/10 07:06 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1700	Not Detected	8500	Not Detected
Freon 114	1700	Not Detected	12000	Not Detected
Chloromethane	6900	Not Detected	14000	Not Detected
Vinyl Chloride	1700	Not Detected	4400	Not Detected
1,3-Butadiene	1700	Not Detected	3800	Not Detected
Bromomethane	1700	Not Detected	6700	Not Detected
Chloroethane	1700	Not Detected	4600	Not Detected
Freon 11	1700	Not Detected	9700	Not Detected
Ethanol	6900	Not Detected	13000	Not Detected
Freon 113	1700	Not Detected	13000	Not Detected
1,1-Dichloroethene	1700	Not Detected	6800	Not Detected
Acetone	6900	Not Detected	16000	Not Detected
2-Propanol	6900	990 J	17000	2400 J
Carbon Disulfide	1700	Not Detected	5400	Not Detected
3-Chloropropene	6900	Not Detected	22000	Not Detected
Methylene Chloride	1700	Not Detected	6000	Not Detected
Methyl tert-butyl ether	1700	Not Detected	6200	Not Detected
trans-1,2-Dichloroethene	1700	Not Detected	6800	Not Detected
Hexane	1700	12000	6100	41000
1,1-Dichloroethane	1700	Not Detected	7000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1700	Not Detected	5100	Not Detected
cis-1,2-Dichloroethene	1700	Not Detected	6800	Not Detected
Tetrahydrofuran	1700	Not Detected	5100	Not Detected
Chloroform	1700	Not Detected	8400	Not Detected
1,1,1-Trichloroethane	1700	Not Detected	9400	Not Detected
Cyclohexane	1700	170000	5900	580000
Carbon Tetrachloride	1700	Not Detected	11000	Not Detected
2,2,4-Trimethylpentane	1700	370000	8000	1700000
Benzene	1700	1300000	5500	4100000
1,2-Dichloroethane	1700	Not Detected	7000	Not Detected
Heptane	1700	1100 J	7100	4500 J
Trichloroethene	1700	Not Detected	9300	Not Detected
1,2-Dichloropropane	1700	Not Detected	8000	Not Detected
1,4-Dioxane	6900	Not Detected	25000	Not Detected
Bromodichloromethane	1700	Not Detected	12000	Not Detected
cis-1,3-Dichloropropene	1700	Not Detected	7800	Not Detected
4-Methyl-2-pentanone	1700	Not Detected	7100	Not Detected
Toluene	1700	300 J	6500	1100 J
trans-1,3-Dichloropropene	1700	Not Detected	7800	Not Detected
1,1,2-Trichloroethane	1700	Not Detected	9400	Not Detected
Tetrachloroethene	1700	Not Detected	12000	Not Detected

Client Sample ID: VMP-12-11.5-090310

Lab ID#: 1009223A-16A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091715	Date of Collection: 9/3/10 1:34:00 PM		
Dil. Factor:	345	Date of Analysis: 9/17/10 07:06 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	6900	Not Detected	28000	Not Detected
Dibromochloromethane	1700	Not Detected	15000	Not Detected
1,2-Dibromoethane (EDB)	1700	Not Detected	13000	Not Detected
Chlorobenzene	1700	Not Detected	7900	Not Detected
Ethyl Benzene	1700	1200 J	7500	5400 J
m,p-Xylene	1700	Not Detected	7500	Not Detected
o-Xylene	1700	Not Detected	7500	Not Detected
Styrene	1700	Not Detected	7300	Not Detected
Bromoform	1700	Not Detected	18000	Not Detected
Cumene	1700	1800	8500	9100
1,1,2,2-Tetrachloroethane	1700	Not Detected	12000	Not Detected
Propylbenzene	1700	2300	8500	11000
4-Ethyltoluene	1700	Not Detected	8500	Not Detected
1,3,5-Trimethylbenzene	1700	Not Detected	8500	Not Detected
1,2,4-Trimethylbenzene	1700	Not Detected	8500	Not Detected
1,3-Dichlorobenzene	1700	Not Detected	10000	Not Detected
1,4-Dichlorobenzene	1700	Not Detected	10000	Not Detected
alpha-Chlorotoluene	1700	Not Detected	8900	Not Detected
1,2-Dichlorobenzene	1700	Not Detected	10000	Not Detected
1,2,4-Trichlorobenzene	6900	Not Detected	51000	Not Detected
Hexachlorobutadiene	6900	Not Detected	74000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223A-17A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091717	Date of Collection: 9/3/10 11:56:00 AM		
Dil. Factor:	269	Date of Analysis: 9/17/10 09:28 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1300	Not Detected	6600	Not Detected
Freon 114	1300	Not Detected	9400	Not Detected
Chloromethane	5400	Not Detected	11000	Not Detected
Vinyl Chloride	1300	Not Detected	3400	Not Detected
1,3-Butadiene	1300	Not Detected	3000	Not Detected
Bromomethane	1300	Not Detected	5200	Not Detected
Chloroethane	1300	Not Detected	3500	Not Detected
Freon 11	1300	Not Detected	7600	Not Detected
Ethanol	5400	Not Detected	10000	Not Detected
Freon 113	1300	Not Detected	10000	Not Detected
1,1-Dichloroethene	1300	Not Detected	5300	Not Detected
Acetone	5400	Not Detected	13000	Not Detected
2-Propanol	5400	1500 J	13000	3600 J
Carbon Disulfide	1300	Not Detected	4200	Not Detected
3-Chloropropene	5400	Not Detected	17000	Not Detected
Methylene Chloride	1300	Not Detected	4700	Not Detected
Methyl tert-butyl ether	1300	Not Detected	4800	Not Detected
trans-1,2-Dichloroethene	1300	Not Detected	5300	Not Detected
Hexane	1300	3000	4700	11000
1,1-Dichloroethane	1300	Not Detected	5400	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1300	Not Detected	4000	Not Detected
cis-1,2-Dichloroethene	1300	Not Detected	5300	Not Detected
Tetrahydrofuran	1300	Not Detected	4000	Not Detected
Chloroform	1300	Not Detected	6600	Not Detected
1,1,1-Trichloroethane	1300	Not Detected	7300	Not Detected
Cyclohexane	1300	120000	4600	410000
Carbon Tetrachloride	1300	Not Detected	8500	Not Detected
2,2,4-Trimethylpentane	1300	370000	6300	1700000
Benzene	1300	72000	4300	230000
1,2-Dichloroethane	1300	Not Detected	5400	Not Detected
Heptane	1300	Not Detected	5500	Not Detected
Trichloroethene	1300	Not Detected	7200	Not Detected
1,2-Dichloropropane	1300	Not Detected	6200	Not Detected
1,4-Dioxane	5400	Not Detected	19000	Not Detected
Bromodichloromethane	1300	Not Detected	9000	Not Detected
cis-1,3-Dichloropropene	1300	Not Detected	6100	Not Detected
4-Methyl-2-pentanone	1300	Not Detected	5500	Not Detected
Toluene	1300	270 J	5100	1000 J
trans-1,3-Dichloropropene	1300	Not Detected	6100	Not Detected
1,1,2-Trichloroethane	1300	Not Detected	7300	Not Detected
Tetrachloroethene	1300	Not Detected	9100	Not Detected

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223A-17A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091717	Date of Collection: 9/3/10 11:56:00 AM		
Dil. Factor:	269	Date of Analysis: 9/17/10 09:28 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5400	Not Detected	22000	Not Detected
Dibromochloromethane	1300	Not Detected	11000	Not Detected
1,2-Dibromoethane (EDB)	1300	Not Detected	10000	Not Detected
Chlorobenzene	1300	Not Detected	6200	Not Detected
Ethyl Benzene	1300	Not Detected	5800	Not Detected
m,p-Xylene	1300	Not Detected	5800	Not Detected
o-Xylene	1300	Not Detected	5800	Not Detected
Styrene	1300	Not Detected	5700	Not Detected
Bromoform	1300	Not Detected	14000	Not Detected
Cumene	1300	590 J	6600	2900 J
1,1,2,2-Tetrachloroethane	1300	Not Detected	9200	Not Detected
Propylbenzene	1300	600 J	6600	3000 J
4-Ethyltoluene	1300	Not Detected	6600	Not Detected
1,3,5-Trimethylbenzene	1300	Not Detected	6600	Not Detected
1,2,4-Trimethylbenzene	1300	Not Detected	6600	Not Detected
1,3-Dichlorobenzene	1300	Not Detected	8100	Not Detected
1,4-Dichlorobenzene	1300	Not Detected	8100	Not Detected
alpha-Chlorotoluene	1300	Not Detected	7000	Not Detected
1,2-Dichlorobenzene	1300	Not Detected	8100	Not Detected
1,2,4-Trichlorobenzene	5400	Not Detected	40000	Not Detected
Hexachlorobutadiene	5400	Not Detected	57000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: VMP-16-19-090210

Lab ID#: 1009223A-18A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091626	Date of Collection: 9/2/10 2:47:00 PM		
Dil. Factor:	494	Date of Analysis: 9/16/10 11:46 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2500	Not Detected	12000	Not Detected
Freon 114	2500	Not Detected	17000	Not Detected
Chloromethane	9900	Not Detected	20000	Not Detected
Vinyl Chloride	2500	Not Detected	6300	Not Detected
1,3-Butadiene	2500	Not Detected	5500	Not Detected
Bromomethane	2500	Not Detected	9600	Not Detected
Chloroethane	2500	Not Detected	6500	Not Detected
Freon 11	2500	Not Detected	14000	Not Detected
Ethanol	9900	Not Detected	19000	Not Detected
Freon 113	2500	Not Detected	19000	Not Detected
1,1-Dichloroethene	2500	Not Detected	9800	Not Detected
Acetone	9900	Not Detected	23000	Not Detected
2-Propanol	9900	Not Detected	24000	Not Detected
Carbon Disulfide	2500	Not Detected	7700	Not Detected
3-Chloropropene	9900	Not Detected	31000	Not Detected
Methylene Chloride	2500	Not Detected	8600	Not Detected
Methyl tert-butyl ether	2500	860 J	8900	3100 J
trans-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Hexane	2500	2100 J	8700	7500 J
1,1-Dichloroethane	2500	Not Detected	10000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2500	Not Detected	7300	Not Detected
cis-1,2-Dichloroethene	2500	Not Detected	9800	Not Detected
Tetrahydrofuran	2500	Not Detected	7300	Not Detected
Chloroform	2500	Not Detected	12000	Not Detected
1,1,1-Trichloroethane	2500	Not Detected	13000	Not Detected
Cyclohexane	2500	54000	8500	190000
Carbon Tetrachloride	2500	Not Detected	16000	Not Detected
2,2,4-Trimethylpentane	2500	2200000	12000	10000000
Benzene	2500	8600	7900	27000
1,2-Dichloroethane	2500	Not Detected	10000	Not Detected
Heptane	2500	3400	10000	14000
Trichloroethene	2500	Not Detected	13000	Not Detected
1,2-Dichloropropane	2500	Not Detected	11000	Not Detected
1,4-Dioxane	9900	Not Detected	36000	Not Detected
Bromodichloromethane	2500	Not Detected	16000	Not Detected
cis-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
4-Methyl-2-pentanone	2500	Not Detected	10000	Not Detected
Toluene	2500	Not Detected	9300	Not Detected
trans-1,3-Dichloropropene	2500	Not Detected	11000	Not Detected
1,1,2-Trichloroethane	2500	Not Detected	13000	Not Detected
Tetrachloroethene	2500	Not Detected	17000	Not Detected

Client Sample ID: VMP-16-19-090210

Lab ID#: 1009223A-18A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091626	Date of Collection:	9/2/10 2:47:00 PM	
Dil. Factor:	494	Date of Analysis:	9/16/10 11:46 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	9900	Not Detected	40000	Not Detected
Dibromochloromethane	2500	Not Detected	21000	Not Detected
1,2-Dibromoethane (EDB)	2500	Not Detected	19000	Not Detected
Chlorobenzene	2500	Not Detected	11000	Not Detected
Ethyl Benzene	2500	5200	11000	23000
m,p-Xylene	2500	1900 J	11000	8200 J
o-Xylene	2500	Not Detected	11000	Not Detected
Styrene	2500	Not Detected	10000	Not Detected
Bromoform	2500	Not Detected	26000	Not Detected
Cumene	2500	4900	12000	24000
1,1,2,2-Tetrachloroethane	2500	Not Detected	17000	Not Detected
Propylbenzene	2500	7200	12000	35000
4-Ethyltoluene	2500	650 J	12000	3200 J
1,3,5-Trimethylbenzene	2500	Not Detected	12000	Not Detected
1,2,4-Trimethylbenzene	2500	780 J	12000	3800 J
1,3-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,4-Dichlorobenzene	2500	Not Detected	15000	Not Detected
alpha-Chlorotoluene	2500	Not Detected	13000	Not Detected
1,2-Dichlorobenzene	2500	Not Detected	15000	Not Detected
1,2,4-Trichlorobenzene	9900	Not Detected	73000	Not Detected
Hexachlorobutadiene	9900	Not Detected	100000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

* Use these results only. All other data was reported from the 440 X dilution analysis.

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091622	Date of Collection: 9/3/10 2:35:00 PM		
Dil. Factor:	880	Date of Analysis: 9/16/10 07:40 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4400	Not Detected	22000	Not Detected
Freon 114	4400	Not Detected	31000	Not Detected
Chloromethane	18000	Not Detected	36000	Not Detected
Vinyl Chloride	4400	Not Detected	11000	Not Detected
1,3-Butadiene	4400	Not Detected	9700	Not Detected
Bromomethane	4400	Not Detected	17000	Not Detected
Chloroethane	4400	Not Detected	12000	Not Detected
Freon 11	4400	Not Detected	25000	Not Detected
Ethanol	18000	Not Detected	33000	Not Detected
Freon 113	4400	Not Detected	34000	Not Detected
1,1-Dichloroethene	4400	Not Detected	17000	Not Detected
Acetone	18000	Not Detected	42000	Not Detected
2-Propanol	18000	Not Detected	43000	Not Detected
Carbon Disulfide	4400	Not Detected	14000	Not Detected
3-Chloropropene	18000	Not Detected	55000	Not Detected
Methylene Chloride	4400	Not Detected	15000	Not Detected
Methyl tert-butyl ether	4400	Not Detected	16000	Not Detected
trans-1,2-Dichloroethene	4400	Not Detected	17000	Not Detected
Hexane	4400	250000	16000	890000
1,1-Dichloroethane	4400	Not Detected	18000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4400	Not Detected	13000	Not Detected
cis-1,2-Dichloroethene	4400	Not Detected	17000	Not Detected
Tetrahydrofuran	4400	Not Detected	13000	Not Detected
Chloroform	4400	Not Detected	21000	Not Detected
1,1,1-Trichloroethane	4400	Not Detected	24000	Not Detected
Cyclohexane	4400	200000	15000	680000
Carbon Tetrachloride	4400	Not Detected	28000	Not Detected
2,2,4-Trimethylpentane	4400	350000	20000	1600000
Benzene	4400	4400000	14000	14000000
1,2-Dichloroethane	4400	Not Detected	18000	Not Detected
Heptane	4400	27000	18000	110000
Trichloroethene	4400	Not Detected	24000	Not Detected
1,2-Dichloropropane	4400	Not Detected	20000	Not Detected
1,4-Dioxane	18000	Not Detected	63000	Not Detected
Bromodichloromethane	4400	Not Detected	29000	Not Detected
cis-1,3-Dichloropropene	4400	Not Detected	20000	Not Detected
4-Methyl-2-pentanone	4400	Not Detected	18000	Not Detected
Toluene	4400	790 J	16000	3000 J
trans-1,3-Dichloropropene	4400	Not Detected	20000	Not Detected
1,1,2-Trichloroethane	4400	Not Detected	24000	Not Detected
Tetrachloroethene	4400	Not Detected	30000	Not Detected

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091622	Date of Collection: 9/3/10 2:35:00 PM		
Dil. Factor:	880	Date of Analysis: 9/16/10 07:40 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	18000	Not Detected	72000	Not Detected
Dibromochloromethane	4400	Not Detected	37000	Not Detected
1,2-Dibromoethane (EDB)	4400	Not Detected	34000	Not Detected
Chlorobenzene	4400	Not Detected	20000	Not Detected
Ethyl Benzene	4400	3400 J	19000	15000 J
m,p-Xylene	4400	Not Detected	19000	Not Detected
o-Xylene	4400	Not Detected	19000	Not Detected
Styrene	4400	Not Detected	19000	Not Detected
Bromoform	4400	Not Detected	45000	Not Detected
Cumene	4400	4500	22000	22000
1,1,2,2-Tetrachloroethane	4400	Not Detected	30000	Not Detected
Propylbenzene	4400	5500	22000	27000
4-Ethyltoluene	4400	Not Detected	22000	Not Detected
1,3,5-Trimethylbenzene	4400	Not Detected	22000	Not Detected
1,2,4-Trimethylbenzene	4400	Not Detected	22000	Not Detected
1,3-Dichlorobenzene	4400	Not Detected	26000	Not Detected
1,4-Dichlorobenzene	4400	Not Detected	26000	Not Detected
alpha-Chlorotoluene	4400	Not Detected	23000	Not Detected
1,2-Dichlorobenzene	4400	Not Detected	26000	Not Detected
1,2,4-Trichlorobenzene	18000	Not Detected	130000	Not Detected
Hexachlorobutadiene	18000	Not Detected	190000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	104	70-130

* "Do not use this data. Use all other data."

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091624	Date of Collection: 9/3/10 2:35:00 PM		
Dil. Factor:	440	Date of Analysis: 9/16/10 09:33 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2200	Not Detected	11000	Not Detected
Freon 114	2200	Not Detected	15000	Not Detected
Chloromethane	8800	Not Detected	18000	Not Detected
Vinyl Chloride	2200	Not Detected	5600	Not Detected
1,3-Butadiene	2200	Not Detected	4900	Not Detected
Bromomethane	2200	Not Detected	8500	Not Detected
Chloroethane	2200	Not Detected	5800	Not Detected
Freon 11	2200	Not Detected	12000	Not Detected
Ethanol	8800	Not Detected	16000	Not Detected
Freon 113	2200	Not Detected	17000	Not Detected
1,1-Dichloroethene	2200	Not Detected	8700	Not Detected
Acetone	8800	Not Detected	21000	Not Detected
2-Propanol	8800	Not Detected	22000	Not Detected
Carbon Disulfide	2200	Not Detected	6800	Not Detected
3-Chloropropene	8800	Not Detected	28000	Not Detected
Methylene Chloride	2200	Not Detected	7600	Not Detected
Methyl tert-butyl ether	2200	Not Detected	7900	Not Detected
trans-1,2-Dichloroethene	2200	Not Detected	8700	Not Detected
Hexane	2200	240000	7800	860000
1,1-Dichloroethane	2200	Not Detected	8900	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2200	Not Detected	6500	Not Detected
cis-1,2-Dichloroethene	2200	Not Detected	8700	Not Detected
Tetrahydrofuran	2200	Not Detected	6500	Not Detected
Chloroform	2200	Not Detected	11000	Not Detected
1,1,1-Trichloroethane	2200	Not Detected	12000	Not Detected
Cyclohexane	2200	190000	7600	650000
Carbon Tetrachloride	2200	Not Detected	14000	Not Detected
2,2,4-Trimethylpentane	2200	280000	10000	1300000
Benzene	2200	3000000 E	7000	12000000 E
1,2-Dichloroethane	2200	Not Detected	8900	Not Detected
Heptane	2200	25000	9000	100000
Trichloroethene	2200	Not Detected	12000	Not Detected
1,2-Dichloropropane	2200	Not Detected	10000	Not Detected
1,4-Dioxane	8800	Not Detected	32000	Not Detected
Bromodichloromethane	2200	Not Detected	15000	Not Detected
cis-1,3-Dichloropropene	2200	Not Detected	10000	Not Detected
4-Methyl-2-pentanone	2200	Not Detected	9000	Not Detected
Toluene	2200	780 J	8300	2900 J
trans-1,3-Dichloropropene	2200	Not Detected	10000	Not Detected
1,1,2-Trichloroethane	2200	Not Detected	12000	Not Detected
Tetrachloroethene	2200	Not Detected	15000	Not Detected

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223A-19B

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091624	Date of Collection: 9/3/10 2:35:00 PM		
Dil. Factor:	440	Date of Analysis: 9/16/10 09:33 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	8800	Not Detected	36000	Not Detected
Dibromochloromethane	2200	Not Detected	19000	Not Detected
1,2-Dibromoethane (EDB)	2200	Not Detected	17000	Not Detected
Chlorobenzene	2200	Not Detected	10000	Not Detected
Ethyl Benzene	2200	3100	9600	14000
m,p-Xylene	2200	Not Detected	9600	Not Detected
o-Xylene	2200	Not Detected	9600	Not Detected
Styrene	2200	Not Detected	9400	Not Detected
Bromoform	2200	Not Detected	23000	Not Detected
Cumene	2200	4000	11000	20000
1,1,2,2-Tetrachloroethane	2200	Not Detected	15000	Not Detected
Propylbenzene	2200	5300	11000	26000
4-Ethyltoluene	2200	Not Detected	11000	Not Detected
1,3,5-Trimethylbenzene	2200	Not Detected	11000	Not Detected
1,2,4-Trimethylbenzene	2200	Not Detected	11000	Not Detected
1,3-Dichlorobenzene	2200	Not Detected	13000	Not Detected
1,4-Dichlorobenzene	2200	Not Detected	13000	Not Detected
alpha-Chlorotoluene	2200	Not Detected	11000	Not Detected
1,2-Dichlorobenzene	2200	Not Detected	13000	Not Detected
1,2,4-Trichlorobenzene	8800	Not Detected	65000	Not Detected
Hexachlorobutadiene	8800	Not Detected	94000	Not Detected

E = Exceeds instrument calibration range.

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223A-20A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091522	Date of Collection: 9/8/10 2:36:00 PM		
Dil. Factor:	47.6	Date of Analysis: 9/15/10 09:14 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	240	Not Detected	1200	Not Detected
Freon 114	240	Not Detected	1700	Not Detected
Chloromethane	950	Not Detected	2000	Not Detected
Vinyl Chloride	240	Not Detected	610	Not Detected
1,3-Butadiene	240	Not Detected	530	Not Detected
Bromomethane	240	Not Detected	920	Not Detected
Chloroethane	240	Not Detected	630	Not Detected
Freon 11	240	Not Detected	1300	Not Detected
Ethanol	950	Not Detected	1800	Not Detected
Freon 113	240	Not Detected	1800	Not Detected
1,1-Dichloroethene	240	Not Detected	940	Not Detected
Acetone	950	Not Detected	2300	Not Detected
2-Propanol	950	Not Detected	2300	Not Detected
Carbon Disulfide	240	Not Detected	740	Not Detected
3-Chloropropene	950	Not Detected	3000	Not Detected
Methylene Chloride	240	Not Detected	830	Not Detected
Methyl tert-butyl ether	240	Not Detected	860	Not Detected
trans-1,2-Dichloroethene	240	Not Detected	940	Not Detected
Hexane	240	110000 "J"	840	400000 "J"
1,1-Dichloroethane	240	Not Detected	960	Not Detected
2-Butanone (Methyl Ethyl Ketone)	240	Not Detected	700	Not Detected
cis-1,2-Dichloroethene	240	Not Detected	940	Not Detected
Tetrahydrofuran	240	Not Detected	700	Not Detected
Chloroform	240	Not Detected	1200	Not Detected
1,1,1-Trichloroethane	240	Not Detected	1300	Not Detected
Cyclohexane	240	70000 "J"	820	240000 "J"
Carbon Tetrachloride	240	Not Detected	1500	Not Detected
2,2,4-Trimethylpentane	240	200000 "J"	1100	930000 "J"
Benzene	240	910 "J"	760	2900 "J"
1,2-Dichloroethane	240	Not Detected	960	Not Detected
Heptane	240	39000 "J"	980	160000 "J"
Trichloroethene	240	Not Detected	1300	Not Detected
1,2-Dichloropropane	240	Not Detected	1100	Not Detected
1,4-Dioxane	950	Not Detected	3400	Not Detected
Bromodichloromethane	240	Not Detected	1600	Not Detected
cis-1,3-Dichloropropene	240	Not Detected	1100	Not Detected
4-Methyl-2-pentanone	240	Not Detected	970	Not Detected
Toluene	240	Not Detected	900	Not Detected
trans-1,3-Dichloropropene	240	Not Detected	1100	Not Detected
1,1,2-Trichloroethane	240	Not Detected	1300	Not Detected
Tetrachloroethene	240	Not Detected	1600	Not Detected

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223A-20A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091522	Date of Collection:	9/8/10 2:36:00 PM	
Dil. Factor:	47.6	Date of Analysis:	9/15/10 09:14 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	950	Not Detected	3900	Not Detected
Dibromochloromethane	240	Not Detected	2000	Not Detected
1,2-Dibromoethane (EDB)	240	Not Detected	1800	Not Detected
Chlorobenzene	240	Not Detected	1100	Not Detected
Ethyl Benzene	240	160 J	1000	680 J
m,p-Xylene	240	190 J	1000	830 J
o-Xylene	240	73 J	1000	320 J
Styrene	240	Not Detected	1000	Not Detected
Bromoform	240	Not Detected	2500	Not Detected
Cumene	240	110 J	1200	540 J
1,1,2,2-Tetrachloroethane	240	Not Detected	1600	Not Detected
Propylbenzene	240	150 J	1200	730 J
4-Ethyltoluene	240	180 J	1200	900 J
1,3,5-Trimethylbenzene	240	58 J	1200	290 J
1,2,4-Trimethylbenzene	240	130 J	1200	620 J
1,3-Dichlorobenzene	240	Not Detected	1400	Not Detected
1,4-Dichlorobenzene	240	Not Detected	1400	Not Detected
alpha-Chlorotoluene	240	Not Detected	1200	Not Detected
1,2-Dichlorobenzene	240	Not Detected	1400	Not Detected
1,2,4-Trichlorobenzene	950	Not Detected	7100	Not Detected
Hexachlorobutadiene	950	Not Detected	10000	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	142 Q	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091506a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:57 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091506a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:57 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	3.8 J	150	28 J
Hexachlorobutadiene	20	4.4 J	210	47 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091606a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/16/10 08:19 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	0.35 J	1.9	1.4 J
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	0.33 J	1.6	1.0 J
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	0.060 J	2.4	0.30 J
1,1,1-Trichloroethane	0.50	0.054 J	2.7	0.29 J
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	0.078 J	2.3	0.36 J
Benzene	0.50	0.075 J	1.6	0.24 J
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	0.071 J	2.0	0.29 J
Trichloroethene	0.50	0.094 J	2.7	0.50 J
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	0.056 J	3.4	0.38 J
cis-1,3-Dichloropropene	0.50	0.076 J	2.3	0.35 J
4-Methyl-2-pentanone	0.50	0.12 J	2.0	0.48 J
Toluene	0.50	0.10 J	1.9	0.40 J
trans-1,3-Dichloropropene	0.50	0.092 J	2.3	0.42 J
1,1,2-Trichloroethane	0.50	0.069 J	2.7	0.38 J
Tetrachloroethene	0.50	0.10 J	3.4	0.71 J

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091606a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 08:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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	0.094 J	3.8	0.72 J
Chlorobenzene	0.50	0.12 J	2.3	0.54 J
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	0.11 J	2.2	0.48 J
o-Xylene	0.50	0.14 J	2.2	0.60 J
Styrene	0.50	0.10 J	2.1	0.43 J
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	0.17 J	2.4	0.85 J
1,1,2,2-Tetrachloroethane	0.50	0.14 J	3.4	0.93 J
Propylbenzene	0.50	0.16 J	2.4	0.79 J
4-Ethyltoluene	0.50	0.15 J	2.4	0.73 J
1,3,5-Trimethylbenzene	0.50	0.25 J	2.4	1.2 J
1,2,4-Trimethylbenzene	0.50	0.18 J	2.4	0.91 J
1,3-Dichlorobenzene	0.50	0.22 J	3.0	1.4 J
1,4-Dichlorobenzene	0.50	0.24 J	3.0	1.4 J
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	0.24 J	3.0	1.4 J
1,2,4-Trichlorobenzene	2.0	0.71 J	15	5.3 J
Hexachlorobutadiene	2.0	0.54 J	21	5.8 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091611a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/16/10 12:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	1.2 J	49	3.0 J
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	1.9 J	17	6.6 J
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091611a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/16/10 12:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091705c	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/17/10 10:15 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009223A-21D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091705c	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/17/10 10:15 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	1.1 J	26	5.6 J
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	1.6 J	150	12 J
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: CCV

Lab ID#: 1009223A-22A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 07:37 AM

Compound	%Recovery
Freon 12	107
Freon 114	108
Chloromethane	127
Vinyl Chloride	122
1,3-Butadiene	121
Bromomethane	113
Chloroethane	116
Freon 11	112
Ethanol	110
Freon 113	108
1,1-Dichloroethene	118
Acetone	114
2-Propanol	108
Carbon Disulfide	118
3-Chloropropene	116
Methylene Chloride	124
Methyl tert-butyl ether	111
trans-1,2-Dichloroethene	112
Hexane	119
1,1-Dichloroethane	119
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	119
Tetrahydrofuran	121
Chloroform	115
1,1,1-Trichloroethane	111
Cyclohexane	112
Carbon Tetrachloride	112
2,2,4-Trimethylpentane	120
Benzene	113
1,2-Dichloroethane	121
Heptane	116
Trichloroethene	109
1,2-Dichloropropane	115
1,4-Dioxane	107
Bromodichloromethane	112
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	110
Toluene	109
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	108
Tetrachloroethene	107

Client Sample ID: CCV

Lab ID#: 1009223A-22A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 07:37 AM

Compound	%Recovery
2-Hexanone	108
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	108
Chlorobenzene	109
Ethyl Benzene	107
m,p-Xylene	107
o-Xylene	106
Styrene	113
Bromoform	111
Cumene	112
1,1,2,2-Tetrachloroethane	112
Propylbenzene	113
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	111
alpha-Chlorotoluene	127
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	112
Hexachlorobutadiene	121

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: CCV

Lab ID#: 1009223A-22B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 10:26 PM

Compound	%Recovery
Freon 12	106
Freon 114	102
Chloromethane	101
Vinyl Chloride	102
1,3-Butadiene	101
Bromomethane	107
Chloroethane	102
Freon 11	106
Ethanol	130
Freon 113	100
1,1-Dichloroethene	100
Acetone	86
2-Propanol	96
Carbon Disulfide	90
3-Chloropropene	101
Methylene Chloride	102
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	102
Hexane	102
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	100
Tetrahydrofuran	104
Chloroform	104
1,1,1-Trichloroethane	106
Cyclohexane	102
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	102
Benzene	103
1,2-Dichloroethane	110
Heptane	106
Trichloroethene	103
1,2-Dichloropropane	105
1,4-Dioxane	104
Bromodichloromethane	107
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	110
Toluene	103
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	106
Tetrachloroethene	103

Client Sample ID: CCV

Lab ID#: 1009223A-22B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 10:26 PM

Compound	%Recovery
2-Hexanone	110
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	105
Chlorobenzene	102
Ethyl Benzene	104
m,p-Xylene	104
o-Xylene	103
Styrene	104
Bromoform	104
Cumene	104
1,1,2,2-Tetrachloroethane	101
Propylbenzene	103
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 1009223A-22C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 07:32 AM

Compound	%Recovery
Freon 12	104
Freon 114	110
Chloromethane	102
Vinyl Chloride	111
1,3-Butadiene	105
Bromomethane	111
Chloroethane	110
Freon 11	105
Ethanol	106
Freon 113	113
1,1-Dichloroethene	104
Acetone	107
2-Propanol	99
Carbon Disulfide	112
3-Chloropropene	108
Methylene Chloride	95
Methyl tert-butyl ether	107
trans-1,2-Dichloroethene	102
Hexane	92
1,1-Dichloroethane	90
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	97
Tetrahydrofuran	93
Chloroform	98
1,1,1-Trichloroethane	95
Cyclohexane	94
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	101
Benzene	106
1,2-Dichloroethane	102
Heptane	105
Trichloroethene	90
1,2-Dichloropropane	96
1,4-Dioxane	96
Bromodichloromethane	97
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	98
Toluene	99
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	90
Tetrachloroethene	97

Client Sample ID: CCV

Lab ID#: 1009223A-22C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 07:32 AM

Compound	%Recovery
2-Hexanone	91
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	91
Chlorobenzene	101
Ethyl Benzene	100
m,p-Xylene	96
o-Xylene	101
Styrene	98
Bromoforn	98
Cumene	102
1,1,2,2-Tetrachloroethane	97
Propylbenzene	94
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1009223A-22D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 07:58 AM

Compound	%Recovery
Freon 12	98
Freon 114	102
Chloromethane	92
Vinyl Chloride	98
1,3-Butadiene	97
Bromomethane	98
Chloroethane	94
Freon 11	99
Ethanol	94
Freon 113	104
1,1-Dichloroethene	97
Acetone	98
2-Propanol	92
Carbon Disulfide	97
3-Chloropropene	91
Methylene Chloride	93
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	101
Hexane	98
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	98
Tetrahydrofuran	91
Chloroform	97
1,1,1-Trichloroethane	99
Cyclohexane	96
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	102
Benzene	95
1,2-Dichloroethane	97
Heptane	91
Trichloroethene	90
1,2-Dichloropropane	96
1,4-Dioxane	95
Bromodichloromethane	97
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	100
Toluene	96
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	98
Tetrachloroethene	108

Client Sample ID: CCV

Lab ID#: 1009223A-22D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 07:58 AM

Compound	%Recovery
2-Hexanone	98
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	101
Chlorobenzene	100
Ethyl Benzene	97
m,p-Xylene	99
o-Xylene	99
Styrene	100
Bromoform	104
Cumene	103
1,1,2,2-Tetrachloroethane	96
Propylbenzene	96
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	121
Hexachlorobutadiene	124

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 1009223A-23A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:14 AM

Compound	%Recovery
Freon 12	103
Freon 114	104
Chloromethane	125
Vinyl Chloride	120
1,3-Butadiene	121
Bromomethane	110
Chloroethane	114
Freon 11	110
Ethanol	103
Freon 113	94
1,1-Dichloroethene	102
Acetone	105
2-Propanol	100
Carbon Disulfide	114
3-Chloropropene	108
Methylene Chloride	110
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	107
Hexane	113
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	112
Tetrahydrofuran	118
Chloroform	108
1,1,1-Trichloroethane	106
Cyclohexane	108
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	115
Benzene	108
1,2-Dichloroethane	115
Heptane	110
Trichloroethene	105
1,2-Dichloropropane	112
1,4-Dioxane	104
Bromodichloromethane	107
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	107
Toluene	101
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	105
Tetrachloroethene	100

Client Sample ID: LCS

Lab ID#: 1009223A-23A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:14 AM

Compound	%Recovery
2-Hexanone	105
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	108
Chlorobenzene	104
Ethyl Benzene	105
m,p-Xylene	104
o-Xylene	101
Styrene	108
Bromoform	105
Cumene	104
1,1,2,2-Tetrachloroethane	108
Propylbenzene	106
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	111
Hexachlorobutadiene	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCSD

Lab ID#: 1009223A-23AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:33 AM

Compound	%Recovery
Freon 12	104
Freon 114	105
Chloromethane	124
Vinyl Chloride	119
1,3-Butadiene	120
Bromomethane	110
Chloroethane	113
Freon 11	109
Ethanol	107
Freon 113	94
1,1-Dichloroethene	103
Acetone	108
2-Propanol	102
Carbon Disulfide	114
3-Chloropropene	111
Methylene Chloride	111
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	109
Hexane	114
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	114
Tetrahydrofuran	117
Chloroform	108
1,1,1-Trichloroethane	106
Cyclohexane	109
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	117
Benzene	109
1,2-Dichloroethane	114
Heptane	112
Trichloroethene	107
1,2-Dichloropropane	113
1,4-Dioxane	104
Bromodichloromethane	108
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	104
Toluene	102
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	106
Tetrachloroethene	102

Client Sample ID: LCSD

Lab ID#: 1009223A-23AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b091505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 09:33 AM

Compound	%Recovery
2-Hexanone	109
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	111
Chlorobenzene	107
Ethyl Benzene	107
m,p-Xylene	106
o-Xylene	105
Styrene	111
Bromoform	108
Cumene	106
1,1,2,2-Tetrachloroethane	111
Propylbenzene	109
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	111
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	122
Hexachlorobutadiene	118

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1009223A-23B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 10:52 PM

Compound	%Recovery
Freon 12	107
Freon 114	104
Chloromethane	103
Vinyl Chloride	105
1,3-Butadiene	104
Bromomethane	113
Chloroethane	103
Freon 11	107
Ethanol	113
Freon 113	90
1,1-Dichloroethene	91
Acetone	86
2-Propanol	94
Carbon Disulfide	91
3-Chloropropene	100
Methylene Chloride	95
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	101
Hexane	102
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	98
Tetrahydrofuran	105
Chloroform	102
1,1,1-Trichloroethane	106
Cyclohexane	103
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	103
Benzene	103
1,2-Dichloroethane	107
Heptane	104
Trichloroethene	104
1,2-Dichloropropane	106
1,4-Dioxane	102
Bromodichloromethane	106
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	107
Toluene	99
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	104
Tetrachloroethene	101

Client Sample ID: LCS

Lab ID#: 1009223A-23B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 10:52 PM

Compound	%Recovery
2-Hexanone	107
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	108
Chlorobenzene	103
Ethyl Benzene	106
m,p-Xylene	106
o-Xylene	103
Styrene	105
Bromoform	108
Cumene	102
1,1,2,2-Tetrachloroethane	104
Propylbenzene	102
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCSD

Lab ID#: 1009223A-23BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 11:09 PM

Compound	%Recovery
Freon 12	108
Freon 114	105
Chloromethane	103
Vinyl Chloride	105
1,3-Butadiene	105
Bromomethane	118
Chloroethane	104
Freon 11	108
Ethanol	108
Freon 113	92
1,1-Dichloroethene	91
Acetone	85
2-Propanol	94
Carbon Disulfide	92
3-Chloropropene	100
Methylene Chloride	96
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	101
Hexane	103
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	99
Tetrahydrofuran	105
Chloroform	103
1,1,1-Trichloroethane	106
Cyclohexane	104
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	109
Benzene	104
1,2-Dichloroethane	108
Heptane	107
Trichloroethene	103
1,2-Dichloropropane	107
1,4-Dioxane	103
Bromodichloromethane	106
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	106
Toluene	99
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	108
Tetrachloroethene	103

Client Sample ID: LCSD

Lab ID#: 1009223A-23BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 11:09 PM

Compound	%Recovery
2-Hexanone	109
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	111
Chlorobenzene	105
Ethyl Benzene	109
m,p-Xylene	108
o-Xylene	106
Styrene	106
Bromoform	106
Cumene	105
1,1,2,2-Tetrachloroethane	106
Propylbenzene	105
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	102
Hexachlorobutadiene	106

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1009223A-23C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 08:38 AM

Compound	%Recovery
Freon 12	106
Freon 114	120
Chloromethane	104
Vinyl Chloride	109
1,3-Butadiene	108
Bromomethane	102
Chloroethane	105
Freon 11	104
Ethanol	94
Freon 113	106
1,1-Dichloroethene	94
Acetone	105
2-Propanol	101
Carbon Disulfide	106
3-Chloropropene	99
Methylene Chloride	94
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	106
Hexane	104
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	97
Tetrahydrofuran	89
Chloroform	89
1,1,1-Trichloroethane	95
Cyclohexane	87
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	89
Benzene	83
1,2-Dichloroethane	89
Heptane	82
Trichloroethene	78
1,2-Dichloropropane	89
1,4-Dioxane	89
Bromodichloromethane	96
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	95
Toluene	90
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	100
Tetrachloroethene	109

Client Sample ID: LCS

Lab ID#: 1009223A-23C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 08:38 AM

Compound	%Recovery
2-Hexanone	95
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	105
Chlorobenzene	97
Ethyl Benzene	93
m,p-Xylene	90
o-Xylene	93
Styrene	97
Bromoform	99
Cumene	90
1,1,2,2-Tetrachloroethane	82
Propylbenzene	80
4-Ethyltoluene	89
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	90
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	100
Hexachlorobutadiene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: LCSD

Lab ID#: 1009223A-23CC

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091608	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:56 AM

Compound	%Recovery
Freon 12	98
Freon 114	104
Chloromethane	91
Vinyl Chloride	99
1,3-Butadiene	100
Bromomethane	96
Chloroethane	96
Freon 11	100
Ethanol	89
Freon 113	93
1,1-Dichloroethene	85
Acetone	95
2-Propanol	90
Carbon Disulfide	96
3-Chloropropene	95
Methylene Chloride	88
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	101
Hexane	100
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	99
Tetrahydrofuran	95
Chloroform	90
1,1,1-Trichloroethane	100
Cyclohexane	100
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	105
Benzene	94
1,2-Dichloroethane	95
Heptane	98
Trichloroethene	92
1,2-Dichloropropane	100
1,4-Dioxane	99
Bromodichloromethane	98
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	100
Toluene	94
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	102
Tetrachloroethene	108

Client Sample ID: LCSD

Lab ID#: 1009223A-23CC

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091608	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:56 AM

Compound	%Recovery
2-Hexanone	104
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	106
Chlorobenzene	102
Ethyl Benzene	102
m,p-Xylene	104
o-Xylene	104
Styrene	110
Bromoform	107
Cumene	104
1,1,2,2-Tetrachloroethane	96
Propylbenzene	95
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	122

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 1009223A-23D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 08:40 AM

Compound	%Recovery
Freon 12	113
Freon 114	115
Chloromethane	103
Vinyl Chloride	109
1,3-Butadiene	107
Bromomethane	102
Chloroethane	103
Freon 11	110
Ethanol	90
Freon 113	99
1,1-Dichloroethene	89
Acetone	90
2-Propanol	87
Carbon Disulfide	88
3-Chloropropene	79
Methylene Chloride	82
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	92
Hexane	90
1,1-Dichloroethane	90
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	91
Tetrahydrofuran	92
Chloroform	95
1,1,1-Trichloroethane	104
Cyclohexane	91
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	97
Benzene	89
1,2-Dichloroethane	103
Heptane	90
Trichloroethene	89
1,2-Dichloropropane	93
1,4-Dioxane	92
Bromodichloromethane	100
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	93
Toluene	91
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	96
Tetrachloroethene	106

Client Sample ID: LCS

Lab ID#: 1009223A-23D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 08:40 AM

Compound	%Recovery
2-Hexanone	98
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	104
Chlorobenzene	101
Ethyl Benzene	99
m,p-Xylene	100
o-Xylene	96
Styrene	99
Bromoform	105
Cumene	98
1,1,2,2-Tetrachloroethane	87
Propylbenzene	87
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	127
Hexachlorobutadiene	134 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCSD

Lab ID#: 1009223A-23DD

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 09:16 AM

Compound	%Recovery
Freon 12	98
Freon 114	102
Chloromethane	92
Vinyl Chloride	100
1,3-Butadiene	98
Bromomethane	98
Chloroethane	94
Freon 11	101
Ethanol	86
Freon 113	93
1,1-Dichloroethene	87
Acetone	90
2-Propanol	91
Carbon Disulfide	90
3-Chloropropene	91
Methylene Chloride	85
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	94
Hexane	95
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	95
Tetrahydrofuran	92
Chloroform	96
1,1,1-Trichloroethane	103
Cyclohexane	95
Carbon Tetrachloride	103
2,2,4-Trimethylpentane	98
Benzene	93
1,2-Dichloroethane	97
Heptane	94
Trichloroethene	91
1,2-Dichloropropane	97
1,4-Dioxane	102
Bromodichloromethane	101
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	100
Toluene	94
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	100
Tetrachloroethene	106

Client Sample ID: LCSD

Lab ID#: 1009223A-23DD

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w091704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/17/10 09:16 AM

Compound	%Recovery
2-Hexanone	97
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	104
Chlorobenzene	101
Ethyl Benzene	101
m,p-Xylene	100
o-Xylene	99
Styrene	105
Bromofom	106
Cumene	104
1,1,2,2-Tetrachloroethane	97
Propylbenzene	95
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	120
Hexachlorobutadiene	124

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130



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) 467-4822

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 3

Project Manager Jeff Adams
Collected by: (Print and Sign) Kelly Hunt Email khunt@airtoxics.com
Company UPS Corporation
Address 1001 Highway 168, Dr. 51030 City San Jose State CA Zip 95128
Phone 408-283-0100 Fax 408-283-0462

Project Info:
P.O. # _____
Project # Perma Press Plus
Project Name _____
Turn Around Time: ☐ Normal ☐ Rush
Pressurized by: _____
Date: _____
Pressurization Gas: N₂ He _____

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial	Final
01A	VMP-5-5-090910	2692	09/09/10	09:27/09:53	Met: 10-15 / ASTM D-416 + 112	29	8.5
02A	VMP-3-31.5-090910	5815	09/09/10	14:16/14:52	"	29	3
03A	VMP-11-8-090810	2716	09/08/10	09:26/10:09	"	30	7
04A	VMP-18-8.5-090710	3402	09/07/10	08:58/09:33	"	30	7
05A	VMP-8-12.5-090910	1938	09/09/10	10:35/11:06	"	30	8
06A	VMP-3-5-090910	1156	09/09/10	13:21/13:44	"	30	2.5
07A	VMP-5-31-090910	744	09/09/10	11:41/12:11	"	39.5	4
08A	VMP-10-10-090710	3263	09/07/10	11:41/12:14	"	30	7.5
09A	VMP-6-31.5-090810	3822	09/08/10	15:11/15:17	"	30	6
10A	VMP-10-5-090710	5164	09/07/10	10:29/11:03	"	30	7.5

Relinquished by: (signature) [Signature] Date/Time 9/9/10 1800
Relinquished by: (signature) [Signature] Date/Time _____
Relinquished by: (signature) [Signature] Date/Time _____
Notes: - 14 day hold time
- Report results between MPL and RL
- 2nd level ID ECLP

Lab Use Only:
Shipper Name Red Ex Air Bill # _____
Temp (°C) NA Condition GOOD Custody Seals Intact? Yes No None Work Order # 1009223



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 3

Project Manager Jeff Adams
Collected by: (Print and Sign) Kelly Hunt
Company UP-S Corporation Email thomasc@upcorp.com
Address 1014 Hyland Place Dr Suite 200 City St. Louis State MO Zip 63106
Phone 314 419-0100 Fax 314 419-0462

Project Info:
P.O. # _____
Project # _____
Project Name Carbon Dissolved Phase
Turn Around Time: ☐ Normal ☐ Rush
Pressurized by: _____
Data _____
Pressurization Gas N₂
He _____

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
11A	VMP-10-20-090710-DJP	2123	09/07/10	1246/1316	Model TO-15 / AS7M D-1116	Initial Final
12A	VMP-11-29-090810	3573	09/08/10	1040/1117	"	29 7
13A	VMP-11-25-090710	2010	09/07/10	1430/1445	"	30 5.5
14A	VMP-6-5-090810	3115	09/08/10	1250/1322	"	30 7
15A	VMP-10-20-090710	3767	09/07/10	1246/1318	"	29 8.5
16A	VMP-12-11-090310	2158	09/03/10	1243/1334	"	30 8
17A	VMP-12-15-090310	3487	09/03/10	1126/1156	"	30 8
18A	VMP-16-19-090310	2700	09/03/10	1414/1447	"	30 5
19A	VMP-12-25-090310	3924	09/03/10	1356/1435	"	30 7
20A	VMP-6-10-090810	3766	09/08/10	1400/1436	"	30 4.5

Notes:
- 1/2 bag held time
- kept results between 10L and 2L
- Level IV EVF

Received by: (signature) Monica Green Date/Time 9/10/10 10:55
Relinquished by: (signature) Jeff Adams Date/Time 9/9/10 1500
Relinquished by: (signature) _____ Date/Time _____

Shipper Name: _____ Air Bill # _____ Temp (°C) _____ Condition _____
Custody Seals Intact? Yes ☐ No ☒ Work Order # 1000228

9/24/2010

Mr. Jeff Adams

URS Corporation

1001 Highlands Plaza Dr. West

Suite 300

St. Louis MO 63110

Project Name: Roxana Dissolved Phase

Project #:

Workorder #: 1009223B

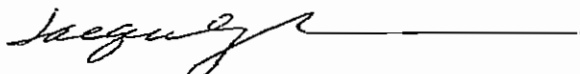
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/10/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta

Project Manager

Reviewed
on

9/27/2010

WORK ORDER #: 1009223B

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/10/2010

DATE COMPLETED: 09/23/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
21A	VMP-16-31-090310	Modified TO-15	9.0 "Hg	15 psi
21B	VMP-16-31-090310	Modified TO-15	9.0 "Hg	15 psi
22A	Lab Blank	Modified TO-15	NA	NA
23A	CCV	Modified TO-15	NA	NA
24A	LCS	Modified TO-15	NA	NA
24AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:

Sandra A. Freeman

Laboratory Director

DATE: 09/24/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009223B

One 1 Liter Summa Canister sample was received on September 10, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Due to high-level target compounds, sample VMP-16-31-090310 was analyzed twice. In the "A" fraction, the sample was diluted to bring the highest-level compounds within the calibration range. The "B" fraction is also reported by client request and may be reported with "E" flags indicating the compound exceeds the calibration range. Both runs and associated QC are reported.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

The recovery of surrogate 1,2-Dichloroethane-d4 in the undiluted analysis of sample VMP-16-31-090310 was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-16-31-090310 * Use these results only. All other data was reported from the 2.89X dilution analysis. "

Lab ID#: 1009223B-21A

DF = 9.63"

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
~~Bromomethane~~	4.8	1.7 J	10	6.5 J
~~Ethanol~~	10	13 J	36	24 J
~~Acetone~~	10	17 J	46	40 J
~~2-Propanol~~	10	18 J	47	45 J
~~Carbon Disulfide~~	4.8	2.7 J	15	8.3 J
~~Methyl tert-butyl ether~~	4.8	4.4 J	17	16 J
~~2-Butanone (Methyl Ethyl Ketone)~~	4.8	1.8 J	14	5.4 J
~~Cyclohexane~~	4.8	16	16	54
* 2,2,4-Trimethylpentane	4.8	1600	22	7400
~~Benzene~~	4.8	2.5 J	15	8.0 J
~~Cumene~~	4.8	0.97 J	24	4.8 J
~~Propylbenzene~~	4.8	1.1 J	24	5.4 J

Client Sample ID: VMP-16-31-090310 * " Do not use this data. Use all other data. "

Lab ID#: 1009223B-21B

DF = 2.89"

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.36 J	7.1	1.8 J
Bromomethane	1.4	0.50 J	5.6	1.9 J
Freon 11	1.4	0.23 J	8.1	1.3 J
Ethanol	5.8	7.6	11	14
Acetone	5.8	14	14	33
2-Propanol	5.8	17	14	41
Carbon Disulfide	1.4	1.1 J	4.5	3.6 J
Methyl tert-butyl ether	1.4	4.0	5.2	14
Hexane	1.4	0.80 J	5.1	2.8 J
2-Butanone (Methyl Ethyl Ketone)	1.4	1.9	4.3	5.6
Cyclohexane	1.4	14	5.0	49
* 2,2,4-Trimethylpentane	1.4	1500 E	6.8	7000 E
Benzene	1.4	2.0	4.6	6.4
Toluene	1.4	0.44 J	5.4	1.6 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223B-21B

Ethyl Benzene	1.4	0.46 J	6.3	2.0 J
m,p-Xylene	1.4	0.54 J	6.3	2.4 J
Cumene	1.4	0.75 J	7.1	3.7 J
Propylbenzene	1.4	0.96 J	7.1	4.7 J
1,3,5-Trimethylbenzene	1.4	0.56 J	7.1	2.7 J
1,2,4-Trimethylbenzene	1.4	0.58 J	7.1	2.8 J

* "Use these results only. All other data was reported from the 2.8% dilution analysis."

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091722	Date of Collection:	9/3/10 10:16:00 AM	
Dil. Factor:	9.63	Date of Analysis:	9/17/10 05:18 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.8	Not Detected	24	Not Detected
Freon 114	4.8	Not Detected	34	Not Detected
Chloromethane	19	Not Detected	40	Not Detected
Vinyl Chloride	4.8	Not Detected	12	Not Detected
1,3-Butadiene	4.8	Not Detected	11	Not Detected
Bromomethane	4.8	1.7 J	19	6.5 J
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	4.8	Not Detected	27	Not Detected
Ethanol	19	13 J	36	24 J
Freon-113	4.8	Not Detected	37	Not Detected
1,1-Dichloroethene	4.8	Not Detected	19	Not Detected
Acetone	19	17 J	46	40 J
2-Propanol	19	18 J	47	45 J
Carbon Disulfide	4.8	2.7 J	15	8.3 J
3-Chloropropene	19	Not Detected	60	Not Detected
Methylene Chloride	4.8	Not Detected	17	Not Detected
Methyl tert-butyl ether	4.8	4.4 J	17	16 J
trans-1,2-Dichloroethene	4.8	Not Detected	19	Not Detected
Hexane	4.8	Not Detected	17	Not Detected
1,1-Dichloroethane	4.8	Not Detected	19	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	1.8 J	14	5.4 J
cis-1,2-Dichloroethene	4.8	Not Detected	19	Not Detected
Tetrahydrofuran	4.8	Not Detected	14	Not Detected
Chloroform	4.8	Not Detected	24	Not Detected
1,1,1-Trichloroethane	4.8	Not Detected	26	Not Detected
Cyclohexane	4.8	16	16	54
Carbon Tetrachloride	4.8	Not Detected	30	Not Detected
2,2,4-Trimethylpentane	4.8	1600	22	7400
Benzene	4.8	2.5 J	15	8.0 J
1,2-Dichloroethane	4.8	Not Detected	19	Not Detected
Heptane	4.8	Not Detected	20	Not Detected
Trichloroethene	4.8	Not Detected	26	Not Detected
1,2-Dichloropropane	4.8	Not Detected	22	Not Detected
1,4-Dioxane	19	Not Detected	69	Not Detected
Bromodichloromethane	4.8	Not Detected	32	Not Detected
cis-1,3-Dichloropropene	4.8	Not Detected	22	Not Detected
4-Methyl-2-pentanone	4.8	Not Detected	20	Not Detected
Toluene	4.8	Not Detected	18	Not Detected
trans-1,3-Dichloropropene	4.8	Not Detected	22	Not Detected
1,1,2-Trichloroethane	4.8	Not Detected	26	Not Detected
Tetrachloroethene	4.8	Not Detected	33	Not Detected

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091722	Date of Collection:	9/3/10 10:16:00 AM	
Dil. Factor:	9.63	Date of Analysis:	9/17/10 05:18 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	19	Not Detected	79	Not Detected
Dibromochloromethane	4.8	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	4.8	Not Detected	37	Not Detected
Chlorobenzene	4.8	Not Detected	22	Not Detected
Ethyl Benzene	4.8	Not Detected	21	Not Detected
m,p-Xylene	4.8	Not Detected	21	Not Detected
o-Xylene	4.8	Not Detected	21	Not Detected
Styrene	4.8	Not Detected	20	Not Detected
Bromoform	4.8	Not Detected	50	Not Detected
Cumene	4.8	0.97 J	24	4.8 J
1,1,2,2-Tetrachloroethane	4.8	Not Detected	33	Not Detected
Propylbenzene	4.8	1.1 J	24	5.4 J
4-Ethyltoluene	4.8	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	4.8	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	4.8	Not Detected	24	Not Detected
1,3-Dichlorobenzene	4.8	Not Detected	29	Not Detected
1,4-Dichlorobenzene	4.8	Not Detected	29	Not Detected
alpha-Chlorotoluene	4.8	Not Detected	25	Not Detected
1,2-Dichlorobenzene	4.8	Not Detected	29	Not Detected
1,2,4-Trichlorobenzene	19	Not Detected	140	Not Detected
Hexachlorobutadiene	19	Not Detected	200	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	121	70-130
4-Bromofluorobenzene	98	70-130

* "Do not use this data.
Use all other data."

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223B-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091725	Date of Collection:	9/3/10 10:16:00 AM
Dil. Factor:	2.89	Date of Analysis:	9/17/10 06:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	0.36 J	7.1	1.8 J
Freon 114	1.4	Not Detected	10	Not Detected
Chloromethane	5.8	Not Detected	12	Not Detected
Vinyl Chloride	1.4	Not Detected	3.7	Not Detected
1,3-Butadiene	1.4	Not Detected	3.2	Not Detected
Bromomethane	1.4	0.50 J	5.6	1.9 J
Chloroethane	1.4	Not Detected	3.8	Not Detected
Freon 11	1.4	0.23 J	8.1	1.3 J
Ethanol	5.8	7.6	11	14
~~Freon-113~~	~~1.4~~	~~Not Detected~~	~~11~~	~~Not Detected~~
1,1-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Acetone	5.8	14	14	33
2-Propanol	5.8	17	14	41
Carbon Disulfide	1.4	1.1 J	4.5	3.6 J
3-Chloropropene	5.8	Not Detected	18	Not Detected
Methylene Chloride	1.4	Not Detected	5.0	Not Detected
Methyl tert-butyl ether	1.4	4.0	5.2	14
trans-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Hexane	1.4	0.80 J	5.1	2.8 J
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.4	1.9	4.3	5.6
cis-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Tetrahydrofuran	1.4	Not Detected	4.3	Not Detected
Chloroform	1.4	Not Detected	7.0	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.9	Not Detected
Cyclohexane	1.4	14	5.0	49
Carbon Tetrachloride	1.4	Not Detected	9.1	Not Detected
~~2,2,4-Trimethylpentane~~	~~1.4~~	~~1500 E~~	~~6.8~~	~~7000 E~~
Benzene	1.4	2.0	4.6	6.4
1,2-Dichloroethane	1.4	Not Detected	5.8	Not Detected
Heptane	1.4	Not Detected	5.9	Not Detected
Trichloroethene	1.4	Not Detected	7.8	Not Detected
1,2-Dichloropropane	1.4	Not Detected	6.7	Not Detected
1,4-Dioxane	5.8	Not Detected	21	Not Detected
Bromodichloromethane	1.4	Not Detected	9.7	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.6	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.9	Not Detected
Toluene	1.4	0.44 J	5.4	1.6 J
trans-1,3-Dichloropropene	1.4	Not Detected	6.6	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.9	Not Detected
Tetrachloroethene	1.4	Not Detected	9.8	Not Detected

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223B-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091725	Date of Collection: 9/3/10 10:16:00 AM
Dil. Factor:	2.89	Date of Analysis: 9/17/10 06:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.8	Not Detected	24	Not Detected
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.6	Not Detected
Ethyl Benzene	1.4	0.46 J	6.3	2.0 J
m,p-Xylene	1.4	0.54 J	6.3	2.4 J
o-Xylene	1.4	Not Detected	6.3	Not Detected
Styrene	1.4	Not Detected	6.2	Not Detected
Bromoform	1.4	Not Detected	15	Not Detected
Cumene	1.4	0.75 J	7.1	3.7 J
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.9	Not Detected
Propylbenzene	1.4	0.96 J	7.1	4.7 J
4-Ethyltoluene	1.4	Not Detected	7.1	Not Detected
1,3,5-Trimethylbenzene	1.4	0.56 J	7.1	2.7 J
1,2,4-Trimethylbenzene	1.4	0.58 J	7.1	2.8 J
1,3-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.5	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
1,2,4-Trichlorobenzene	5.8	Not Detected	43	Not Detected
Hexachlorobutadiene	5.8	Not Detected	62	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Q = Exceeds Quality Control limits.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	143 Q	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009223B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091709a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/17/10 09:54 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	0.24 J	1.9	0.92 J
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	0.30 J	1.6	0.92 J
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	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
1,4-Dioxane	2.0	Not Detected	7.2	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

Client Sample ID: Lab Blank

Lab ID#: 1009223B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091709a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/17/10 09:54 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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
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
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	0.11 J	3.0	0.66 J
1,4-Dichlorobenzene	0.50	0.12 J	3.0	0.74 J
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: CCV

Lab ID#: 1009223B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:32 PM

Compound	%Recovery
Freon 12	107
Freon 114	102
Chloromethane	105
Vinyl Chloride	102
1,3-Butadiene	100
Bromomethane	115
Chloroethane	100
Freon 11	107
Ethanol	123
Freon-113	101
1,1-Dichloroethene	99
Acetone	85
2-Propanol	96
Carbon Disulfide	89
3-Chloropropene	100
Methylene Chloride	102
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	100
Hexane	99
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	99
Tetrahydrofuran	104
Chloroform	106
1,1,1-Trichloroethane	109
Cyclohexane	102
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	106
Benzene	104
1,2-Dichloroethane	113
Heptane	106
Trichloroethene	105
1,2-Dichloropropane	107
1,4-Dioxane	106
Bromodichloromethane	109
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	114
Toluene	106
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	106
Tetrachloroethene	103

Client Sample ID: CCV

Lab ID#: 1009223B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:32 PM

Compound	%Recovery
2-Hexanone	110
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	106
Chlorobenzene	103
Ethyl Benzene	105
m,p-Xylene	105
o-Xylene	103
Styrene	106
Bromoform	106
Cumene	105
1,1,2,2-Tetrachloroethane	104
Propylbenzene	105
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1009223B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:49 PM

Compound	%Recovery
Freon 12	115
Freon 114	109
Chloromethane	113
Vinyl Chloride	110
1,3-Butadiene	108
Bromomethane	128
Chloroethane	107
Freon 11	114
Ethanol	107
Freon-113	97
1,1-Dichloroethene	95
Acetone	87
2-Propanol	98
Carbon Disulfide	95
3-Chloropropene	102
Methylene Chloride	99
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	105
Hexane	105
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	103
Tetrahydrofuran	109
Chloroform	110
1,1,1-Trichloroethane	114
Cyclohexane	107
Carbon Tetrachloride	115
2,2,4-Trimethylpentane	115
Benzene	109
1,2-Dichloroethane	115
Heptane	112
Trichloroethene	111
1,2-Dichloropropane	113
1,4-Dioxane	110
Bromodichloromethane	114
cis-1,3-Dichloropropene	116
4-Methyl-2-pentanone	114
Toluene	106
trans-1,3-Dichloropropene	116
1,1,2-Trichloroethane	111
Tetrachloroethene	108

Client Sample ID: LCS

Lab ID#: 1009223B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 10:49 PM

Compound	%Recovery
2-Hexanone	111
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	114
Chlorobenzene	109
Ethyl Benzene	111
m,p-Xylene	111
o-Xylene	109
Styrene	110
Bromoform	111
Cumene	107
1,1,2,2-Tetrachloroethane	110
Propylbenzene	108
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	117
1,2-Dichlorobenzene	105
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	109

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCSD

Lab ID#: 1009223B-24AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 11:06 PM

Compound	%Recovery
Freon 12	110
Freon 114	105
Chloromethane	108
Vinyl Chloride	106
1,3-Butadiene	105
Bromomethane	122
Chloroethane	102
Freon 11	109
Ethanol	127
Freon-113	92
1,1-Dichloroethene	91
Acetone	85
2-Propanol	95
Carbon Disulfide	91
3-Chloropropene	100
Methylene Chloride	94
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	103
Hexane	101
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	99
Tetrahydrofuran	105
Chloroform	105
1,1,1-Trichloroethane	110
Cyclohexane	103
Carbon Tetrachloride	111
2,2,4-Trimethylpentane	111
Benzene	104
1,2-Dichloroethane	111
Heptane	108
Trichloroethene	106
1,2-Dichloropropane	110
1,4-Dioxane	105
Bromodichloromethane	109
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	108
Toluene	101
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	111
Tetrachloroethene	106

Client Sample ID: LCSD

Lab ID#: 1009223B-24AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p091704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/16/10 11:06 PM

Compound	%Recovery
2-Hexanone	110
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	113
Chlorobenzene	107
Ethyl Benzene	109
m,p-Xylene	110
o-Xylene	108
Styrene	108
Bromoform	108
Cumene	107
1,1,2,2-Tetrachloroethane	109
Propylbenzene	107
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	112

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	103	70-130



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

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Page 3 of 3

Page 3 of 5

Project Info:		Lab Use Only	
P.O. # _____	Turn Around Time:	Pressurized by:	
Project # _____	☐ Normal	Date:	
Project Name <i>Co. Name Display Place</i>	☐ Rush	Pressurization Gas:	N He

[illegible]

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes:		
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time			
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time			
Lab	Shipper Name	Air Bill #	Temp. (°C)	Condition	Custody, Seals Intact?	Work Order #
Use Only	Red Ex		NA	Good	Yes No	1000223

10/25/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009223CR1

Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/10/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager, Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
10/25/2010

WORK ORDER #: 1009223CR1

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxana Dissolved Phase
DATE RECEIVED:	09/10/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/23/2010		
DATE REISSUED:	10/25/2010		

FRACTION #	NAME	TEST	RECEIPT	FINAL
			VAC./PRES.	PRESSURE
11A	VMP-10-20-090710-DUP ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
12A	VMP-11-29-090810 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
13A	VMP-11-5-090710 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
14A	VMP-6-5-090810 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
15A	VMP-10-20-090710 ✓	Modified ASTM D-1946	8.0 "Hg	15 psi
16A	VMP-12-11.5-090310 ✓	Modified ASTM D-1946	8.0 "Hg	15 psi
17A	VMP-12-5-090310 ✓	Modified ASTM D-1946	7.5 "Hg	15 psi
18A	VMP-16-19-090210 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
19A	VMP-12-25-090310 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
20A	VMP-6-10-090810 ✓	Modified ASTM D-1946	4.5 "Hg	15 psi
21A	Lab Blank	Modified ASTM D-1946	NA	NA
21B	Lab Blank	Modified ASTM D-1946	NA	NA
21C	Lab Blank	Modified ASTM D-1946	NA	NA
21D	Lab Blank	Modified ASTM D-1946	NA	NA
22A	LCS	Modified ASTM D-1946	NA	NA
22AA	LCSD	Modified ASTM D-1946	NA	NA
22B	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sandra J. Freeman

DATE: 10/25/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009223CR1**

Ten 1 Liter Summa Canister samples were received on September 10, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

THE WORKORDER WAS REISSUED ON 10/25/10 TO REPORT ADDITIONAL COMPOUND PER CLIENT'S REQUEST.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223CR1-11A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.52	26
Nitrogen	0.52	74
Methane	0.00052	0.00025 J
Carbon Dioxide	0.052	0.16
Helium	0.26	0.076 J

Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223CR1-12A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.6
Nitrogen	0.26	83
Methane	0.00026	0.048
Carbon Dioxide	0.026	14
Helium	0.13	1.0

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223CR1-13A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	12
Nitrogen	0.25	80
Methane	0.00025	0.00072
Carbon Dioxide	0.025	8.0
Helium	0.12	0.0071 " 0.0 ND 0.0071 "

Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223CR1-14A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.4

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223CR1-14A

Nitrogen	0.26	82
Methane	0.00026	1.4
Carbon Dioxide	0.026	15
Ethane	0.0026	0.00049 J
Helium	0.13	0.0016 J "

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223CR1-15A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.56	20
Nitrogen	0.56	80
Methane	0.00056	0.00019 J
Carbon Dioxide	0.056	0.22
Helium	0.28	0.0079 J "

Client Sample ID: VMP-12-11.5-090310

Lab ID#: 1009223CR1-16A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	1.1
Nitrogen	0.28	46
Methane	0.00028	38
Carbon Dioxide	0.028	13
Ethane	0.0028	0.0011 J

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223CR1-17A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.27	0.97
Nitrogen	0.27	49
Methane	0.00027	36

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223CR1-17A

Carbon Dioxide	0.027	12
Ethane	0.0027	0.0012 J

Client Sample ID: VMP-16-19-090210

Lab ID#: 1009223CR1-18A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	0.73
Nitrogen	0.25	28
Methane	0.00025	51
Carbon Dioxide	0.025	19
Ethane	0.0025	0.0014 J

Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223CR1-19A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	0.99
Nitrogen	0.26	47
Methane	0.00026	36
Carbon Dioxide	0.026	13
Ethane	0.0026	0.0012 J
Helium	0.13	0.0038 J

0.0012 J

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223CR1-20A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.3
Nitrogen	0.24	80
Methane	0.00024	3.6
Carbon Dioxide	0.024	15
Ethane	0.0024	0.0012 J



Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223CRI-20A

Helium

0.12

0.0 ND ^u 0.014 u"



Client Sample ID: VMP-10-20-090710-DUP

Lab ID#: 1009223CR1-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092215	Date of Collection: 9/7/10 1:16:00 PM
Dil. Factor:	5.18	Date of Analysis: 9/22/10 08:07 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.52	26
Nitrogen	0.52	74
Carbon Monoxide	0.052	Not Detected
Methane	0.00052	0.00025 J
Carbon Dioxide	0.052	0.16
Ethane	0.0052	Not Detected
Ethene	0.0052	Not Detected
Helium	0.26	0.076 J

-J- Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-11-29-090810

Lab ID#: 1009223CR1-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092214	Date of Collection: 9/8/10 11:17:00 AM
Dil. Factor:	2.58	Date of Analysis: 9/22/10 07:12 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.6
Nitrogen	0.26	83
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.048
Carbon Dioxide	0.026	14
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	1.0

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-11-5-090710

Lab ID#: 1009223CR1-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092216	Date of Collection: 9/7/10 2:45:00 PM
Dil. Factor:	2.47	Date of Analysis: 9/22/10 08:32 PM
Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	12
Nitrogen	0.25	80
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	0.00072
Carbon Dioxide	0.025	8.0
Ethane	0.0025	Not Detected
Ethene	0.0025	Not Detected
Helium	0.12	0.00ND 0.0071 U"

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-6-5-090810

Lab ID#: 1009223CRI-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092219	Date of Collection:	9/8/10 1:22:00 PM
Dil. Factor:	2.64	Date of Analysis:	9/22/10 09:40 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	1.4	
Nitrogen	0.26	82	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	1.4	
Carbon Dioxide	0.026	15	
Ethane	0.0026	0.00049 J	
Ethene	0.0026	Not Detected	
Helium	0.13	0.00ND 0.016 LI	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-10-20-090710

Lab ID#: 1009223CRI-15A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092217	Date of Collection:	9/7/10 1:18:00 PM
Dil. Factor:	5.58	Date of Analysis:	9/22/10 08:54 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.56	20	
Nitrogen	0.56	80	
Carbon Monoxide	0.056	Not Detected	
Methane	0.00056	0.00019 J	
Carbon Dioxide	0.056	0.22	
Ethane	0.0056	Not Detected	
Ethene	0.0056	Not Detected	
Helium	0.28	0.0079 J	0.00ND 0.0079 J

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-12-11.5-090310

Lab ID#: 1009223CR1-16A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092220	Date of Collection:	9/3/10 1:34:00 PM
Dil. Factor:	2.76	Date of Analysis:	9/22/10 10:02 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.28	1.1	
Nitrogen	0.28	46	
Carbon Monoxide	0.028	Not Detected	
Methane	0.00028	38	
Carbon Dioxide	0.028	13	
Ethane	0.0028	0.0011 J	
Ethene	0.0028	Not Detected	
Helium	0.14	Not Detected	

J= Estimated value.

Methane was reported from file # 9092221 analyzed on 9/22/10 at a dilution factor of 4.14.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-12-5-090310

Lab ID#: 1009223CRI-17A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092222	Date of Collection:	9/3/10 11:56:00 AM
Dil. Factor:	2.69	Date of Analysis:	9/23/10 05:26 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.27	0.97	
Nitrogen	0.27	49	
Carbon Monoxide	0.027	Not Detected	
Methane	0.00027	36	
Carbon Dioxide	0.027	12	
Ethane	0.0027	0.0012 J	
Ethene	0.0027	Not Detected	
Helium	0.13	Not Detected	

J = Estimated value.

Methane was reported from file # 9092223 analyzed on 9/22/10 at a dilution factor of 5.38.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-16-19-090210

Lab ID#: 1009223CRI-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092224	Date of Collection: 9/2/10 2:47:00 PM
Dil. Factor:	2.47	Date of Analysis: 9/23/10 06:14 AM
Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	0.73
Nitrogen	0.25	28
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	51
Carbon Dioxide	0.025	19
Ethane	0.0025	0.0014 J
Ethene	0.0025	Not Detected
Helium	0.12	Not Detected

J=Estimated value.

Methane was reported from file # 9092225 analyzed on 9/22/10 at a dilution factor of 6.18.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-12-25-090310

Lab ID#: 1009223CR1-19A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092226	Date of Collection:	9/3/10 2:35:00 PM
Dil. Factor:	2.64	Date of Analysis:	9/23/10 07:04 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	0.99	
Nitrogen	0.26	47	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	36	
Carbon Dioxide	0.026	13	
Ethane	0.0026	0.0012 J	
Ethene	0.0026	Not Detected	
Helium	0.13	0.0038 J	0.00ND

J=Estimated value

Methane was reported from file # 9092308 analyzed on 9/23/10 at a dilution factor of 4.26.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-6-10-090810

Lab ID#: 1009223CR1-20A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092307	Date of Collection: 9/8/10 2:36:00 PM
Dil. Factor:	2.38	Date of Analysis: 9/23/10 10:22 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.3
Nitrogen	0.24	80
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	3.6
Carbon Dioxide	0.024	15
Ethane	0.0024	0.0012 J
Ethene	0.0024	Not Detected
Helium	0.12	0.0ND 0.0741

--J--Estimated value:--

Container Type: 1 Liter Summa Canister

Client Sample ID: Lab Blank

Lab ID#: 1009223CRI-21A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092204a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/22/10 03:27 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.10	0.0079 J	
Nitrogen	0.10	0.047 J	
Carbon Monoxide	0.010	Not Detected	
Methane	0.00010	Not Detected	
Carbon Dioxide	0.010	Not Detected	
Ethane	0.0010	Not Detected	
Ethene	0.0010	Not Detected	

J = Estimated value.

Container Type: NA = Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1009223CR1-21B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092305a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 09:31 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	0.049 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	0.0072 J
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009223CRI-21C

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092203br1	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/10 03:05 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	0.0044 J

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009223CR1-21D

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092304br1	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 09:08 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	0.0044 J

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: LCS

Lab ID#: 1009223CR1-22A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/10 02:33 PM

Compound	%Recovery
Oxygen	92
Nitrogen	100
Carbon Monoxide	101
Methane	99
Carbon Dioxide	100
Ethane	101
Ethene	101
Helium	96

Container Type: NA - Not Applicable



Client Sample ID: LCSD

Lab ID#: 1009223CR1-22AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092227	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 07:29 AM

Compound	%Recovery
Oxygen	92
Nitrogen	100
Carbon Monoxide	103
Methane	98
Carbon Dioxide	100
Ethane	100
Ethene	99
Helium	97

Container Type: NA = Not Applicable



Client Sample ID: LCS

Lab ID#: 1009223CR1-22B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 08:19 AM

Compound	%Recovery
Oxygen	95
Nitrogen	100
Carbon Monoxide	100
Methane	99
Carbon Dioxide	100
Ethane	100
Ethene	100
Helium	96

Container Type: NA--Not Applicable--



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) 487-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 3

Project Manager Steve Adams
Collected by: (Print and Sign) [Signature]
Company VP&S Corporation Email Steve@vpands.com
Address 1000 W. 14th St., Suite 100 City San Francisco State CA Zip 94114
Phone 415-441-0100 Fax 415-441-0412

Project Info:
P.O. # _____
Project # _____
Project Name Project D-15
Turn Around Time:
☐ Normal
☐ Rush
specify _____
Pressurized by: _____
Date: _____
Pressurization Gas: _____
He: _____

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
11A	VMP-10-08-090710-DUP	2123	09/07/10	1246/1316	MDL 70-15 / 152-15	Initial Final Receipt Final
12A	VMP-11-09-090810	3513	09/08/10	1040/1117	"	29 7.5
13A	VMP-11-05-090710	3010	09/07/10	1126/1147	"	30 7
14A	VMP-06-05-090810	3115	09/08/10	1250/1322	"	30 5.5
15A	VMP-10-02-090710	3767	09/07/10	1146/1318	"	30 7
16A	VMP-12-01-090310	2158	09/03/10	1243/1334	"	29 8.5
17A	VMP-12-05-090310	3187	09/03/10	1126/1156	"	30 8
18A	VMP-16-19-090210	2700	09/02/10	1044/1147	"	30 5
19A	VMP-12-05-090310	3904	09/03/10	1336/1435	"	30 7
20A	VMP-06-05-090810	3266	09/08/10	1440/1136	"	30 4.5

Notes:
- 14 day hold
- 8 day hold
- Level IV

Received by: (signature) [Signature] Date/Time 9/9/10 1500
Relinquished by: (signature) [Signature] Date/Time 9/9/10
Relinquished by: (signature) [Signature] Date/Time 9/10/10

Shipper Name VP&S Air Bill # NA Condition Good Custody Seals Intact? Yes Work Order # 1009223

9/23/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009223D

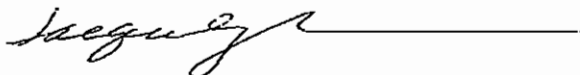
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/10/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

WORK ORDER #: 1009223D

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxana Dissolved Phase
DATE RECEIVED:	09/10/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/23/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC/PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-5-5-090910 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
02A	VMP-3-31.5-090910 ✓	Modified ASTM D-1946	1.5 "Hg	15 psi
03A	VMP-11-8-080910 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
04A	VMP-18-8.5-090710 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
05A	VMP-3-12.5-090910 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
06A	VMP-3-5-090910 ✓	Modified ASTM D-1946	1.5 "Hg	15 psi
07A	VMP-5-31-090910 ✓	Modified ASTM D-1946	2.5 "Hg	15 psi
08A	VMP-10-10-090710 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
09A	VMP-6-31.5-090810 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
10A	VMP-10-5-090710 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
21A	VMP-16-31-090310 ✓	Modified ASTM D-1946	9.0 "Hg	15 psi
22A	Lab Blank	Modified ASTM D-1946	NA	NA
22B	Lab Blank	Modified ASTM D-1946	NA	NA
23A	LCS	Modified ASTM D-1946	NA	NA
23AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sandra J. Freeman

DATE: 09/23/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009223D**

Eleven 1 Liter Summa Canister samples were received on September 10, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

~~File extensions may have been used on the data analysis sheets and indicates~~
as follows:

a-File was requantified

b-File was quantified by a second column and detector

rl-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-5-5-090910

Lab ID#: 1009223D-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	2.4
Nitrogen	0.26	78
Methane	0.00026	3.9
Carbon Dioxide	0.026	12
Ethane	0.0026	0.0036
Helium	0.13	1.6

Client Sample ID: VMP-3-31.5-090910

Lab ID#: 1009223D-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	1.3
Nitrogen	0.21	30
Methane	0.00051	47
Carbon Dioxide	0.021	4.4
Ethane	0.0021	0.017
Helium	0.11	0.018 J

Client Sample ID: VMP-11-8-080910

Lab ID#: 1009223D-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.53	16
Nitrogen	0.53	76
Methane	0.00053	0.0011
Carbon Dioxide	0.053	7.8
Helium	0.26	0.018 J

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223D-04A

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223D-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	11
Nitrogen	0.26	80
Methane	0.00026	0.00011 J
Carbon Dioxide	0.026	9.3
Helium	0.13	0.021 J

Client Sample ID: VMP-~~8~~12.5-090910

Lab ID#: 1009223D-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.3
Nitrogen	0.26	79
Methane	0.00026	3.7
Carbon Dioxide	0.026	14
Ethane	0.0026	0.0032
Helium	0.13	0.039 J

Client Sample ID: VMP-3-5-090910

Lab ID#: 1009223D-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	2.7
Nitrogen	0.21	76
Methane	0.00021	7.5
Carbon Dioxide	0.021	12
Ethane	0.0021	0.0018 J
Helium	0.11	0.50

Client Sample ID: VMP-5-31-090910

Lab ID#: 1009223D-07A

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-5-31-090910

Lab ID#: 1009223D-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	1.5
Nitrogen	0.22	55
Methane	0.00033	26
Carbon Dioxide	0.022	9.0
Ethane	0.0022	0.015
Helium	0.11	0.0 ND ~~0.010~~ "u"

Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223D-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	13
Nitrogen	0.26	79
Methane	0.00026	0.00013 J
Carbon Dioxide	0.026	7.6
Helium	0.13	0.0 ND ~~0.0008~~ "u"

Client Sample ID: VMP-6-31.5-090810

Lab ID#: 1009223D-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.2
Nitrogen	0.26	74
Methane	0.00026	8.6
Carbon Dioxide	0.026	14
Ethane	0.0026	0.0032

Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223D-10A

Compound	Rpt. Limit (%)	Amount (%)

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223D-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	15
Nitrogen	0.26	80
Methane	0.00026	0.00017 J
Carbon Dioxide	0.026	5.2
Helium	0.13	COND 0.015 J

Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223D-21A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.61	16
Nitrogen	0.61	62
Methane	0.00061	0.00046 J
Carbon Dioxide	0.061	0.090
Helium	0.30	22

Client Sample ID: VMP-5-5-090910

Lab ID#: 1009223D-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092109	Date of Collection:	9/9/10 9:53:00 AM
Dil. Factor:	2.64	Date of Analysis:	9/21/10 08:36 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	2.4	
Nitrogen	0.26	78	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	3.9	
Carbon Dioxide	0.026	12	
Ethane	0.0026	0.0036	
Ethene	0.0026	Not Detected	
Helium	0.13	1.6	

Container Type: 1-Liter Summa Canister



Client Sample ID: VMP-3-31.5-090910

Lab ID#: 1009223D-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092110	Date of Collection:	9/9/10 2:52:00 PM
Dil. Factor:	2.13	Date of Analysis:	9/21/10 08:58 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.21	1.3	
Nitrogen	0.21	30	
Carbon Monoxide	0.021	Not Detected	
Methane	0.00051	47	
Carbon Dioxide	0.021	4.4	
Ethane	0.0021	0.017	
Ethene	0.0021	Not Detected	
Helium	0.11	0.018 J	

J = Estimated value.

Methane was reported from file # 9092123 analyzed on September 21, 2010 at a dilution factor of 5.07.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-11-8-080910

Lab ID#: 1009223D-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092120	Date of Collection:	9/8/10 10:00:00 AM
Dil. Factor:	5.29	Date of Analysis:	9/21/10 01:29 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.53	16	
Nitrogen	0.53	76	
Carbon Monoxide	0.053	Not Detected	
Methane	0.00053	0.0011	
Carbon Dioxide	0.053	7.8	
Ethane	0.0053	Not Detected	
Ethene	0.0053	Not Detected	
Helium	0.26	0.018 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223D-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092121	Date of Collection:	9/7/10 9:33:00 AM
Dil. Factor:	2.58	Date of Analysis:	9/21/10 01:52 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	11	
Nitrogen	0.26	80	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	0.00011 J	
Carbon Dioxide	0.026	9.3	
Ethane	0.0026	Not Detected	
Ethene	0.0026	Not Detected	
Helium	0.13	0.021 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

"5"

Client Sample ID: VMP-~~8~~12.5-090910

Lab ID#: 1009223D-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092111	Date of Collection: 9/9/10 11:06:00 AM
Dil. Factor:	2.64	Date of Analysis: 9/21/10 09:23 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.3
Nitrogen	0.26	79
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	3.7
Carbon Dioxide	0.026	14
Ethane	0.0026	0.0032
Ethene	0.0026	Not Detected
Helium	0.13	0.039 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-3-5-090910

Lab ID#: 1009223D-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092112	Date of Collection: 9/9/10 1:44:00 PM
Dil. Factor:	2.13	Date of Analysis: 9/21/10 09:49 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.21	2.7
Nitrogen	0.21	76
Carbon Monoxide	0.021	Not Detected
Methane	0.00021	7.5
Carbon Dioxide	0.021	12
Ethane	0.0021	0.0018 J
Ethene	0.0021	Not Detected
Helium	0.11	0.50

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-5-31-090910

Lab ID#: 1009223D-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092113	Date of Collection:	9/9/10 12:11:00 PM
Dil. Factor:	2.20	Date of Analysis:	9/21/10 10:17 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.22	1.5	
Nitrogen	0.22	55	
Carbon Monoxide	0.022	Not Detected	
Methane	0.00033	26	
Carbon Dioxide	0.022	9.0	
Ethane	0.0022	0.015	
Ethene	0.0022	Not Detected	
Helium	0.11	0.010	

J. = Estimated value.

Methane was reported from file # 9092124 analyzed on September 21, 2010 at a dilution factor of 3.30.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-10-10-090710

Lab ID#: 1009223D-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092122	Date of Collection:	9/7/10 12:14:00 PM
Dil. Factor:	2.64	Date of Analysis:	9/21/10 02:15 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	13
Nitrogen	0.26	79
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.00013 J
Carbon Dioxide	0.026	7.6
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	0.0ND 0.00013 J

J. = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-6-31.5-090810

Lab ID#: 1009223D-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092114	Date of Collection:	9/8/10 3:42:00 PM
Dil. Factor:	2.58	Date of Analysis:	9/21/10 10:49 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	1.2	
Nitrogen	0.26	74	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	8.6	
Carbon Dioxide	0.026	14	
Ethane	0.0026	0.0032	
Ethene	0.0026	Not Detected	
Helium	0.13	Not Detected	

Container-Type: 1-Liter-Summa-Canister



Client Sample ID: VMP-10-5-090710

Lab ID#: 1009223D-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092118	Date of Collection:	9/7/10 11:03:00 AM
Dil. Factor:	2.64	Date of Analysis:	9/21/10 12:28 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	15
Nitrogen	0.26	80
Carbon Monoxide	0.026	Not Detected
Methane	0.00026	0.00017 J
Carbon Dioxide	0.026	5.2
Ethane	0.0026	Not Detected
Ethene	0.0026	Not Detected
Helium	0.13	0.0ND - 0.015 J"

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP-16-31-090310

Lab ID#: 1009223D-21A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092119	Date of Collection: 9/3/10 10:16:00 AM
Dil. Factor:	6.07	Date of Analysis: 9/21/10 01:01 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.61	16
Nitrogen	0.61	62
Carbon Monoxide	0.061	Not Detected
Methane	0.00061	0.00046 J
Carbon Dioxide	0.061	0.090
Ethane	0.0061	Not Detected
Ethene	0.0061	Not Detected
Helium	0.30	22

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: Lab Blank

Lab ID#: 1009223D-22A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092104a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 06:22 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.0074 J
Nitrogen	0.10	0.051 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009223D-22B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092103ba	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 05:58 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	0.0042 J

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: LCS

Lab ID#: 1009223D-23A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 05:37 AM

Compound	%Recovery
Oxygen	96
Nitrogen	100
Carbon Monoxide	102
Methane	94
Carbon Dioxide	100
Ethane	95
Ethene	95
Helium	97

Container Type: NA - Not Applicable



Client Sample ID: LCSD

Lab ID#: 1009223D-23AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092127	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 05:38 PM

Compound	%Recovery
Oxygen	94
Nitrogen	100
Carbon Monoxide	102
Methane	98
Carbon Dioxide	100
Ethane	99
Ethene	99
Helium	98

Container-Type: NA - Not Applicable



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) 467-4822

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 3

Project Manager John Adams
Collected by: (Print and Sign) [Signature] Email john.adams@airtoxics.com
Company U.S. Highway City Stockton State CA Zip 95210
Address 1201 Highway 99 City Stockton State CA Zip 95210
Phone 209-467-0000 Fax 209-467-0000

Project Info:
P.O. # _____
Project # 8000000000000000
Project Name _____
Turn Around Time:
☐ Normal
☐ Rush
Pressurized by: _____
Date: _____
Pressurization Gas: _____
N₂ He

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
011A	VMP-5-5-090610	2672	09/06/10	09:27/09:33	Metals, PCBs, PAHs, etc.	Initial: 29 Final: 8.5
012A	VMP-3-31-090610	2815	09/06/10	10:06/10:12	Metals, PCBs, PAHs, etc.	Initial: 29 Final: 3
013A	VMP-1-18-090610	3710	09/06/10	09:26/09:32	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 7
014A	VMP-3-18-090610	3102	09/06/10	08:58/09:04	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 7
015A	VMP-8-12-090610	1938	09/06/10	10:35/10:41	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 8
016A	VMP-3-5-090610	1156	09/06/10	13:21/13:27	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 2.5
017A	VMP-5-31-090610	7444	09/06/10	11:01/11:07	Metals, PCBs, PAHs, etc.	Initial: 30.5 Final: 4
018A	VMP-10-10-090610	3263	09/06/10	11:01/11:07	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 7.5
019A	VMP-6-31-090610	3522	09/06/10	15:11/15:17	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 6
020A	VMP-10-5-090610	5164	09/06/10	10:29/10:35	Metals, PCBs, PAHs, etc.	Initial: 30 Final: 7.5

Notes:
- 14 days hold time.
- Repack in the brown paper bag as per
- Label IV (see)

Received by: (signature) [Signature] Date/Time 9/6/10 15:00
Relinquished by: (signature) [Signature] Date/Time 9/6/10 15:00
Relinquished by: (signature) [Signature] Date/Time 9/6/10 15:00

Lab Shipper Name John Adams Air Bill # 1000000000000000 Temp (°C) N/A Condition Good Custody Seals Intact? Yes Work Order # 1000000000000000



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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Page 3 of 5

Project Manager Joe Adams
 Collected by: (Print and Sign) Kelly M. St. John
 Company Ukiah Corporation Email adamj@ukiah.com
 Address 1000 E. Highway 96, Ukiah, CA 95568 City Ukiah State CA Zip 95568
 Phone 707/461-0100 Fax 707/461-0163

Project Info: P.O. # _____ Project # _____ Project Name <u>Wet Mem</u> <u>Dye-diff. Proc.</u>	Turn Around Time: ☐ Normal ☐ Rush	<i>Lab Use Only</i> Pressurized by _____ Date _____ Pressurization Gas _____ N ₂ He

[illegible]

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes:		
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time			
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time			
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time			
Lab	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
Use Only					Yes	No

9/15/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009223E

Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/10/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/23/2010

WORK ORDER #: 1009223E

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/10/2010

DATE COMPLETED: 09/15/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
04A	VMP-18-8.5-090710 ✓	Modified TO-15	6.5 "Hg	15 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:

Sandra A. Freeman

Laboratory Director

DATE: 09/15/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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**LABORATORY NARRATIVE
EPA Method TO-15
URS Corporation
Workorder# 1009223E**

One 1 Liter Summa Canister sample was received on September 10, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ - Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223E-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.58 J	6.4	2.8 J
Bromomethane	1.3	0.0 ND 0.02 "u"	5.0	0.0 ND 2.4 "u"
Freon 11	1.3	0.43 J	7.2	2.4 J
Ethanol	5.2	6.0	9.7	11
Freon 113	1.3	0.26 J	9.9	2.0 J
Acetone	5.2	5.5	12	13
2-Propanol	5.2	5.9	13	14
Carbon Disulfide	1.3	2.2	4.0	6.9
Methyl tert-butyl ether	1.3	0.13 J	4.6	0.46 J
Hexane	1.3	0.46 J	4.5	1.6 J
2-Butanone (Methyl Ethyl Ketone)	1.3	1.1 J	3.8	3.2 J
Chloroform	1.3	0.20 J	6.3	0.97 J
1,1,1-Trichloroethane	1.3	0.21 J	7.0	1.1 J
Cyclohexane	1.3	1.8	4.4	6.3
Carbon Tetrachloride	1.3	0.19 J	8.1	1.2 J
2,2,4-Trimethylpentane	1.3	13	6.0	60
Benzene	1.3	29	4.1	93
1,2-Dichloroethane	1.3	0.28 J	5.2	1.1 J
Heptane	1.3	0.37 J	5.3	1.5 J
Trichloroethene	1.3	0.0 ND 0.08 "u"	6.9	0.0 ND 2.7 "u"
Bromodichloromethane	1.3	0.40 J	8.6	2.7 J
Toluene	1.3	0.55 J	4.9	2.1 J
Tetrachloroethene	1.3	0.0 ND 0.19 "u"	8.8	0.0 ND 1.3 "u"
Ethyl Benzene	1.3	0.0 ND 0.15 "u"	5.6	0.0 ND 0.08 "u"
m,p-Xylene	1.3	0.22 J	5.6	0.95 J
Cumene	1.3	0.0 ND 0.18 "u"	6.3	0.0 ND 0.09 "u"
1,1,2,2-Tetrachloroethane	1.3	0.0 ND 0.26 "u"	8.8	0.0 ND 1.8 "u"
Propylbenzene	1.3	0.0 ND 0.37 "u"	6.3	0.0 ND 1.8 "u"
1,2,4-Trimethylbenzene	1.3	0.0 ND 0.27 "u"	6.3	0.0 ND 1.3 "u"
1,3-Dichlorobenzene	1.3	0.0 ND 0.38 "u"	7.8	0.0 ND 2.3 "u"
1,4-Dichlorobenzene	1.3	0.0 ND 0.42 "u"	7.8	0.0 ND 2.5 "u"
alpha-Chlorotoluene	1.3	0.0 ND 0.25 "u"	6.7	0.0 ND 1.3 "u"

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223E-04A

1,2-Dichlorobenzene

1,2,4-Trichlorobenzene

Hexachlorobutadiene

1.3 0.0ND ¹¹0.42 ¹¹u"

5.2 0.0ND ¹¹2.1 ¹¹u"

5.2 0.0ND ¹¹12 ¹¹u"

7.8 0.0ND ¹¹2.5 ¹¹u"

38 0.0ND ¹¹15 ¹¹u"

55 0.0ND ¹¹13 ¹¹u"

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223E-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091508	Date of Collection:	9/7/10 9:33:00 AM	
Dil. Factor:	2.58	Date of Analysis:	9/15/10 09:31 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.58 J	6.4	2.8 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	0.0 ND 0.02 J	5.0	0.0 ND 2.4 J
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	0.43 J	7.2	2.4 J
Ethanol	5.2	6.0	9.7	11
Freon 113	1.3	0.26 J	9.9	2.0 J
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	5.5	12	13
2-Propanol	5.2	5.9	13	14
Carbon Disulfide	1.3	2.2	4.0	6.9
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	1.3	Not Detected	4.5	Not Detected
Methyl tert-butyl ether	1.3	0.13 J	4.6	0.46 J
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	0.46 J	4.5	1.6 J
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	1.1 J	3.8	3.2 J
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	0.20 J	6.3	0.97 J
1,1,1-Trichloroethane	1.3	0.21 J	7.0	1.1 J
Cyclohexane	1.3	1.8	4.4	6.3
Carbon Tetrachloride	1.3	0.19 J	8.1	1.2 J
2,2,4-Trimethylpentane	1.3	13	6.0	60
Benzene	1.3	29	4.1	93
1,2-Dichloroethane	1.3	0.28 J	5.2	1.1 J
Heptane	1.3	0.37 J	5.3	1.5 J
Trichloroethene	1.3	0.0 ND 0.38 J	6.9	0.0 ND 2.4 J
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	0.40 J	8.6	2.7 J
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	0.55 J	4.9	2.1 J
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	0.0 ND 0.19 J	8.8	0.0 ND 1.3 J

Client Sample ID: VMP-18-8.5-090710

Lab ID#: 1009223E-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091508	Date of Collection:	9/7/10 9:33:00 AM	
Dil. Factor:	2.58	Date of Analysis:	9/15/10 09:31 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.2	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	0.0 ND 0.15 u"	5.6	0.0 ND 0.06 u"
m,p-Xylene	1.3	0.22 J	5.6	0.95 J
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	0.0 ND 0.18 u"	6.3	0.0 ND 0.09 u"
1,1,2,2-Tetrachloroethane	1.3	0.0 ND 0.26 u"	8.8	0.0 ND 1.8 u"
Propylbenzene	1.3	0.0 ND 0.37 u"	6.3	0.0 ND 1.8 u"
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	0.27 u"	6.3	1.3 u"
1,3-Dichlorobenzene	1.3	0.0 ND 0.38 u"	7.8	0.0 ND 2.3 u"
1,4-Dichlorobenzene	1.3	0.0 ND 0.42 u"	7.8	0.0 ND 2.5 u"
alpha-Chlorotoluene	1.3	0.0 ND 0.25 u"	6.7	0.0 ND 1.3 u"
1,2-Dichlorobenzene	1.3	0.0 ND 0.42 u"	7.8	0.0 ND 2.5 u"
1,2,4-Trichlorobenzene	5.2	0.0 ND 2.1 u"	38	0.0 ND 1.5 u"
Hexachlorobutadiene	5.2	0.0 ND 1.2 u"	55	0.0 ND 1.8 u"

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	0-130
1,2-Dichloroethane-d4	107	0-130
4-Bromofluorobenzene	100	0-130

Client Sample ID: Lab Blank

Lab ID#: 1009223E-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091507a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 08:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	0.37 J	1.9	1.4 J
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	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	0.28 J	4.8	0.68 J
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	0.13 J	1.6	0.42 J
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	0.089 J	2.7	0.48 J
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	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	0.17 J	1.9	0.66 J
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	0.10 J	3.4	0.69 J

Client Sample ID: Lab Blank

Lab ID#: 1009223E-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091507a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/15/10 08:50 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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	0.073 J	3.8	0.56 J
Chlorobenzene	0.50	0.10 J	2.3	0.48 J
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	0.069 J	2.2	0.30 J
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	0.12 J	2.1	0.50 J
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	0.066 J	2.4	0.32 J
1,1,2,2-Tetrachloroethane	0.50	0.11 J	3.4	0.78 J
Propylbenzene	0.50	0.12 J	2.4	0.58 J
4-Ethyltoluene	0.50	0.18 J	2.4	0.90 J
1,3,5-Trimethylbenzene	0.50	0.13 J	2.4	0.64 J
1,2,4-Trimethylbenzene	0.50	0.20 J	2.4	0.96 J
1,3-Dichlorobenzene	0.50	0.33 J	3.0	2.0 J
1,4-Dichlorobenzene	0.50	0.40 J	3.0	2.4 J
alpha-Chlorotoluene	0.50	0.19 J	2.6	0.97 J
1,2-Dichlorobenzene	0.50	0.38 J	3.0	2.3 J
1,2,4-Trichlorobenzene	2.0	1.4 J	15	11 J
Hexachlorobutadiene	2.0	0.94 J	21	10 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	0-130
1,2-Dichloroethane-d4	106	0-130
4-Bromofluorobenzene	99	0-130

Client Sample ID: CCV

Lab ID#: 1009223E-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 06:43 PM

Compound	%Recovery
Freon 12	100
Freon 114	102
Chloromethane	96
Vinyl Chloride	93
1,3-Butadiene	92
Bromomethane	105
Chloroethane	94
Freon 11	104
Ethanol	90
Freon 113	103
1,1-Dichloroethene	96
Acetone	87
2-Propanol	97
Carbon Disulfide	98
3-Chloropropene	99
Methylene Chloride	96
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	98
Hexane	101
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	98
Tetrahydrofuran	98
Chloroform	100
1,1,1-Trichloroethane	105
Cyclohexane	104
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	104
Benzene	98
1,2-Dichloroethane	107
Heptane	103
Trichloroethene	104
1,2-Dichloropropane	99
1,4-Dioxane	102
Bromodichloromethane	102
cis-1,3-Dichloropropene	105
4-Methyl-2-pentanone	97
Toluene	98
trans-1,3-Dichloropropene	109
1,1,2-Trichloroethane	101
Tetrachloroethene	106

Client Sample ID: CCV

Lab ID#: 1009223E-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 06:43 PM

Compound	%Recovery
2-Hexanone	99
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	103
Chlorobenzene	101
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	106
Styrene	107
Bromoform	108
Cumene	115
1,1,2,2-Tetrachloroethane	99
Propylbenzene	114
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1009223E-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 07:22 PM

Compound	%Recovery
Freon 12	106
Freon 114	107
Chloromethane	102
Vinyl Chloride	97
1,3-Butadiene	99
Bromomethane	110
Chloroethane	98
Freon 11	109
Ethanol	88
Freon 113	97
1,1-Dichloroethene	92
Acetone	88
2-Propanol	102
Carbon Disulfide	100
3-Chloropropene	104
Methylene Chloride	94
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	103
Hexane	105
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	98
Tetrahydrofuran	103
Chloroform	102
1,1,1-Trichloroethane	110
Cyclohexane	109
Carbon Tetrachloride	112
2,2,4-Trimethylpentane	109
Benzene	103
1,2-Dichloroethane	112
Heptane	108
Trichloroethene	110
1,2-Dichloropropane	103
1,4-Dioxane	108
Bromodichloromethane	110
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	105
Toluene	103
trans-1,3-Dichloropropene	114
1,1,2-Trichloroethane	107
Tetrachloroethene	111

Client Sample ID: LCS

Lab ID#: 1009223E-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091504	Date of Collection: NA
DIL. Factor:	1.00	Date of Analysis: 9/15/10 07:22 PM

Compound	%Recovery
2-Hexanone	106
Dibromochloromethane	114
1,2-Dibromoethane (EDB)	114
Chlorobenzene	109
Ethyl Benzene	112
m,p-Xylene	116
o-Xylene	115
Styrene	116
Bromoform	114
Cumene	122
1,1,2,2-Tetrachloroethane	112
Propylbenzene	123
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	128
1,2,4-Trimethylbenzene	126
1,3-Dichlorobenzene	118
1,4-Dichlorobenzene	120
alpha-Chlorotoluene	134 Q
1,2-Dichlorobenzene	122
1,2,4-Trichlorobenzene	123
Hexachlorobutadiene	125

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: LCSD

Lab ID#: 1009223E-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 08:12 PM

Compound	%Recovery
Freon 12	103
Freon 114	107
Chloromethane	98
Vinyl Chloride	98
1,3-Butadiene	100
Bromomethane	111
Chloroethane	96
Freon 11	103
Ethanol	86
Freon 113	94
1,1-Dichloroethene	90
Acetone	87
2-Propanol	97
Carbon Disulfide	98
3-Chloropropene	103
Methylene Chloride	89
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	102
Hexane	105
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	97
cis-1,2-Dichloroethene	98
Tetrahydrofuran	99
Chloroform	97
1,1,1-Trichloroethane	103
Cyclohexane	103
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	104
Benzene	98
1,2-Dichloroethane	106
Heptane	105
Trichloroethene	104
1,2-Dichloropropane	97
1,4-Dioxane	101
Bromodichloromethane	103
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	99
Toluene	96
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	106
Tetrachloroethene	109

Client Sample ID: LCSD

Lab ID#: 1009223E-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6091505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/15/10 08:12 PM

Compound	%Recovery
2-Hexanone	103
Dibromochloromethane	113
1,2-Dibromoethane (EDB)	111
Chlorobenzene	105
Ethyl Benzene	110
m,p-Xylene	112
o-Xylene	111
Styrene	112
Bromoform	112
Cumene	117
1,1,2,2-Tetrachloroethane	105
Propylbenzene	117
4-Ethyltoluene	110
1,3,5-Trimethylbenzene	117
1,2,4-Trimethylbenzene	120
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	114
alpha-Chlorotoluene	129
1,2-Dichlorobenzene	114
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	116

Container Type: NA - Not Applicable

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



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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(916) 985-1000 FAX (916) 985-1020

Page 1 of 3

Project Manager Self Adams
Collected by: (Print and Sign) Kelly Adams
Company UPS Corporation Email florus.adams@usps.com
Address 1001 Highway 101 City San Jose State CA Zip 95128
Phone 408-299-0100 Fax 408-299-0462

Project Info:
P.O. # _____
Project # Perma Pesticide Plus
Project Name _____
Turn Around Time:
☒ Normal
☐ Rush
Specify _____
Lab Use Only:
Pressurized by _____
Date _____
Pressurization Gas _____
No. _____

Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum
VMP-5-5-090910	2692	09/09/10	09:27/09:53	Multi-Elemental D-916 HPL	Initial Final
VMP-3-31.5-090910	5815	09/09/10	14:16/14:52	"	29 8.5
VMP-11-8-090810	2716	09/08/10	09:26/10:08	"	29 3
VMP-18-8.5-090710	3402	09/07/10	08:58/09:33	"	30 7
VMP-8-12.5-090910	1938	09/09/10	10:35/11:06	"	30 7
VMP-3-5-090910	1156	09/07/10	13:21/13:44	"	30 8
VMP-5-31-090910	744	09/09/10	11:41/12:11	"	30 2.5
VMP-10-10-090710	3263	09/07/10	11:41/12:14	"	29.5 4
VMP-6-31.5-090810	3822	09/08/10	15:11/15:41	"	30 7.5
VMP-10-5-090710	5164	09/07/10	10:29/11:03	"	30 6
					30 7.5

Relinquished by: (signature) [Signature] Date/Time 9/9/10 1:500
Relinquished by: (signature) [Signature] Date/Time _____
Relinquished by: (signature) [Signature] Date/Time _____
Notes:
- 14 day hold time
- Report results between MPL and PL
- 2 anal. IV EAP
Received by: (signature) [Signature] Date/Time 9/10/10
Received by: (signature) [Signature] Date/Time _____
Received by: (signature) [Signature] Date/Time _____
Lab: Red by Shipper Name: NA Condition: Good Custody Seal: Intact Work Order #: 1000223

Roxana Vapor Data Review

Laboratory SDG: 1009302

Reviewer: Elizabeth Kunkel

Date Reviewed: 9/30/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-13-10.5-091310	VMP-13-10.5-091310-Dup
VMP-13-21.5-091310	VMP-13-5-091310
VMP-3-22-091010	VMP-14-5-091010
VMP-14-11.5-091010	VMP-14-20-091010
VMP-14-20-091010-Dup	VMP-15-5-091410
VMP-15-21.5-091410	VMP-15-25.5-091410

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

COC designated sample ID, VMP-3-22-091010, is an incorrect sample ID due to a transcription error in the field. The correct sample ID is VMP-3-10-091010. Results were reported using the correct sample ID.

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that samples VMP-3-22-091010, VMP-14-5-091010, VMP-14-11.5-091010, and VMP-15-21.5-091410 were diluted due to high levels of non-target analytes. Additionally, TO-15 analytes and natural gases were detected in the method blank. TO-15 LCS/LCSD recoveries were outside evaluation criteria. The compound, hexane was qualified in field duplicate pair, VMP-13-10.5-091310/VMP-13-10.5-091310-Dup due to field duplicate RPD outside evaluation criteria. These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1009302-13B	TO-15	Bromomethane	0.17 ppbv/0.66 µg/m ³
1009302-13B	TO-15	Carbon disulfide	0.25 ppbv/0.77 µg/m ³
1009302A-13D	TO-15	Methylene chloride	4.2 ppbv/15 µg/m ³
1009302A-13D	TO-15	Benzene	1.5 ppbv/4.9 µg/m ³
1009302B-13A	Natural gases	Oxygen	0.0097%
1009302B-13A	Natural gases	Nitrogen	0.051%
1009302B-13B	Natural gases	Helium	0.0053%

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-15-5-091410	TO-15	Bromomethane	-	U
VMP-15-5-091410	TO-15	Carbon disulfide	-	U
VMP-15-25.5-091410	TO-15	Carbon disulfide	-	U
VMP-15-5-091410	Natural gases	Helium	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
1009302A-15A/ 1009302A-15AA	TO-15	1,2,4- Trichlorobenzene	125/138	10	70-130/25
1009302A-15A/ 1009302A-15AA	TO-15	Hexachlorobutadiene	126/137	8	70-130/25
1009302A-15C/ 1009302A-15CC	TO-15	Hexachlorobutadiene	132/117	8	70-130/25
1009302A-15D/ 1009302A-15DD	TO-15	1,2,4- Trichlorobenzene	114/131	14	70-130/25
1009302A-15D/ 1009302A-15DD	TO-15	Hexachlorobutadiene	128/148	14	70-130/25

Analytical data reported as nondetect and associated with LCS recoveries above evaluation criteria indicating a possible high bias did not require qualification. No qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
VMP-13-10.5-091310	VMP-13-10.5-091310-Dup
VMP-14-20-091010	VMP-14-20-091010-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
VMP-13-10.5-091310	VMP-13-10.5-091310-Dup	TO-15	Hexane	41	J

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

9/28/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxan Dissolved Phase
Project #:
Workorder #: 1009302A

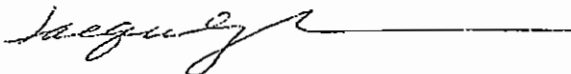
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/15/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on

9/30/2010

WORK ORDER #: 1009302A

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxan Dissolved Phase
DATE RECEIVED:	09/15/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/27/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP 13-10.5-091310 ✓	Modified TO-15	5.5 "Hg	15 psi
02A	VMP 13-10.5-091310-Dup ✓	Modified TO-15	4.5 "Hg	15 psi
03A	VMP 13-21.5-091310 ✓	Modified TO-15	5.0 "Hg	15 psi
04A	VMP 13-5-091310 ✓	Modified TO-15	7.0 "Hg	15 psi
05A	VMP 3-22-091010 ✓	Modified TO-15	4.5 "Hg	15 psi
06A	VMP 14-5-091010 ✓	Modified TO-15	5.5 "Hg	15 psi
07A	VMP 14-11.5-091010 ✓	Modified TO-15	3.5 "Hg	15 psi
08A	VMP 14-20-091010 ✓	Modified TO-15	4.0 "Hg	15 psi
09A	VMP 14-20-091010-Dup ✓	Modified TO-15	5.0 "Hg	15 psi
10A	VMP 15-5-091410 ✓	Modified TO-15	6.0 "Hg	15 psi
11A	VMP 15-21.5-091410 ✓	Modified TO-15	5.5 "Hg	15 psi
12A	VMP 15-25.5-091410 ✓	Modified TO-15	6.5 "Hg	15 psi
13A	Lab Blank	Modified TO-15	NA	NA
13B	Lab Blank	Modified TO-15	NA	NA
13C	Lab Blank	Modified TO-15	NA	NA
13D	Lab Blank	Modified TO-15	NA	NA
14A	CCV	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1009302A

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxan Dissolved Phase
DATE RECEIVED:	09/15/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/27/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
14B	CCV	Modified TO-15	NA	NA
14C	CCV	Modified TO-15	NA	NA
14D	CCV	Modified TO-15	NA	NA
15A	LCS	Modified TO-15	NA	NA
15AA	LCSD	Modified TO-15	NA	NA
15B	LCS	Modified TO-15	NA	NA
15BB	LCSD	Modified TO-15	NA	NA
15C	LCS	Modified TO-15	NA	NA
15CC	LCSD	Modified TO-15	NA	NA
15D	LCS	Modified TO-15	NA	NA
15DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:

Sandra A. Freeman

Laboratory Director

DATE: 09/28/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15 Std & Soil Gas
URS Corporation
Workorder# 1009302A**

Twelve 1 Liter Summa Canister samples were received on September 15, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	+/- 30% Difference	<= 30% Difference with two allowed out up to <=40%; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Dilution was performed on samples VMP 3-22-091010, VMP 14-5-091010, VMP 14-11.5-091010

and VMP 15-21.5-091410 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP 13-10.5-091310

Lab ID#: 1009302A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.3	0.64 J	16	3.2 J
Acetone	13	7.4 J	31	17 J
2-Propanol	13	5.2 J	32	13 J
Carbon Disulfide	3.3	1.8 J	10	5.6 J
Hexane	3.3	7.9 "J"	11	28 "J"
Cyclohexane	3.3	4.2	11	14
2,2,4-Trimethylpentane	3.3	81	15	380
Benzene	3.3	1000	10	3300
Heptane	3.3	1.3 J	13	5.2 J
Toluene	3.3	2.0 J	12	7.5 J
Tetrachloroethene	3.3	1.1 J	22	7.3 J

Client Sample ID: VMP 13-10.5-091310-Dup

Lab ID#: 1009302A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.2	0.68 J	16	3.4 J
Ethanol	13	7.2 J	24	14 J
Acetone	13	29	30	70
2-Propanol	13	5.1 J	31	12 J
Carbon Disulfide	3.2	6.3	9.9	20
Hexane	3.2	12 "J"	11	43 "J"
2-Butanone (Methyl Ethyl Ketone)	3.2	1.2 J	9.4	3.6 J
Cyclohexane	3.2	4.4	11	15
2,2,4-Trimethylpentane	3.2	86	15	400
Benzene	3.2	1000	10	3400
Heptane	3.2	1.8 J	13	7.2 J
1,4-Dioxane	13	11 J	46	41 J
Toluene	3.2	2.0 J	12	7.4 J
Tetrachloroethene	3.2	0.50 J	22	3.4 J
m,p-Xylene	3.2	0.58 J	14	2.5 J

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP 13-21.5-091310

Lab ID#: 1009302A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	2400	2600	8400	9200
Hexane	2400	600 J	8500	2100 J
Cyclohexane	2400	720 J	8300	2500 J
2,2,4-Trimethylpentane	2400	9200	11000	43000
Benzene	2400	1800000	7700	5800000
Toluene	2400	980 J	9100	3700 J

Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	35	120	66	240
Acetone	35	13 J	84	32 J
Carbon Disulfide	8.8	5.8 J	27	18 J
Hexane	8.8	4.3 J	31	15 J
2-Butanone (Methyl Ethyl Ketone)	8.8	1.9 J	26	5.5 J
Cyclohexane	8.8	4.2 J	30	14 J
2,2,4-Trimethylpentane	8.8	16	41	73
Benzene	8.8	2800	28	9000
Heptane	8.8	2.3 J	36	9.4 J
Toluene	8.8	6.7 J	33	25 J
m,p-Xylene	8.8	1.5 J	38	6.4 J

Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	17000	3700 J	40000	8900 J
Hexane	4200	300000	15000	1100000
Cyclohexane	4200	280000	15000	970000
2,2,4-Trimethylpentane	4200	640000	20000	3000000

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302A-05A

Benzene	4200	4400	14000	14000
Heptane	4200	21000	17000	87000
Cumene	4200	1000 J	21000	5000 J
Propylbenzene	4200	1500 J	21000	7200 J

Client Sample ID: VMP 14-5-091010

Lab ID#: 1009302A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	62	160	220	550
Cyclohexane	62	250	210	850
2,2,4-Trimethylpentane	62	4000	290	19000
Benzene	62	220	200	710

Client Sample ID: VMP 14-11.5-091010

Lab ID#: 1009302A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	960	1300	3400	4600
Cyclohexane	960	40000	3300	140000
2,2,4-Trimethylpentane	960	50000	4500	230000
Benzene	960	16000	3000	52000
Cumene	960	200 J	4700	970 J

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	14000	5300 J	50000	18000 J
Hexane	14000	200000	51000	700000
Cyclohexane	14000	72000	50000	250000
2,2,4-Trimethylpentane	14000	54000	68000	250000
Benzene	14000	12000000	46000	37000000

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302A-08A

Heptane	14000	24000	60000	100000
Cumene	14000	1300 J	72000	6400 J

Client Sample ID: VMP 14-20-091010-Dup

Lab ID#: 1009302A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	15000	210000	53000	750000
Cyclohexane	15000	69000	52000	240000
2,2,4-Trimethylpentane	15000	52000	70000	240000
Benzene	15000	11000000	48000	35000000
Heptane	15000	24000	62000	98000

Client Sample ID: VMP 15-5-091410

Lab ID#: 1009302A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.2	2.0 J
Bromomethane	1.3	O.C ND 0.69 J "	4.9	O.C ND 2.7 J "
Ethanol	5.0	4.0 J	9.5	7.6 J
Acetone	5.0	6.3	12	15
2-Propanol	5.0	7.3	12	18
Carbon Disulfide	1.3	O.C ND 0.91 J "	3.9	O.C ND 2.8 J "
Methylene Chloride	1.3	0.29 J	4.4	1.0 J
Hexane	1.3	6.2	4.4	22
2-Butanone (Methyl Ethyl Ketone)	1.3	0.34 J	3.7	1.0 J
Chloroform	1.3	0.26 J	6.2	1.3 J
Cyclohexane	1.3	1.4	4.3	4.8
2,2,4-Trimethylpentane	1.3	6.1	5.9	28
Benzene	1.3	190	4.0	610
Heptane	1.3	1.4	5.2	5.9
Toluene	1.3	0.48 J	4.7	1.8 J
Tetrachloroethene	1.3	0.24 J	8.5	1.6 J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VMP 15-5-091410

Lab ID#: 1009302A-10A

m,p-Xylene	1.3	0.26 J	5.5	1.1 J

Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	140	1100	470	4000
2,2,4-Trimethylpentane	140	65000	640	300000
Benzene	140	190	440	610

Client Sample ID: VMP 15-25.5-091410

Lab ID#: 1009302A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.4	2.0 J
Freon 11	1.3	0.19 J	7.2	1.0 J
Ethanol	5.2	2.8 J	9.7	5.3 J
Acetone	5.2	5.6	12	13
2-Propanol	5.2	1.7 J	13	4.1 J
Carbon Disulfide	1.3	0.91 J	4.0	2.8 J
Methylene Chloride	1.3	0.75 J	4.5	2.6 J
Hexane	1.3	3.0	4.5	11
2-Butanone (Methyl Ethyl Ketone)	1.3	0.50 J	3.8	1.5 J
Tetrahydrofuran	1.3	1.1 J	3.8	3.3 J
Chloroform	1.3	0.48 J	6.3	2.3 J
Cyclohexane	1.3	24	4.4	84
2,2,4-Trimethylpentane	1.3	37	6.0	170
Benzene	1.3	95	4.1	300
Heptane	1.3	0.95 J	5.3	3.9 J
Toluene	1.3	0.29 J	4.9	1.1 J

Client Sample ID: VMP 13-10.5-091310

Lab ID#: 1009302A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092129	Date of Collection: 9/13/10 10:53:00 AM
Dil. Factor:	6.52	Date of Analysis: 9/21/10 07:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.3	0.64 J	16	3.2 J
Freon 114	3.3	Not Detected	23	Not Detected
Chloromethane	13	Not Detected	27	Not Detected
Vinyl Chloride	3.3	Not Detected	8.3	Not Detected
1,3-Butadiene	3.3	Not Detected	7.2	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
Freon 11	3.3	Not Detected	18	Not Detected
Ethanol	13	Not Detected	24	Not Detected
Freon 113	3.3	Not Detected	25	Not Detected
1,1-Dichloroethene	3.3	Not Detected	13	Not Detected
Acetone	13	7.4 J	31	17 J
2-Propanol	13	5.2 J	32	13 J
Carbon Disulfide	3.3	1.8 J	10	5.6 J
3-Chloropropene	13	Not Detected	41	Not Detected
Methylene Chloride	3.3	Not Detected	11	Not Detected
Methyl tert-butyl ether	3.3	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected
Hexane	3.3	7.9 J	11	28 J
1,1-Dichloroethane	3.3	Not Detected	13	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.6	Not Detected
cis-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.6	Not Detected
Chloroform	3.3	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.3	Not Detected	18	Not Detected
Cyclohexane	3.3	4.2	11	14
Carbon Tetrachloride	3.3	Not Detected	20	Not Detected
2,2,4-Trimethylpentane	3.3	81	15	380
Benzene	3.3	1000	10	3300
1,2-Dichloroethane	3.3	Not Detected	13	Not Detected
Heptane	3.3	1.3 J	13	5.2 J
Trichloroethene	3.3	Not Detected	18	Not Detected
1,2-Dichloropropane	3.3	Not Detected	15	Not Detected
1,4-Dioxane	13	Not Detected	47	Not Detected
Bromodichloromethane	3.3	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	3.3	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.3	Not Detected	13	Not Detected
Toluene	3.3	2.0 J	12	7.5 J
trans-1,3-Dichloropropene	3.3	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.3	Not Detected	18	Not Detected
Tetrachloroethene	3.3	1.1 J	22	7.3 J

Client Sample ID: VMP 13-10.5-091310

Lab ID#: 1009302A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092129	Date of Collection:	9/13/10 10:53:00 AM
Dil. Factor:	6.52	Date of Analysis:	9/21/10 07:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	13	Not Detected	53	Not Detected
Dibromochloromethane	3.3	Not Detected	28	Not Detected
1,2-Dibromoethane (EDB)	3.3	Not Detected	25	Not Detected
Chlorobenzene	3.3	Not Detected	15	Not Detected
Ethyl Benzene	3.3	Not Detected	14	Not Detected
m,p-Xylene	3.3	Not Detected	14	Not Detected
o-Xylene	3.3	Not Detected	14	Not Detected
Styrene	3.3	Not Detected	14	Not Detected
Bromoform	3.3	Not Detected	34	Not Detected
Cumene	3.3	Not Detected	16	Not Detected
1,1,2,2-Tetrachloroethane	3.3	Not Detected	22	Not Detected
Propylbenzene	3.3	Not Detected	16	Not Detected
4-Ethyltoluene	3.3	Not Detected	16	Not Detected
1,3,5-Trimethylbenzene	3.3	Not Detected	16	Not Detected
1,2,4-Trimethylbenzene	3.3	Not Detected	16	Not Detected
1,3-Dichlorobenzene	3.3	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.3	Not Detected	20	Not Detected
alpha-Chlorotoluene	3.3	Not Detected	17	Not Detected
1,2-Dichlorobenzene	3.3	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	13	Not Detected	97	Not Detected
Hexachlorobutadiene	13	Not Detected	140	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VMP 13-10.5-091310-Dup

Lab ID#: 1009302A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092130	Date of Collection:	9/13/10 10:53:00 AM	
Dil. Factor:	6.35	Date of Analysis:	9/21/10 07:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.2	0.68 J	16	3.4 J
Freon 114	3.2	Not Detected	22	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	3.2	Not Detected	8.1	Not Detected
1,3-Butadiene	3.2	Not Detected	7.0	Not Detected
Bromomethane	3.2	Not Detected	12	Not Detected
Chloroethane	3.2	Not Detected	8.4	Not Detected
Freon 11	3.2	Not Detected	18	Not Detected
Ethanol	13	7.2 J	24	14 J
Freon 113	3.2	Not Detected	24	Not Detected
1,1-Dichloroethene	3.2	Not Detected	12	Not Detected
Acetone	13	29	30	70
2-Propanol	13	5.1 J	31	12 J
Carbon Disulfide	3.2	6.3	9.9	20
3-Chloropropene	13	Not Detected	40	Not Detected
Methylene Chloride	3.2	Not Detected	11	Not Detected
Methyl tert-butyl ether	3.2	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	3.2	Not Detected	12	Not Detected
Hexane	3.2	12 "J"	11	43 "J"
1,1-Dichloroethane	3.2	Not Detected	13	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	1.2 J	9.4	3.6 J
cis-1,2-Dichloroethene	3.2	Not Detected	12	Not Detected
Tetrahydrofuran	3.2	Not Detected	9.4	Not Detected
Chloroform	3.2	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.2	Not Detected	17	Not Detected
Cyclohexane	3.2	4.4	11	15
Carbon Tetrachloride	3.2	Not Detected	20	Not Detected
2,2,4-Trimethylpentane	3.2	86	15	400
Benzene	3.2	1000	10	3400
1,2-Dichloroethane	3.2	Not Detected	13	Not Detected
Heptane	3.2	1.8 J	13	7.2 J
Trichloroethene	3.2	Not Detected	17	Not Detected
1,2-Dichloropropane	3.2	Not Detected	15	Not Detected
1,4-Dioxane	13	11 J	46	41 J
Bromodichloromethane	3.2	Not Detected	21	Not Detected
cis-1,3-Dichloropropene	3.2	Not Detected	14	Not Detected
4-Methyl-2-pentanone	3.2	Not Detected	13	Not Detected
Toluene	3.2	2.0 J	12	7.4 J
trans-1,3-Dichloropropene	3.2	Not Detected	14	Not Detected
1,1,2-Trichloroethane	3.2	Not Detected	17	Not Detected
Tetrachloroethene	3.2	0.50 J	22	3.4 J

Client Sample ID: VMP 13-10.5-091310-Dup

Lab ID#: 1009302A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092130	Date of Collection:	9/13/10 10:53:00 AM	
Dil. Factor:	6.35	Date of Analysis:	9/21/10 07:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	13	Not Detected	52	Not Detected
Dibromochloromethane	3.2	Not Detected	27	Not Detected
1,2-Dibromoethane (EDB)	3.2	Not Detected	24	Not Detected
Chlorobenzene	3.2	Not Detected	15	Not Detected
Ethyl Benzene	3.2	Not Detected	14	Not Detected
m,p-Xylene	3.2	0.58 J	14	2.5 J
o-Xylene	3.2	Not Detected	14	Not Detected
Styrene	3.2	Not Detected	14	Not Detected
Bromoform	3.2	Not Detected	33	Not Detected
Cumene	3.2	Not Detected	16	Not Detected
1,1,2,2-Tetrachloroethane	3.2	Not Detected	22	Not Detected
Propylbenzene	3.2	Not Detected	16	Not Detected
4-Ethyltoluene	3.2	Not Detected	16	Not Detected
1,3,5-Trimethylbenzene	3.2	Not Detected	16	Not Detected
1,2,4-Trimethylbenzene	3.2	Not Detected	16	Not Detected
1,3-Dichlorobenzene	3.2	Not Detected	19	Not Detected
1,4-Dichlorobenzene	3.2	Not Detected	19	Not Detected
alpha-Chlorotoluene	3.2	Not Detected	16	Not Detected
1,2-Dichlorobenzene	3.2	Not Detected	19	Not Detected
1,2,4-Trichlorobenzene	13	Not Detected	94	Not Detected
Hexachlorobutadiene	13	Not Detected	140	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: VMP 13-21.5-091310

Lab ID#: 1009302A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092410	Date of Collection: 9/13/10 12:32:00 PM		
Dil. Factor:	484	Date of Analysis: 9/24/10 12:39 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2400	Not Detected	12000	Not Detected
Freon 114	2400	Not Detected	17000	Not Detected
Chloromethane	9700	Not Detected	20000	Not Detected
Vinyl Chloride	2400	Not Detected	6200	Not Detected
1,3-Butadiene	2400	Not Detected	5400	Not Detected
Bromomethane	2400	Not Detected	9400	Not Detected
Chloroethane	2400	Not Detected	6400	Not Detected
Freon 11	2400	Not Detected	14000	Not Detected
Ethanol	9700	Not Detected	18000	Not Detected
Freon 113	2400	Not Detected	18000	Not Detected
1,1-Dichloroethene	2400	Not Detected	9600	Not Detected
Acetone	9700	Not Detected	23000	Not Detected
2-Propanol	9700	Not Detected	24000	Not Detected
Carbon Disulfide	2400	Not Detected	7500	Not Detected
3-Chloropropene	9700	Not Detected	30000	Not Detected
Methylene Chloride	2400	2600	8400	9200
Methyl tert-butyl ether	2400	Not Detected	8700	Not Detected
trans-1,2-Dichloroethene	2400	Not Detected	9600	Not Detected
Hexane	2400	600 J	8500	2100 J
1,1-Dichloroethane	2400	Not Detected	9800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2400	Not Detected	7100	Not Detected
cis-1,2-Dichloroethene	2400	Not Detected	9600	Not Detected
Tetrahydrofuran	2400	Not Detected	7100	Not Detected
Chloroform	2400	Not Detected	12000	Not Detected
1,1,1-Trichloroethane	2400	Not Detected	13000	Not Detected
Cyclohexane	2400	720 J	8300	2500 J
Carbon Tetrachloride	2400	Not Detected	15000	Not Detected
2,2,4-Trimethylpentane	2400	9200	11000	43000
Benzene	2400	1800000	7700	5800000
1,2-Dichloroethane	2400	Not Detected	9800	Not Detected
Heptane	2400	Not Detected	9900	Not Detected
Trichloroethene	2400	Not Detected	13000	Not Detected
1,2-Dichloropropane	2400	Not Detected	11000	Not Detected
1,4-Dioxane	9700	Not Detected	35000	Not Detected
Bromodichloromethane	2400	Not Detected	16000	Not Detected
cis-1,3-Dichloropropene	2400	Not Detected	11000	Not Detected
4-Methyl-2-pentanone	2400	Not Detected	9900	Not Detected
Toluene	2400	980 J	9100	3700 J
trans-1,3-Dichloropropene	2400	Not Detected	11000	Not Detected
1,1,2-Trichloroethane	2400	Not Detected	13000	Not Detected
Tetrachloroethene	2400	Not Detected	16000	Not Detected

Client Sample ID: VMP 13-21.5-091310

Lab ID#: 1009302A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092410	Date of Collection:	9/13/10 12:32:00 PM	
Dil. Factor:	484	Date of Analysis:	9/24/10 12:39 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	9700	Not Detected	40000	Not Detected
Dibromochloromethane	2400	Not Detected	21000	Not Detected
1,2-Dibromoethane (EDB)	2400	Not Detected	18000	Not Detected
Chlorobenzene	2400	Not Detected	11000	Not Detected
Ethyl Benzene	2400	Not Detected	10000	Not Detected
m,p-Xylene	2400	Not Detected	10000	Not Detected
o-Xylene	2400	Not Detected	10000	Not Detected
Styrene	2400	Not Detected	10000	Not Detected
Bromoform	2400	Not Detected	25000	Not Detected
Cumene	2400	Not Detected	12000	Not Detected
1,1,2,2-Tetrachloroethane	2400	Not Detected	17000	Not Detected
Propylbenzene	2400	Not Detected	12000	Not Detected
4-Ethyltoluene	2400	Not Detected	12000	Not Detected
1,3,5-Trimethylbenzene	2400	Not Detected	12000	Not Detected
1,2,4-Trimethylbenzene	2400	Not Detected	12000	Not Detected
1,3-Dichlorobenzene	2400	Not Detected	14000	Not Detected
1,4-Dichlorobenzene	2400	Not Detected	14000	Not Detected
alpha-Chlorotoluene	2400	Not Detected	12000	Not Detected
1,2-Dichlorobenzene	2400	Not Detected	14000	Not Detected
1,2,4-Trichlorobenzene	9700	Not Detected	72000	Not Detected
Hexachlorobutadiene	9700	Not Detected	100000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092126	Date of Collection: 9/13/10 9:47:00 AM
Dil. Factor:	17.6	Date of Analysis: 9/21/10 06:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	8.8	Not Detected	44	Not Detected
Freon 114	8.8	Not Detected	62	Not Detected
Chloromethane	35	Not Detected	73	Not Detected
Vinyl Chloride	8.8	Not Detected	22	Not Detected
1,3-Butadiene	8.8	Not Detected	19	Not Detected
Bromomethane	8.8	Not Detected	34	Not Detected
Chloroethane	8.8	Not Detected	23	Not Detected
Freon 11	8.8	Not Detected	49	Not Detected
Ethanol	35	120	66	240
Freon 113	8.8	Not Detected	67	Not Detected
1,1-Dichloroethene	8.8	Not Detected	35	Not Detected
Acetone	35	13 J	84	32 J
2-Propanol	35	Not Detected	86	Not Detected
Carbon Disulfide	8.8	5.8 J	27	18 J
3-Chloropropene	35	Not Detected	110	Not Detected
Methylene Chloride	8.8	Not Detected	30	Not Detected
Methyl tert-butyl ether	8.8	Not Detected	32	Not Detected
trans-1,2-Dichloroethene	8.8	Not Detected	35	Not Detected
Hexane	8.8	4.3 J	31	15 J
1,1-Dichloroethane	8.8	Not Detected	36	Not Detected
2-Butanone (Methyl Ethyl Ketone)	8.8	1.9 J	26	5.5 J
cis-1,2-Dichloroethene	8.8	Not Detected	35	Not Detected
Tetrahydrofuran	8.8	Not Detected	26	Not Detected
Chloroform	8.8	Not Detected	43	Not Detected
1,1,1-Trichloroethane	8.8	Not Detected	48	Not Detected
Cyclohexane	8.8	4.2 J	30	14 J
Carbon Tetrachloride	8.8	Not Detected	55	Not Detected
2,2,4-Trimethylpentane	8.8	16	41	73
Benzene	8.8	2800	28	9000
1,2-Dichloroethane	8.8	Not Detected	36	Not Detected
Heptane	8.8	2.3 J	36	9.4 J
Trichloroethene	8.8	Not Detected	47	Not Detected
1,2-Dichloropropane	8.8	Not Detected	41	Not Detected
1,4-Dioxane	35	Not Detected	130	Not Detected
Bromodichloromethane	8.8	Not Detected	59	Not Detected
cis-1,3-Dichloropropene	8.8	Not Detected	40	Not Detected
4-Methyl-2-pentanone	8.8	Not Detected	36	Not Detected
Toluene	8.8	6.7 J	33	25 J
trans-1,3-Dichloropropene	8.8	Not Detected	40	Not Detected
1,1,2-Trichloroethane	8.8	Not Detected	48	Not Detected
Tetrachloroethene	8.8	Not Detected	60	Not Detected

Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092126	Date of Collection: 9/13/10 9:47:00 AM
Dil. Factor:	17.6	Date of Analysis: 9/21/10 06:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	35	Not Detected	140	Not Detected
Dibromochloromethane	8.8	Not Detected	75	Not Detected
1,2-Dibromoethane (EDB)	8.8	Not Detected	68	Not Detected
Chlorobenzene	8.8	Not Detected	40	Not Detected
Ethyl Benzene	8.8	Not Detected	38	Not Detected
m,p-Xylene	8.8	1.5 J	38	6.4 J
o-Xylene	8.8	Not Detected	38	Not Detected
Styrene	8.8	Not Detected	37	Not Detected
Bromoform	8.8	Not Detected	91	Not Detected
Cumene	8.8	Not Detected	43	Not Detected
1,1,2,2-Tetrachloroethane	8.8	Not Detected	60	Not Detected
Propylbenzene	8.8	Not Detected	43	Not Detected
4-Ethyltoluene	8.8	Not Detected	43	Not Detected
1,3,5-Trimethylbenzene	8.8	Not Detected	43	Not Detected
1,2,4-Trimethylbenzene	8.8	Not Detected	43	Not Detected
1,3-Dichlorobenzene	8.8	Not Detected	53	Not Detected
1,4-Dichlorobenzene	8.8	Not Detected	53	Not Detected
alpha-Chlorotoluene	8.8	Not Detected	46	Not Detected
1,2-Dichlorobenzene	8.8	Not Detected	53	Not Detected
1,2,4-Trichlorobenzene	35	Not Detected	260	Not Detected
Hexachlorobutadiene	35	Not Detected	380	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	116	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092412	Date of Collection: 9/10/10 11:52:00 AM		
Dil. Factor:	850	Date of Analysis: 9/24/10 02:36 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4200	Not Detected	21000	Not Detected
Freon 114	4200	Not Detected	30000	Not Detected
Chloromethane	17000	Not Detected	35000	Not Detected
Vinyl Chloride	4200	Not Detected	11000	Not Detected
1,3-Butadiene	4200	Not Detected	9400	Not Detected
Bromomethane	4200	Not Detected	16000	Not Detected
Chloroethane	4200	Not Detected	11000	Not Detected
Freon 11	4200	Not Detected	24000	Not Detected
Ethanol	17000	Not Detected	32000	Not Detected
Freon 113	4200	Not Detected	32000	Not Detected
1,1-Dichloroethene	4200	Not Detected	17000	Not Detected
Acetone	17000	3700 J	40000	8900 J
2-Propanol	17000	Not Detected	42000	Not Detected
Carbon Disulfide	4200	Not Detected	13000	Not Detected
3-Chloropropene	17000	Not Detected	53000	Not Detected
Methylene Chloride	4200	Not Detected	15000	Not Detected
Methyl tert-butyl ether	4200	Not Detected	15000	Not Detected
trans-1,2-Dichloroethene	4200	Not Detected	17000	Not Detected
Hexane	4200	300000	15000	1100000
1,1-Dichloroethane	4200	Not Detected	17000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4200	Not Detected	12000	Not Detected
cis-1,2-Dichloroethene	4200	Not Detected	17000	Not Detected
Tetrahydrofuran	4200	Not Detected	12000	Not Detected
Chloroform	4200	Not Detected	21000	Not Detected
1,1,1-Trichloroethane	4200	Not Detected	23000	Not Detected
Cyclohexane	4200	280000	15000	970000
Carbon Tetrachloride	4200	Not Detected	27000	Not Detected
2,2,4-Trimethylpentane	4200	640000	20000	3000000
Benzene	4200	4400	14000	14000
1,2-Dichloroethane	4200	Not Detected	17000	Not Detected
Heptane	4200	21000	17000	87000
Trichloroethene	4200	Not Detected	23000	Not Detected
1,2-Dichloropropane	4200	Not Detected	20000	Not Detected
1,4-Dioxane	17000	Not Detected	61000	Not Detected
Bromodichloromethane	4200	Not Detected	28000	Not Detected
cis-1,3-Dichloropropene	4200	Not Detected	19000	Not Detected
4-Methyl-2-pentanone	4200	Not Detected	17000	Not Detected
Toluene	4200	Not Detected	16000	Not Detected
trans-1,3-Dichloropropene	4200	Not Detected	19000	Not Detected
1,1,2-Trichloroethane	4200	Not Detected	23000	Not Detected
Tetrachloroethene	4200	Not Detected	29000	Not Detected

Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092412	Date of Collection: 9/10/10 11:52:00 AM
Dil. Factor:	850	Date of Analysis: 9/24/10 02:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	17000	Not Detected	70000	Not Detected
Dibromochloromethane	4200	Not Detected	36000	Not Detected
1,2-Dibromoethane (EDB)	4200	Not Detected	33000	Not Detected
Chlorobenzene	4200	Not Detected	20000	Not Detected
Ethyl Benzene	4200	Not Detected	18000	Not Detected
m,p-Xylene	4200	Not Detected	18000	Not Detected
o-Xylene	4200	Not Detected	18000	Not Detected
Styrene	4200	Not Detected	18000	Not Detected
Bromoform	4200	Not Detected	44000	Not Detected
Cumene	4200	1000 J	21000	5000 J
1,1,2,2-Tetrachloroethane	4200	Not Detected	29000	Not Detected
Propylbenzene	4200	1500 J	21000	7200 J
4-Ethyltoluene	4200	Not Detected	21000	Not Detected
1,3,5-Trimethylbenzene	4200	Not Detected	21000	Not Detected
1,2,4-Trimethylbenzene	4200	Not Detected	21000	Not Detected
1,3-Dichlorobenzene	4200	Not Detected	26000	Not Detected
1,4-Dichlorobenzene	4200	Not Detected	26000	Not Detected
alpha-Chlorotoluene	4200	Not Detected	22000	Not Detected
1,2-Dichlorobenzene	4200	Not Detected	26000	Not Detected
1,2,4-Trichlorobenzene	17000	Not Detected	130000	Not Detected
Hexachlorobutadiene	17000	Not Detected	180000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: VMP 14-5-091010

Lab ID#: 1009302A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092327	Date of Collection: 9/10/10 1:45:00 PM
Dil. Factor:	12.4	Date of Analysis: 9/23/10 10:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	62	Not Detected	310	Not Detected
Freon 114	62	Not Detected	430	Not Detected
Chloromethane	250	Not Detected	510	Not Detected
Vinyl Chloride	62	Not Detected	160	Not Detected
1,3-Butadiene	62	Not Detected	140	Not Detected
Bromomethane	62	Not Detected	240	Not Detected
Chloroethane	62	Not Detected	160	Not Detected
Freon 11	62	Not Detected	350	Not Detected
Ethanol	250	Not Detected	470	Not Detected
Freon 113	62	Not Detected	480	Not Detected
1,1-Dichloroethene	62	Not Detected	240	Not Detected
Acetone	250	Not Detected	590	Not Detected
2-Propanol	250	Not Detected	610	Not Detected
Carbon Disulfide	62	Not Detected	190	Not Detected
3-Chloropropene	250	Not Detected	780	Not Detected
Methylene Chloride	62	Not Detected	220	Not Detected
Methyl tert-butyl ether	62	Not Detected	220	Not Detected
trans-1,2-Dichloroethene	62	Not Detected	240	Not Detected
Hexane	62	160	220	550
1,1-Dichloroethane	62	Not Detected	250	Not Detected
2-Butanone (Methyl Ethyl Ketone)	62	Not Detected	180	Not Detected
cis-1,2-Dichloroethene	62	Not Detected	240	Not Detected
Tetrahydrofuran	62	Not Detected	180	Not Detected
Chloroform	62	Not Detected	300	Not Detected
1,1,1-Trichloroethane	62	Not Detected	340	Not Detected
Cyclohexane	62	250	210	850
Carbon Tetrachloride	62	Not Detected	390	Not Detected
2,2,4-Trimethylpentane	62	4000	290	19000
Benzene	62	220	200	710
1,2-Dichloroethane	62	Not Detected	250	Not Detected
Heptane	62	Not Detected	250	Not Detected
Trichloroethene	62	Not Detected	330	Not Detected
1,2-Dichloropropane	62	Not Detected	290	Not Detected
1,4-Dioxane	250	Not Detected	890	Not Detected
Bromodichloromethane	62	Not Detected	420	Not Detected
cis-1,3-Dichloropropene	62	Not Detected	280	Not Detected
4-Methyl-2-pentanone	62	Not Detected	250	Not Detected
Toluene	62	Not Detected	230	Not Detected
trans-1,3-Dichloropropene	62	Not Detected	280	Not Detected
1,1,2-Trichloroethane	62	Not Detected	340	Not Detected
Tetrachloroethene	62	Not Detected	420	Not Detected



Client Sample ID: VMP 14-5-091010

Lab ID#: 1009302A-06A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092327	Date of Collection:	9/10/10 1:45:00 PM	
Dil. Factor:	12.4	Date of Analysis:	9/23/10 10:46 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	250	Not Detected	1000	Not Detected
Dibromochloromethane	62	Not Detected	530	Not Detected
1,2-Dibromoethane (EDB)	62	Not Detected	480	Not Detected
Chlorobenzene	62	Not Detected	280	Not Detected
Ethyl Benzene	62	Not Detected	270	Not Detected
m,p-Xylene	62	Not Detected	270	Not Detected
o-Xylene	62	Not Detected	270	Not Detected
Styrene	62	Not Detected	260	Not Detected
Bromoform	62	Not Detected	640	Not Detected
Cumene	62	Not Detected	300	Not Detected
1,1,2,2-Tetrachloroethane	62	Not Detected	420	Not Detected
Propylbenzene	62	Not Detected	300	Not Detected
4-Ethyltoluene	62	Not Detected	300	Not Detected
1,3,5-Trimethylbenzene	62	Not Detected	300	Not Detected
1,2,4-Trimethylbenzene	62	Not Detected	300	Not Detected
1,3-Dichlorobenzene	62	Not Detected	370	Not Detected
1,4-Dichlorobenzene	62	Not Detected	370	Not Detected
alpha-Chlorotoluene	62	Not Detected	320	Not Detected
1,2-Dichlorobenzene	62	Not Detected	370	Not Detected
1,2,4-Trichlorobenzene	250	Not Detected	1800	Not Detected
Hexachlorobutadiene	250	Not Detected	2600	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: VMP 14-11.5-091010

Lab ID#: 1009302A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092328	Date of Collection: 9/10/10 2:50:00 PM
Dil. Factor:	191	Date of Analysis: 9/23/10 11:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	960	Not Detected	4700	Not Detected
Freon 114	960	Not Detected	6700	Not Detected
Chloromethane	3800	Not Detected	7900	Not Detected
Vinyl Chloride	960	Not Detected	2400	Not Detected
1,3-Butadiene	960	Not Detected	2100	Not Detected
Bromomethane	960	Not Detected	3700	Not Detected
Chloroethane	960	Not Detected	2500	Not Detected
Freon 11	960	Not Detected	5400	Not Detected
Ethanol	3800	Not Detected	7200	Not Detected
Freon 113	960	Not Detected	7300	Not Detected
1,1-Dichloroethene	960	Not Detected	3800	Not Detected
Acetone	3800	Not Detected	9100	Not Detected
2-Propanol	3800	Not Detected	9400	Not Detected
Carbon Disulfide	960	Not Detected	3000	Not Detected
3-Chloropropene	3800	Not Detected	12000	Not Detected
Methylene Chloride	960	Not Detected	3300	Not Detected
Methyl tert-butyl ether	960	Not Detected	3400	Not Detected
trans-1,2-Dichloroethene	960	Not Detected	3800	Not Detected
Hexane	960	1300	3400	4600
1,1-Dichloroethane	960	Not Detected	3900	Not Detected
2-Butanone (Methyl Ethyl Ketone)	960	Not Detected	2800	Not Detected
cis-1,2-Dichloroethene	960	Not Detected	3800	Not Detected
Tetrahydrofuran	960	Not Detected	2800	Not Detected
Chloroform	960	Not Detected	4700	Not Detected
1,1,1-Trichloroethane	960	Not Detected	5200	Not Detected
Cyclohexane	960	40000	3300	140000
Carbon Tetrachloride	960	Not Detected	6000	Not Detected
2,2,4-Trimethylpentane	960	50000	4500	230000
Benzene	960	16000	3000	52000
1,2-Dichloroethane	960	Not Detected	3900	Not Detected
Heptane	960	Not Detected	3900	Not Detected
Trichloroethene	960	Not Detected	5100	Not Detected
1,2-Dichloropropane	960	Not Detected	4400	Not Detected
1,4-Dioxane	3800	Not Detected	14000	Not Detected
Bromodichloromethane	960	Not Detected	6400	Not Detected
cis-1,3-Dichloropropene	960	Not Detected	4300	Not Detected
4-Methyl-2-pentanone	960	Not Detected	3900	Not Detected
Toluene	960	Not Detected	3600	Not Detected
trans-1,3-Dichloropropene	960	Not Detected	4300	Not Detected
1,1,2-Trichloroethane	960	Not Detected	5200	Not Detected
Tetrachloroethene	960	Not Detected	6500	Not Detected

Client Sample ID: VMP 14-11.5-091010

Lab ID#: 1009302A-07A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092328	Date of Collection:	9/10/10 2:50:00 PM	
DIL Factor:	191	Date of Analysis:	9/23/10 11:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	3800	Not Detected	16000	Not Detected
Dibromochloromethane	960	Not Detected	8100	Not Detected
1,2-Dibromoethane (EDB)	960	Not Detected	7300	Not Detected
Chlorobenzene	960	Not Detected	4400	Not Detected
Ethyl Benzene	960	Not Detected	4100	Not Detected
m,p-Xylene	960	Not Detected	4100	Not Detected
o-Xylene	960	Not Detected	4100	Not Detected
Styrene	960	Not Detected	4100	Not Detected
Bromoform	960	Not Detected	9900	Not Detected
Cumene	960	200 J	4700	970 J
1,1,2,2-Tetrachloroethane	960	Not Detected	6600	Not Detected
Propylbenzene	960	Not Detected	4700	Not Detected
4-Ethyltoluene	960	Not Detected	4700	Not Detected
1,3,5-Trimethylbenzene	960	Not Detected	4700	Not Detected
1,2,4-Trimethylbenzene	960	Not Detected	4700	Not Detected
1,3-Dichlorobenzene	960	Not Detected	5700	Not Detected
1,4-Dichlorobenzene	960	Not Detected	5700	Not Detected
alpha-Chlorotoluene	960	Not Detected	4900	Not Detected
1,2-Dichlorobenzene	960	Not Detected	5700	Not Detected
1,2,4-Trichlorobenzene	3800	Not Detected	28000	Not Detected
Hexachlorobutadiene	3800	Not Detected	41000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092414	Date of Collection:	9/10/10 3:49:00 PM
Dil. Factor:	2910	Date of Analysis:	9/24/10 03:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	14000	Not Detected	72000	Not Detected
Freon 114	14000	Not Detected	100000	Not Detected
Chloromethane	58000	Not Detected	120000	Not Detected
Vinyl Chloride	14000	Not Detected	37000	Not Detected
1,3-Butadiene	14000	Not Detected	32000	Not Detected
Bromomethane	14000	Not Detected	56000	Not Detected
Chloroethane	14000	Not Detected	38000	Not Detected
Freon 11	14000	Not Detected	82000	Not Detected
Ethanol	58000	Not Detected	110000	Not Detected
Freon 113	14000	Not Detected	110000	Not Detected
1,1-Dichloroethene	14000	Not Detected	58000	Not Detected
Acetone	58000	Not Detected	140000	Not Detected
2-Propanol	58000	Not Detected	140000	Not Detected
Carbon Disulfide	14000	Not Detected	45000	Not Detected
3-Chloropropene	58000	Not Detected	180000	Not Detected
Methylene Chloride	14000	5300 J	50000	18000 J
Methyl tert-butyl ether	14000	Not Detected	52000	Not Detected
trans-1,2-Dichloroethene	14000	Not Detected	58000	Not Detected
Hexane	14000	200000	51000	700000
1,1-Dichloroethane	14000	Not Detected	59000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14000	Not Detected	43000	Not Detected
cis-1,2-Dichloroethene	14000	Not Detected	58000	Not Detected
Tetrahydrofuran	14000	Not Detected	43000	Not Detected
Chloroform	14000	Not Detected	71000	Not Detected
1,1,1-Trichloroethane	14000	Not Detected	79000	Not Detected
Cyclohexane	14000	72000	50000	250000
Carbon Tetrachloride	14000	Not Detected	92000	Not Detected
2,2,4-Trimethylpentane	14000	54000	68000	250000
Benzene	14000	12000000	46000	37000000
1,2-Dichloroethane	14000	Not Detected	59000	Not Detected
Heptane	14000	24000	60000	100000
Trichloroethene	14000	Not Detected	78000	Not Detected
1,2-Dichloropropane	14000	Not Detected	67000	Not Detected
1,4-Dioxane	58000	Not Detected	210000	Not Detected
Bromodichloromethane	14000	Not Detected	97000	Not Detected
cis-1,3-Dichloropropene	14000	Not Detected	66000	Not Detected
4-Methyl-2-pentanone	14000	Not Detected	60000	Not Detected
Toluene	14000	Not Detected	55000	Not Detected
trans-1,3-Dichloropropene	14000	Not Detected	66000	Not Detected
1,1,2-Trichloroethane	14000	Not Detected	79000	Not Detected
Tetrachloroethene	14000	Not Detected	99000	Not Detected

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302A-08A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092414	Date of Collection:	9/10/10 3:49:00 PM	
Dil. Factor:	2910	Date of Analysis:	9/24/10 03:56 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	58000	Not Detected	240000	Not Detected
Dibromochloromethane	14000	Not Detected	120000	Not Detected
1,2-Dibromoethane (EDB)	14000	Not Detected	110000	Not Detected
Chlorobenzene	14000	Not Detected	67000	Not Detected
Ethyl Benzene	14000	Not Detected	63000	Not Detected
m,p-Xylene	14000	Not Detected	63000	Not Detected
o-Xylene	14000	Not Detected	63000	Not Detected
Styrene	14000	Not Detected	62000	Not Detected
Bromoform	14000	Not Detected	150000	Not Detected
Cumene	14000	1300 J	72000	6400 J
1,1,2,2-Tetrachloroethane	14000	Not Detected	100000	Not Detected
Propylbenzene	14000	Not Detected	72000	Not Detected
4-Ethyltoluene	14000	Not Detected	72000	Not Detected
1,3,5-Trimethylbenzene	14000	Not Detected	72000	Not Detected
1,2,4-Trimethylbenzene	14000	Not Detected	72000	Not Detected
1,3-Dichlorobenzene	14000	Not Detected	87000	Not Detected
1,4-Dichlorobenzene	14000	Not Detected	87000	Not Detected
alpha-Chlorotoluene	14000	Not Detected	75000	Not Detected
1,2-Dichlorobenzene	14000	Not Detected	87000	Not Detected
1,2,4-Trichlorobenzene	58000	Not Detected	430000	Not Detected
Hexachlorobutadiene	58000	Not Detected	620000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: VMP 14-20-091010-Dup

Lab ID#: 1009302A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092415	Date of Collection:	9/10/10 3:53:00 PM	
Dil. Factor:	3020	Date of Analysis:	9/24/10 04:48 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	15000	Not Detected	75000	Not Detected
Freon 114	15000	Not Detected	100000	Not Detected
Chloromethane	60000	Not Detected	120000	Not Detected
Vinyl Chloride	15000	Not Detected	38000	Not Detected
1,3-Butadiene	15000	Not Detected	33000	Not Detected
Bromomethane	15000	Not Detected	59000	Not Detected
Chloroethane	15000	Not Detected	40000	Not Detected
Freon 11	15000	Not Detected	85000	Not Detected
Ethanol	60000	Not Detected	110000	Not Detected
Freon 113	15000	Not Detected	120000	Not Detected
1,1-Dichloroethene	15000	Not Detected	60000	Not Detected
Acetone	60000	Not Detected	140000	Not Detected
2-Propanol	60000	Not Detected	150000	Not Detected
Carbon Disulfide	15000	Not Detected	47000	Not Detected
3-Chloropropene	60000	Not Detected	190000	Not Detected
Methylene Chloride	15000	Not Detected	52000	Not Detected
Methyl tert-butyl ether	15000	Not Detected	54000	Not Detected
trans-1,2-Dichloroethene	15000	Not Detected	60000	Not Detected
Hexane	15000	210000	53000	750000
1,1-Dichloroethane	15000	Not Detected	61000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	15000	Not Detected	44000	Not Detected
cis-1,2-Dichloroethene	15000	Not Detected	60000	Not Detected
Tetrahydrofuran	15000	Not Detected	44000	Not Detected
Chloroform	15000	Not Detected	74000	Not Detected
1,1,1-Trichloroethane	15000	Not Detected	82000	Not Detected
Cyclohexane	15000	69000	52000	240000
Carbon Tetrachloride	15000	Not Detected	95000	Not Detected
2,2,4-Trimethylpentane	15000	52000	70000	240000
Benzene	15000	11000000	48000	35000000
1,2-Dichloroethane	15000	Not Detected	61000	Not Detected
Heptane	15000	24000	62000	98000
Trichloroethene	15000	Not Detected	81000	Not Detected
1,2-Dichloropropane	15000	Not Detected	70000	Not Detected
1,4-Dioxane	60000	Not Detected	220000	Not Detected
Bromodichloromethane	15000	Not Detected	100000	Not Detected
cis-1,3-Dichloropropene	15000	Not Detected	68000	Not Detected
4-Methyl-2-pentanone	15000	Not Detected	62000	Not Detected
Toluene	15000	Not Detected	57000	Not Detected
trans-1,3-Dichloropropene	15000	Not Detected	68000	Not Detected
1,1,2-Trichloroethane	15000	Not Detected	82000	Not Detected
Tetrachloroethene	15000	Not Detected	100000	Not Detected

Client Sample ID: VMP 14-20-091010-Dup

Lab ID#: 1009302A-09A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092415	Date of Collection:	9/10/10 3:53:00 PM	
Dil. Factor:	3020	Date of Analysis:	9/24/10 04:48 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	60000	Not Detected	250000	Not Detected
Dibromochloromethane	15000	Not Detected	130000	Not Detected
1,2-Dibromoethane (EDB)	15000	Not Detected	120000	Not Detected
Chlorobenzene	15000	Not Detected	70000	Not Detected
Ethyl Benzene	15000	Not Detected	66000	Not Detected
m,p-Xylene	15000	Not Detected	66000	Not Detected
o-Xylene	15000	Not Detected	66000	Not Detected
Styrene	15000	Not Detected	64000	Not Detected
Bromoform	15000	Not Detected	160000	Not Detected
Cumene	15000	Not Detected	74000	Not Detected
1,1,2,2-Tetrachloroethane	15000	Not Detected	100000	Not Detected
Propylbenzene	15000	Not Detected	74000	Not Detected
4-Ethyltoluene	15000	Not Detected	74000	Not Detected
1,3,5-Trimethylbenzene	15000	Not Detected	74000	Not Detected
1,2,4-Trimethylbenzene	15000	Not Detected	74000	Not Detected
1,3-Dichlorobenzene	15000	Not Detected	91000	Not Detected
1,4-Dichlorobenzene	15000	Not Detected	91000	Not Detected
alpha-Chlorotoluene	15000	Not Detected	78000	Not Detected
1,2-Dichlorobenzene	15000	Not Detected	91000	Not Detected
1,2,4-Trichlorobenzene	60000	Not Detected	450000	Not Detected
Hexachlorobutadiene	60000	Not Detected	640000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	115	70-130

Client Sample ID: VMP 15-S-091410

Lab ID#: 1009302A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092125	Date of Collection:	9/14/10 9:24:00 AM	
Dil. Factor:	2.52	Date of Analysis:	9/21/10 05:44 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.2	2.0 J
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	0.00 ND 0.69 J	4.9	0.00 ND 2.7 J
Chloroethane	1.3	Not Detected	3.3	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Ethanol	5.0	4.0 J	9.5	7.6 J
Freon 113	1.3	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	5.0	6.3	12	15
2-Propanol	5.0	7.3	12	18
Carbon Disulfide	1.3	0.00 ND 0.91 J	3.9	0.00 ND 2.8 J
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	1.3	0.29 J	4.4	1.0 J
Methyl tert-butyl ether	1.3	Not Detected	4.5	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	6.2	4.4	22
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	0.34 J	3.7	1.0 J
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.7	Not Detected
Chloroform	1.3	0.26 J	6.2	1.3 J
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Cyclohexane	1.3	1.4	4.3	4.8
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
2,2,4-Trimethylpentane	1.3	6.1	5.9	28
Benzene	1.3	190	4.0	610
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Heptane	1.3	1.4	5.2	5.9
Trichloroethene	1.3	Not Detected	6.8	Not Detected
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	0.48 J	4.7	1.8 J
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	0.24 J	8.5	1.6 J

Client Sample ID: VMP 15-5-091410

Lab ID#: 1009302A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092125	Date of Collection:	9/14/10 9:24:00 AM	
Dil. Factor:	2.52	Date of Analysis:	9/21/10 05:44 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.0	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	0.26 J	5.5	1.1 J
o-Xylene	1.3	Not Detected	5.5	Not Detected
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.6	Not Detected
Propylbenzene	1.3	Not Detected	6.2	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	116	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302A-11A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092026	Date of Collection: 9/14/10 10:37:00 AM		
Dil. Factor:	27.4	Date of Analysis: 9/20/10 10:09 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	140	Not Detected	680	Not Detected
Freon 114	140	Not Detected	960	Not Detected
Chloromethane	550	Not Detected	1100	Not Detected
Vinyl Chloride	140	Not Detected	350	Not Detected
1,3-Butadiene	140	Not Detected	300	Not Detected
Bromomethane	140	Not Detected	530	Not Detected
Chloroethane	140	Not Detected	360	Not Detected
Freon 11	140	Not Detected	770	Not Detected
Ethanol	550	Not Detected	1000	Not Detected
Freon 113	140	Not Detected	1000	Not Detected
1,1-Dichloroethene	140	Not Detected	540	Not Detected
Acetone	550	Not Detected	1300	Not Detected
2-Propanol	550	Not Detected	1300	Not Detected
Carbon Disulfide	140	Not Detected	430	Not Detected
3-Chloropropene	550	Not Detected	1700	Not Detected
Methylene Chloride	140	Not Detected	480	Not Detected
Methyl tert-butyl ether	140	Not Detected	490	Not Detected
trans-1,2-Dichloroethene	140	Not Detected	540	Not Detected
Hexane	140	Not Detected	480	Not Detected
1,1-Dichloroethane	140	Not Detected	550	Not Detected
2-Butanone (Methyl Ethyl Ketone)	140	Not Detected	400	Not Detected
cis-1,2-Dichloroethene	140	Not Detected	540	Not Detected
Tetrahydrofuran	140	Not Detected	400	Not Detected
Chloroform	140	Not Detected	670	Not Detected
1,1,1-Trichloroethane	140	Not Detected	750	Not Detected
Cyclohexane	140	1100	470	4000
Carbon Tetrachloride	140	Not Detected	860	Not Detected
2,2,4-Trimethylpentane	140	65000	640	300000
Benzene	140	190	440	610
1,2-Dichloroethane	140	Not Detected	550	Not Detected
Heptane	140	Not Detected	560	Not Detected
Trichloroethene	140	Not Detected	740	Not Detected
1,2-Dichloropropane	140	Not Detected	630	Not Detected
1,4-Dioxane	550	Not Detected	2000	Not Detected
Bromodichloromethane	140	Not Detected	920	Not Detected
cis-1,3-Dichloropropene	140	Not Detected	620	Not Detected
4-Methyl-2-pentanone	140	Not Detected	560	Not Detected
Toluene	140	Not Detected	520	Not Detected
trans-1,3-Dichloropropene	140	Not Detected	620	Not Detected
1,1,2-Trichloroethane	140	Not Detected	750	Not Detected
Tetrachloroethene	140	Not Detected	930	Not Detected

Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302A-11A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092026	Date of Collection: 9/14/10 10:37:00 AM		
Dil. Factor:	27.4	Date of Analysis: 9/20/10 10:09 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	550	Not Detected	2200	Not Detected
Dibromochloromethane	140	Not Detected	1200	Not Detected
1,2-Dibromoethane (EDB)	140	Not Detected	1000	Not Detected
Chlorobenzene	140	Not Detected	630	Not Detected
Ethyl Benzene	140	Not Detected	590	Not Detected
m,p-Xylene	140	Not Detected	590	Not Detected
o-Xylene	140	Not Detected	590	Not Detected
Styrene	140	Not Detected	580	Not Detected
Bromoform	140	Not Detected	1400	Not Detected
Cumene	140	Not Detected	670	Not Detected
1,1,2,2-Tetrachloroethane	140	Not Detected	940	Not Detected
Propylbenzene	140	Not Detected	670	Not Detected
4-Ethyltoluene	140	Not Detected	670	Not Detected
1,3,5-Trimethylbenzene	140	Not Detected	670	Not Detected
1,2,4-Trimethylbenzene	140	Not Detected	670	Not Detected
1,3-Dichlorobenzene	140	Not Detected	820	Not Detected
1,4-Dichlorobenzene	140	Not Detected	820	Not Detected
alpha-Chlorotoluene	140	Not Detected	710	Not Detected
1,2-Dichlorobenzene	140	Not Detected	820	Not Detected
1,2,4-Trichlorobenzene	550	Not Detected	4100	Not Detected
Hexachlorobutadiene	550	Not Detected	5800	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: VMP 15-25.5-091410

Lab ID#: 1009302A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092131	Date of Collection:	9/14/10 11:49:00 AM	
Dil. Factor:	2.58	Date of Analysis:	9/21/10 08:14 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	0.41 J	6.4	2.0 J
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	1.3	Not Detected	5.0	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
Freon 11	1.3	0.19 J	7.2	1.0 J
Ethanol	5.2	2.8 J	9.7	5.3 J
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	5.2	5.6	12	13
2-Propanol	5.2	1.7 J	13	4.1 J
Carbon Disulfide	1.3	0.0 ND	4.0	0.0 ND
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	1.3	0.75 J	4.5	2.6 J
Methyl tert-butyl ether	1.3	Not Detected	4.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	3.0	4.5	11
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	0.50 J	3.8	1.5 J
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	1.1 J	3.8	3.3 J
Chloroform	1.3	0.48 J	6.3	2.3 J
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	24	4.4	84
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	37	6.0	170
Benzene	1.3	95	4.1	300
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	0.95 J	5.3	3.9 J
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	0.29 J	4.9	1.1 J
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected



Client Sample ID: VMP 15-25.5-091410

Lab ID#: 1009302A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092131	Date of Collection:	9/14/10 11:49:00 AM	
Dil. Factor:	2.58	Date of Analysis:	9/21/10 08:14 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	5.2	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	117	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092006c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 10:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092006c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 10:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092110a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/21/10 10:06 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	0.17 J	1.9	0.66 J
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	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
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	0.25 J	1.6	0.77 J
3-Chloropropene	2.0	Not Detected	6.3	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
Hexane	0.50	Not Detected	1.8	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
Tetrahydrofuran	0.50	Not Detected	1.5	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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	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
1,4-Dioxane	2.0	Not Detected	7.2	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

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092110a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/21/10 10:06 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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
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
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092306a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/23/10 10:24 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092306a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/23/10 10:24 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092409c	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/24/10 12:02 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	4.2 J	17	15 J
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	1.5 J	16	4.9 J
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009302A-13D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092409c	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/24/10 12:02 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: CCV

Lab ID#: 1009302A-14A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 07:56 AM

Compound	%Recovery
Freon 12	111
Freon 114	104
Chloromethane	125
Vinyl Chloride	118
1,3-Butadiene	119
Bromomethane	111
Chloroethane	118
Freon 11	108
Ethanol	113
Freon 113	103
1,1-Dichloroethene	116
Acetone	112
2-Propanol	106
Carbon Disulfide	114
3-Chloropropene	115
Methylene Chloride	123
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	106
Hexane	116
1,1-Dichloroethane	116
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	115
Tetrahydrofuran	122
Chloroform	110
1,1,1-Trichloroethane	105
Cyclohexane	108
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	117
Benzene	112
1,2-Dichloroethane	118
Heptane	112
Trichloroethene	105
1,2-Dichloropropane	113
1,4-Dioxane	103
Bromodichloromethane	109
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	105
Toluene	106
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	104
Tetrachloroethene	100

Client Sample ID: CCV

Lab ID#: 1009302A-14A

MODIFIED EPA METHOD TO-15 GC/MS

File Name: b092002
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 9/20/10 07:56 AM

Compound	%Recovery
2-Hexanone	106
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	104
Chlorobenzene	104
Ethyl Benzene	103
m,p-Xylene	102
o-Xylene	102
Styrene	108
Bromoform	103
Cumene	107
1,1,2,2-Tetrachloroethane	110
Propylbenzene	111
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	126
Hexachlorobutadiene	120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1009302A-14B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 06:54 AM

Compound	%Recovery
Freon 12	113
Freon 114	104
Chloromethane	116
Vinyl Chloride	103
1,3-Butadiene	98
Bromomethane	109
Chloroethane	101
Freon 11	113
Ethanol	89
Freon 113	101
1,1-Dichloroethene	94
Acetone	84
2-Propanol	88
Carbon Disulfide	90
3-Chloropropene	92
Methylene Chloride	103
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	99
Hexane	93
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	94
Tetrahydrofuran	100
Chloroform	109
1,1,1-Trichloroethane	113
Cyclohexane	97
Carbon Tetrachloride	114
2,2,4-Trimethylpentane	100
Benzene	111
1,2-Dichloroethane	129
Heptane	111
Trichloroethene	113
1,2-Dichloropropane	119
1,4-Dioxane	111
Bromodichloromethane	122
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	116
Toluene	116
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	118
Tetrachloroethene	113

Client Sample ID: CCV

Lab ID#: 1009302A-14B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 06:54 AM

Compound	%Recovery
2-Hexanone	116
Dibromochloromethane	118
1,2-Dibromoethane (EDB)	115
Chlorobenzene	112
Ethyl Benzene	114
m,p-Xylene	112
o-Xylene	112
Styrene	117
Bromoform	117
Cumene	115
1,1,2,2-Tetrachloroethane	117
Propylbenzene	116
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	124
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	111	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: CCV

Lab ID#: 1009302A-14C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 07:48 AM

Compound	%Recovery
Freon 12	108
Freon 114	107
Chloromethane	80
Vinyl Chloride	92
1,3-Butadiene	87
Bromomethane	94
Chloroethane	87
Freon 11	111
Ethanol	88
Freon 113	108
1,1-Dichloroethene	96
Acetone	88
2-Propanol	84
Carbon Disulfide	93
3-Chloropropene	92
Methylene Chloride	85
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	94
Hexane	91
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	96
Tetrahydrofuran	81
Chloroform	103
1,1,1-Trichloroethane	114
Cyclohexane	87
Carbon Tetrachloride	113
2,2,4-Trimethylpentane	93
Benzene	89
1,2-Dichloroethane	106
Heptane	87
Trichloroethene	92
1,2-Dichloropropane	90
1,4-Dioxane	96
Bromodichloromethane	106
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	104
Toluene	98
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	98
Tetrachloroethene	108

Client Sample ID: CCV

Lab ID#: 1009302A-14C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 07:48 AM

Compound	%Recovery
2-Hexanone	92
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	103
Chlorobenzene	100
Ethyl Benzene	101
m,p-Xylene	100
o-Xylene	101
Styrene	98
Bromoform	112
Cumene	107
1,1,2,2-Tetrachloroethane	90
Propylbenzene	96
4-Ethyltoluene	110
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	112
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	125
Hexachlorobutadiene	131 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: CCV

Lab ID#: 1009302A-14D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 07:52 AM

Compound	%Recovery
Freon 12	98
Freon 114	92
Chloromethane	73
Vinyl Chloride	79
1,3-Butadiene	76
Bromomethane	79
Chloroethane	70
Freon 11	104
Ethanol	76
Freon 113	106
1,1-Dichloroethene	96
Acetone	88
2-Propanol	82
Carbon Disulfide	86
3-Chloropropene	87
Methylene Chloride	83
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	92
Hexane	89
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	97
Tetrahydrofuran	80
Chloroform	105
1,1,1-Trichloroethane	115
Cyclohexane	90
Carbon Tetrachloride	116
2,2,4-Trimethylpentane	92
Benzene	88
1,2-Dichloroethane	111
Heptane	88
Trichloroethene	92
1,2-Dichloropropane	89
1,4-Dioxane	94
Bromodichloromethane	108
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	100
Toluene	95
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	92
Tetrachloroethene	107

Client Sample ID: CCV

Lab ID#: 1009302A-14D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 07:52 AM

Compound	%Recovery
2-Hexanone	87
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	102
Chlorobenzene	98
Ethyl Benzene	93
m,p-Xylene	94
o-Xylene	95
Styrene	94
Bromoform	110
Cumene	102
1,1,2,2-Tetrachloroethane	84
Propylbenzene	93
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 1009302A-15A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 08:35 AM

Compound	%Recovery
Freon 12	110
Freon 114	103
Chloromethane	127
Vinyl Chloride	118
1,3-Butadiene	121
Bromomethane	112
Chloroethane	116
Freon 11	107
Ethanol	106
Freon 113	90
1,1-Dichloroethene	102
Acetone	108
2-Propanol	103
Carbon Disulfide	115
3-Chloropropene	109
Methylene Chloride	112
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	107
Hexane	115
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	113
Tetrahydrofuran	120
Chloroform	107
1,1,1-Trichloroethane	103
Cyclohexane	107
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	116
Benzene	108
1,2-Dichloroethane	114
Heptane	110
Trichloroethene	103
1,2-Dichloropropane	112
1,4-Dioxane	101
Bromodichloromethane	106
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	102
Toluene	99
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	104
Tetrachloroethene	98

Client Sample ID: LCS

Lab ID#: 1009302A-15A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 08:35 AM

Compound	%Recovery
2-Hexanone	108
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	107
Chlorobenzene	104
Ethyl Benzene	104
m,p-Xylene	103
o-Xylene	102
Styrene	109
Bromoform	103
Cumene	106
1,1,2,2-Tetrachloroethane	111
Propylbenzene	108
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	127
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	125
Hexachlorobutadiene	126

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1009302A-15AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 09:12 AM

Compound	%Recovery
Freon 12	107
Freon 114	106
Chloromethane	127
Vinyl Chloride	121
1,3-Butadiene	122
Bromomethane	112
Chloroethane	117
Freon 11	109
Ethanol	107
Freon 113	93
1,1-Dichloroethene	105
Acetone	111
2-Propanol	105
Carbon Disulfide	116
3-Chloropropene	110
Methylene Chloride	114
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	107
Hexane	116
1,1-Dichloroethane	112
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	114
Tetrahydrofuran	122
Chloroform	108
1,1,1-Trichloroethane	106
Cyclohexane	109
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	118
Benzene	110
1,2-Dichloroethane	116
Heptane	113
Trichloroethene	105
1,2-Dichloropropane	114
1,4-Dioxane	106
Bromodichloromethane	108
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	108
Toluene	101
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	105
Tetrachloroethene	101

Client Sample ID: LCSD

Lab ID#: 1009302A-15AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/10 09:12 AM

Compound	%Recovery
2-Hexanone	110
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	109
Chlorobenzene	106
Ethyl Benzene	107
m,p-Xylene	106
o-Xylene	105
Styrene	111
Bromoform	106
Cumene	108
1,1,2,2-Tetrachloroethane	114
Propylbenzene	111
4-Ethyltoluene	117
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	116
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	117
1,2,4-Trichlorobenzene	138 Q
Hexachlorobutadiene	137 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 1009302A-15B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 07:21 AM

Compound	%Recovery
Freon 12	119
Freon 114	111
Chloromethane	124
Vinyl Chloride	110
1,3-Butadiene	108
Bromomethane	122
Chloroethane	108
Freon 11	118
Ethanol	116
Freon 113	96
1,1-Dichloroethene	91
Acetone	87
2-Propanol	93
Carbon Disulfide	94
3-Chloropropene	99
Methylene Chloride	99
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	104
Hexane	99
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	98
Tetrahydrofuran	104
Chloroform	110
1,1,1-Trichloroethane	115
Cyclohexane	104
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	104
Benzene	112
1,2-Dichloroethane	124
Heptane	112
Trichloroethene	114
1,2-Dichloropropane	118
1,4-Dioxane	111
Bromodichloromethane	121
cis-1,3-Dichloropropene	116
4-Methyl-2-pentanone	118
Toluene	112
trans-1,3-Dichloropropene	119
1,1,2-Trichloroethane	116
Tetrachloroethene	113

Client Sample ID: LCS

Lab ID#: 1009302A-15B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 07:21 AM

Compound	%Recovery
2-Hexanone	114
Dibromochloromethane	119
1,2-Dibromoethane (EDB)	120
Chlorobenzene	114
Ethyl Benzene	117
m,p-Xylene	116
o-Xylene	113
Styrene	117
Bromoform	118
Cumene	113
1,1,2,2-Tetrachloroethane	118
Propylbenzene	115
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCSD

Lab ID#: 1009302A-15BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 07:37 AM

Compound	%Recovery
Freon 12	115
Freon 114	109
Chloromethane	116
Vinyl Chloride	107
1,3-Butadiene	104
Bromomethane	123
Chloroethane	104
Freon 11	114
Ethanol	98
Freon 113	95
1,1-Dichloroethene	89
Acetone	84
2-Propanol	89
Carbon Disulfide	93
3-Chloropropene	94
Methylene Chloride	95
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	101
Hexane	97
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	97
Tetrahydrofuran	102
Chloroform	108
1,1,1-Trichloroethane	113
Cyclohexane	101
Carbon Tetrachloride	115
2,2,4-Trimethylpentane	106
Benzene	108
1,2-Dichloroethane	117
Heptane	110
Trichloroethene	109
1,2-Dichloropropane	114
1,4-Dioxane	106
Bromodichloromethane	116
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	113
Toluene	108
trans-1,3-Dichloropropene	114
1,1,2-Trichloroethane	115
Tetrachloroethene	109

Client Sample ID: LCSD

Lab ID#: 1009302A-15BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p092104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/21/10 07:37 AM

Compound	%Recovery
2-Hexanone	109
Dibromochloromethane	115
1,2-Dibromoethane (EDB)	116
Chlorobenzene	111
Ethyl Benzene	114
m,p-Xylene	113
o-Xylene	111
Styrene	113
Bromoform	116
Cumene	110
1,1,2,2-Tetrachloroethane	116
Propylbenzene	112
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	109
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	119
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	108
Hexachlorobutadiene	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1009302A-15C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 08:27 AM

Compound	%Recovery
Freon 12	104
Freon 114	102
Chloromethane	80
Vinyl Chloride	89
1,3-Butadiene	88
Bromomethane	94
Chloroethane	88
Freon 11	110
Ethanol	78
Freon 113	92
1,1-Dichloroethene	85
Acetone	88
2-Propanol	79
Carbon Disulfide	86
3-Chloropropene	86
Methylene Chloride	77
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	93
Hexane	87
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	91
Tetrahydrofuran	78
Chloroform	97
1,1,1-Trichloroethane	108
Cyclohexane	88
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	89
Benzene	85
1,2-Dichloroethane	100
Heptane	85
Trichloroethene	88
1,2-Dichloropropane	86
1,4-Dioxane	92
Bromodichloromethane	102
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	95
Toluene	90
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	95
Tetrachloroethene	105

Client Sample ID: LCS

Lab ID#: 1009302A-15C

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 08:27 AM

Compound	%Recovery
2-Hexanone	93
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	104
Chlorobenzene	100
Ethyl Benzene	98
m,p-Xylene	98
o-Xylene	100
Styrene	104
Bromoform	110
Cumene	104
1,1,2,2-Tetrachloroethane	90
Propylbenzene	94
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	111
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	132 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCSD

Lab ID#: 1009302A-15CC

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 09:09 AM

Compound	%Recovery
Freon 12	107
Freon 114	103
Chloromethane	81
Vinyl Chloride	94
1,3-Butadiene	92
Bromomethane	95
Chloroethane	90
Freon 11	111
Ethanol	75
Freon 113	97
1,1-Dichloroethene	86
Acetone	84
2-Propanol	80
Carbon Disulfide	88
3-Chloropropene	83
Methylene Chloride	79
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	93
Hexane	89
1,1-Dichloroethane	88
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	93
Tetrahydrofuran	80
Chloroform	100
1,1,1-Trichloroethane	110
Cyclohexane	91
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	90
Benzene	87
1,2-Dichloroethane	103
Heptane	85
Trichloroethene	91
1,2-Dichloropropane	88
1,4-Dioxane	91
Bromodichloromethane	103
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	100
Toluene	92
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	98
Tetrachloroethene	106

Client Sample ID: LCSD

Lab ID#: 1009302A-15CC

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/23/10 09:09 AM

Compound	%Recovery
2-Hexanone	90
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	102
Chlorobenzene	100
Ethyl Benzene	98
m,p-Xylene	96
o-Xylene	99
Styrene	102
Bromoform	110
Cumene	102
1,1,2,2-Tetrachloroethane	91
Propylbenzene	92
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	105
Hexachlorobutadiene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCS

Lab ID#: 1009302A-15D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 08:29 AM

Compound	%Recovery
Freon 12	114
Freon 114	108
Chloromethane	83
Vinyl Chloride	94
1,3-Butadiene	90
Bromomethane	98
Chloroethane	85
Freon 11	118
Ethanol	69
Freon 113	94
1,1-Dichloroethene	84
Acetone	75
2-Propanol	76
Carbon Disulfide	82
3-Chloropropene	85
Methylene Chloride	76
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	95
Hexane	86
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	94
Tetrahydrofuran	80
Chloroform	103
1,1,1-Trichloroethane	116
Cyclohexane	86
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	89
Benzene	86
1,2-Dichloroethane	105
Heptane	88
Trichloroethene	92
1,2-Dichloropropane	86
1,4-Dioxane	92
Bromodichloromethane	105
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	97
Toluene	90
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	100
Tetrachloroethene	109

Client Sample ID: LCS

Lab ID#: 1009302A-15D

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 08:29 AM

Compound	%Recovery
2-Hexanone	92
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	107
Chlorobenzene	101
Ethyl Benzene	101
m,p-Xylene	100
o-Xylene	101
Styrene	107
Bromoform	115
Cumene	104
1,1,2,2-Tetrachloroethane	90
Propylbenzene	96
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	114
Hexachlorobutadiene	128

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCSD

Lab ID#: 1009302A-15DD

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 09:28 AM

Compound	%Recovery
Freon 12	105
Freon 114	97
Chloromethane	78
Vinyl Chloride	82
1,3-Butadiene	81
Bromomethane	84
Chloroethane	76
Freon 11	115
Ethanol	65
Freon 113	92
1,1-Dichloroethene	81
Acetone	72
2-Propanol	74
Carbon Disulfide	76
3-Chloropropene	74
Methylene Chloride	74
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	93
Hexane	84
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	81
cis-1,2-Dichloroethene	96
Tetrahydrofuran	78
Chloroform	100
1,1,1-Trichloroethane	115
Cyclohexane	83
Carbon Tetrachloride	118
2,2,4-Trimethylpentane	86
Benzene	83
1,2-Dichloroethane	109
Heptane	78
Trichloroethene	86
1,2-Dichloropropane	83
1,4-Dioxane	82
Bromodichloromethane	107
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	99
Toluene	83
trans-1,3-Dichloropropene	109
1,1,2-Trichloroethane	103
Tetrachloroethene	118

Client Sample ID: LCSD

Lab ID#: 1009302A-15DD

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	w092405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 09:28 AM

Compound	%Recovery
2-Hexanone	92
Dibromochloromethane	119
1,2-Dibromoethane (EDB)	111
Chlorobenzene	104
Ethyl Benzene	99
m,p-Xylene	97
o-Xylene	100
Styrene	105
Bromoform	121
Cumene	109
1,1,2,2-Tetrachloroethane	90
Propylbenzene	98
4-Ethyltoluene	110
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	115
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	115
1,2-Dichlorobenzene	114
1,2,4-Trichlorobenzene	131 Q
Hexachlorobutadiene	148 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	114	70-130

Sample Transportation Notice

TOXICS LTD.
CHAIN-OF-CUSTODY RECORD

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 Requiring 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. Requiring 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

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(916) 985-1000 FAX (916) 985-1020
Page 1 of 2

Page 1 of 2

Project Manager <u>Jeff Adams</u>		Collected by: (Print and Sign) <u>M. Miller</u>		Company <u>UPS Corporation</u>		Address <u>1001 W. 1st St. Ste. 200</u>		City <u>St. Louis</u>		State <u>MO</u>		Zip <u>63106</u>	
Phone <u>314-425-0100</u>		Fax <u>314-425-6462</u>											
Project Info:				Turn Around Time:				Lab Use Only					
P.O. # _____				☐ Normal				Pressurized by: _____					
Project # _____				☐ Rush				Date: _____					
Project Name <u>Reagan</u>				Analyses Requested _____				Pressurization Gas: _____					
Date of Collection _____				Time of Collection _____				Canister Pressure/Vacuum					
Can # _____				Time _____				Initial _____ Final _____					

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time	Analyses Requested	Canister Pressure/Vacuum	Final (psi)
01A	VMP-13-10.5-091310	2222	9/13/10	1023/1023	400.00 TD-15/1500 D 114624	30	6
02A	VMP-13-10.5-091310-DUP	1107	9/13/10	1013/1013	" "	30	4.5
03A	VMP-13-21.5-091310	781	9/13/10	1202/1232	" "	30	6
04A	VMP-13-5-091310	3451	9/13/10	0919/0947	" "	30	8
05A	VMP-3-22-091010	3730	9/10/10	144/1152	" "	30	6
06A	VMP-14-5-091010	114	9/10/10	1315/1345	" "	30	4.5
07A	VMP-14-11.5-091010	3951	9/10/10	1419/1450	" "	30	4.5
08A	VMP-14-20-091010	573	9/10/10	1522/1549	" "	30	5
09A	VMP-14-20-091010-DUP	1420	9/10/10	1533/1533	" "	30	6
10A	VMP-15-5-091410	2149	9/14/10	0900/0924	" "	30	7

Received by: (signature) <u>FedEx</u>		Date/Time <u>9/14/10 1600</u>		Notes: <u>-14 day hold time</u>	
Relinquished by: (signature) <u>Monica Grogan</u>		Date/Time <u>9/15/10</u>		Report results between <u>MDL and RL</u>	
Relinquished by: (signature) _____		Date/Time _____		915 - Last IL ECVF	

Lab Use Only	Shipper Name <u>FedEx</u>	Air Bill # _____	Temp. (°C) _____	Condition <u>Good</u>	Custody Seals Intact? <u>Yes</u>	Yes <u>No</u>	Work Order # <u>1009302</u>



FORM 1293 (REV. 11)

9/28/2010

Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxan Dissolved Phase
Project #:
Workorder #: 1009302B

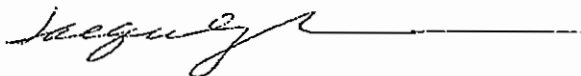
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/15/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
9/30/2010

WORK ORDER #: 1009302B

Work Order Summary

CLIENT:	Mr. Jeff Adams URS Corporation 1001 Highlands Plaza Dr. West Suite 300 St. Louis, MO 63110	BILL TO:	Accounts Payable Austin URS Corporation P.O. BOX 203970 Austin, TX 78720-1088
PHONE:	314-429-0100	P.O. #	21562289.00011
FAX:		PROJECT #	Roxan Dissolved Phase
DATE RECEIVED:	09/15/2010	CONTACT:	Jacquelyn Luta
DATE COMPLETED:	09/28/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP 13-10.5-091310 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
02A	VMP 13-10.5-091310-Dup ✓	Modified ASTM D-1946	4.5 "Hg	15 psi
03A	VMP 13-21.5-091310 ✓	Modified ASTM D-1946	5.0 "Hg	15 psi
04A	VMP 13-5-091310 ✓	Modified ASTM D-1946	7.0 "Hg	15 psi
05A	VMP 3-22-091010 ✓	Modified ASTM D-1946	4.5 "Hg	15 psi
06A	VMP 14-5-091010 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
07A	VMP 14-11.5-091010 ✓	Modified ASTM D-1946	3.5 "Hg	15 psi
08A	VMP 14-20-091010 ✓	Modified ASTM D-1946	4.0 "Hg	15 psi
09A	VMP 14-20-091010-Dup ✓	Modified ASTM D-1946	5.0 "Hg	15 psi
10A	VMP 15-5-091410 ✓	Modified ASTM D-1946	6.0 "Hg	15 psi
11A	VMP 15-21.5-091410 ✓	Modified ASTM D-1946	5.5 "Hg	15 psi
12A	VMP 15-25.5-091410 ✓	Modified ASTM D-1946	6.5 "Hg	15 psi
13A	Lab Blank	Modified ASTM D-1946	NA	NA
13B	Lab Blank	Modified ASTM D-1946	NA	NA
14A	LCS	Modified ASTM D-1946	NA	NA
14AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Linda A. Fumman

Laboratory Director

DATE: 09/28/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009302B**

Twelve 1 Liter Summa Canister samples were received on September 15, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP 13-10.5-091310

Lab ID#: 1009302B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.49	3.4
Nitrogen	0.49	86
Methane	0.00049	0.068
Carbon Dioxide	0.049	11

Client Sample ID: VMP 13-10.5-091310-Dup

Lab ID#: 1009302B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.48	3.6
Nitrogen	0.48	85
Methane	0.00048	0.076
Carbon Dioxide	0.048	11

Client Sample ID: VMP 13-21.5-091310

Lab ID#: 1009302B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	2.5
Nitrogen	0.24	83
Methane	0.00024	2.0
Carbon Dioxide	0.024	12
Ethane	0.0024	0.00034 J

Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	7.0
Nitrogen	0.26	84
Methane	0.00026	0.00088

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302B-04A

Carbon Dioxide	0.026	8.4

Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.1
Nitrogen	0.24	56
Methane	0.00036	28
Carbon Dioxide	0.024	9.2
Ethane	0.0024	0.012

Client Sample ID: VMP 14-5-091010

Lab ID#: 1009302B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	1.8
Nitrogen	0.25	69
Methane	0.00025	10
Carbon Dioxide	0.025	19
Ethane	0.0025	0.0063
Helium	0.12	0.010 J

Client Sample ID: VMP 14-11.5-091010

Lab ID#: 1009302B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	1.1
Nitrogen	0.23	62
Methane	0.00023	20
Carbon Dioxide	0.023	16
Ethane	0.0023	0.010
Helium	0.11	0.0087 J

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	0.97
Nitrogen	0.23	57
Methane	0.00023	22
Carbon Dioxide	0.023	17
Ethane	0.0023	0.012

Client Sample ID: VMP 14-20-091010-Dup

Lab ID#: 1009302B-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.1
Nitrogen	0.24	57
Methane	0.00024	22
Carbon Dioxide	0.024	17
Ethane	0.0024	0.011

Client Sample ID: VMP 15-5-091410

Lab ID#: 1009302B-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	3.0
Nitrogen	0.25	80
Methane	0.00025	0.00012 J
Carbon Dioxide	0.025	17
Helium	0.13	0.0071 J

Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302B-11A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.3

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302B-11A

Nitrogen	0.25	66
Methane	0.00025	13
Carbon Dioxide	0.025	17
Ethane	0.0025	0.012
Helium	0.12	1.0

Client Sample ID: VMP 15-25.5-091410

Lab ID#: 1009302B-12A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.67	14
Nitrogen	0.67	74
Methane	0.00067	0.013
Carbon Dioxide	0.067	7.1
Helium	0.33	5.3

Client Sample ID: VMP 13-10.5-091310

Lab ID#: 1009302B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092405	Date of Collection:	9/13/10 10:53:00 AM
Dil. Factor:	4.89	Date of Analysis:	9/24/10 04:53 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.49	3.4	
Nitrogen	0.49	86	
Carbon Monoxide	0.049	Not Detected	
Methane	0.00049	0.068	
Carbon Dioxide	0.049	11	
Ethane	0.0049	Not Detected	
Ethene	0.0049	Not Detected	
Helium	0.24	Not Detected	

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 13-10.5-091310-Dup

Lab ID#: 1009302B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092418	Date of Collection: 9/13/10 10:53:00 AM
Dil. Factor:	4.81	Date of Analysis: 9/24/10 09:55 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.48	3.6
Nitrogen	0.48	85
Carbon Monoxide	0.048	Not Detected
Methane	0.00048	0.076
Carbon Dioxide	0.048	11
Ethane	0.0048	Not Detected
Ethene	0.0048	Not Detected
Helium	0.24	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 13-21.5-091310

Lab ID#: 1009302B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092406	Date of Collection:	9/13/10 12:32:00 PM
Dil. Factor:	2.42	Date of Analysis:	9/24/10 05:27 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	2.5	
Nitrogen	0.24	83	
Carbon Monoxide	0.024	Not Detected	
Methane	0.00024	2.0	
Carbon Dioxide	0.024	12	
Ethane	0.0024	0.00034 J	
Ethene	0.0024	Not Detected	
Helium	0.12	Not Detected	

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP 13-5-091310

Lab ID#: 1009302B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092415	Date of Collection:	9/13/10 9:47:00 AM
Dil. Factor:	2.64	Date of Analysis:	9/24/10 08:57 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.26	7.0	
Nitrogen	0.26	84	
Carbon Monoxide	0.026	Not Detected	
Methane	0.00026	0.00088	
Carbon Dioxide	0.026	8.4	
Ethane	0.0026	Not Detected	
Ethene	0.0026	Not Detected	
Helium	0.13	Not Detected	

Container Type: 1 Liter Summa Canister

10
Client Sample ID: VMP 3-22-091010

Lab ID#: 1009302B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092407	Date of Collection: 9/10/10 11:52:00 AM
Dil. Factor:	2.38	Date of Analysis: 9/24/10 05:49 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.1
Nitrogen	0.24	56
Carbon Monoxide	0.024	Not Detected
Methane	0.00036	28
Carbon Dioxide	0.024	9.2
Ethane	0.0024	0.012
Ethene	0.0024	Not Detected
Helium	0.12	Not Detected

Methane was reported from file # 9092408 analyzed on September 24, 2010 at a dilution factor of 3.57.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 14-5-091010

Lab ID#: 1009302B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092409	Date of Collection:	9/10/10 1:45:00 PM
Dil. Factor:	2.47	Date of Analysis:	9/24/10 06:38 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	1.8	
Nitrogen	0.25	69	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00025	10	
Carbon Dioxide	0.025	19	
Ethane	0.0025	0.0063	
Ethene	0.0025	Not Detected	
Helium	0.12	0.010 J	

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 14-11.5-091010

Lab ID#: 1009302B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092410	Date of Collection: 9/10/10 2:50:00 PM
Dil. Factor:	2.29	Date of Analysis: 9/24/10 07:00 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	1.1
Nitrogen	0.23	62
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	20
Carbon Dioxide	0.023	16
Ethane	0.0023	0.010
Ethene	0.0023	Not Detected
Helium	0.11	0.0087 J

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 14-20-091010

Lab ID#: 1009302B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092411	Date of Collection:	9/10/10 3:49:00 PM
Dil. Factor:	2.33	Date of Analysis:	9/24/10 07:21 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.23	0.97	
Nitrogen	0.23	57	
Carbon Monoxide	0.023	Not Detected	
Methane	0.00023	22	
Carbon Dioxide	0.023	17	
Ethane	0.0023	0.012	
Ethene	0.0023	Not Detected	
Helium	0.12	Not Detected	

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP 14-20-091010-Dup

Lab ID#: 1009302B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092412	Date of Collection:	9/10/10 3:53:00 PM
Dil. Factor:	2.42	Date of Analysis:	9/24/10 07:43 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	1.1	
Nitrogen	0.24	57	
Carbon Monoxide	0.024	Not Detected	
Methane	0.00024	22	
Carbon Dioxide	0.024	17	
Ethane	0.0024	0.011	
Ethene	0.0024	Not Detected	
Helium	0.12	Not Detected	

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 15-5-091410

Lab ID#: 1009302B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092416	Date of Collection:	9/14/10 9:24:00 AM
Dil. Factor:	2.52	Date of Analysis:	9/24/10 09:16 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.25	3.0	
Nitrogen	0.25	80	
Carbon Monoxide	0.025	Not Detected	
Methane	0.00025	0.00012 J	
Carbon Dioxide	0.025	17	
Ethane	0.0025	Not Detected	
Ethene	0.0025	Not Detected	
Helium	0.13	0.0071 J	COND

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: VMP 15-21.5-091410

Lab ID#: 1009302B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092413	Date of Collection: 9/14/10 10:37:00 AM
Dil. Factor:	2.47	Date of Analysis: 9/24/10 08:14 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.3
Nitrogen	0.25	66
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	13
Carbon Dioxide	0.025	17
Ethane	0.0025	0.012
Ethene	0.0025	Not Detected
Helium	0.12	1.0

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP 15-25.5-091410

Lab ID#: 1009302B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092417	Date of Collection: 9/14/10 11:49:00 AM
Dil. Factor:	6.66	Date of Analysis: 9/24/10 09:36 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.67	14
Nitrogen	0.67	74
Carbon Monoxide	0.067	Not Detected
Methane	0.00067	0.013
Carbon Dioxide	0.067	7.1
Ethane	0.0067	Not Detected
Ethene	0.0067	Not Detected
Helium	0.33	5.3

Container Type: 1 Liter Summa Canister

Client Sample ID: Lab Blank

Lab ID#: 1009302B-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092404a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 04:17 PM
Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.0097 J
Nitrogen	0.10	0.051 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1009302B-13B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092403ba	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 03:55 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	0.0053 J

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1009302B-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 03:34 PM

Compound	%Recovery
Oxygen	93
Nitrogen	100
Carbon Monoxide	102
Methane	99
Carbon Dioxide	100
Ethane	101
Ethene	101
Helium	97

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 1009302B-14AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9092419	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/24/10 10:19 PM

Compound	%Recovery
Oxygen	92
Nitrogen	100
Carbon Monoxide	102
Methane	97
Carbon Dioxide	100
Ethane	99
Ethene	99
Helium	96

Container Type: NA - Not Applicable



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

Page 1 of 2

Project Manager Jeff Adams
Collected by: (Print and Sign) M. Miller
Company URS Corporation Email thomas.miller@urscorp.com
Address 1015 Hwy 152 Blumen Park City State Zip 63110
Phone 314-439-0100 Fax 314-439-4461

Project Info:
P.O. # _____
Project # _____
Project Name Redden District Phase
Turn Around Time: ☐ Normal ☐ Rush
Pressurized by: _____
Date: _____
Pressurization Gas: N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum	
						Initial	Final (ps)
01A	VMP-13-10.5-091310	2222	9/13/10	1023/1053	4026.0 TO-15/HSPD-14614	30	6
02A	VMP-13-10.5-091310-DUP	1127	9/13/10	1023/1053	"	30	4.5
03A	VMP-13-21.5-091310	781	9/13/10	1202/1232	"	30	6
04A	VMP-13-5-091310	3451	9/13/10	0919/0947	"	30	8
05A	VMP-3-22-091010	3730	9/10/10	1149/1152	"	30	6
06A	VMP-14-5-091010	1114	9/10/10	1315/1345	"	30	4.5
07A	VMP-14-11.5-091010	3951	9/10/10	1419/1450	"	30	4.5
08A	VMP-14-20-091010	573	9/10/10	1522/1549	"	30	5
09A	VMP-14-20-091010-DUP	1420	9/10/10	1522/1533	"	30	6
10A	VMP-15-5-091410	2149	9/14/10	0920/0929	"	30	7

Relinquished by: (signature) Jeff Adams Date/Time 9/14/10 1600
Received by: (signature) FedEx Date/Time _____
Relinquished by: (signature) _____ Date/Time _____
Received by: (signature) _____ Date/Time _____
Notes: -14 day hold time
Report results between MDT and RL
9/5 - Last IL EUP

Lab Use Only
Shipper Name FedEx Air Bill # _____
Temp (°C) NA Condition Good Custody Seals Intact? Yes ☒ No ☐
Work Order # 1009302



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 2

Project Manager Jeff Adams
 Collected by: (Print and Sign) Miller
 Company URS Corporation Email thomas_adams@urscorp.com
 Address 1000 Highways Plaza Dr. W. City St. Louis State MO Zip 63110
 Phone 314-429-0100 Fax 314 429-0462

Project Info:	Lab Use Only
P.O. # _____	Pressurized by: _____
Project # _____	Date: _____
Project Name <i>Poster Disinfectant</i>	Pressurization Gas: _____
	N ₂ He
Turn Around Time:	
☐ Normal	
☐ Rush	
	<i>specify</i>

[illegible]

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes: - 14 day hold time - Report permits between MBL and PL - Local ID ECUF
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
					Yes No	1009303

Roxana Vapor Data Review

Laboratory SDG: 1009448

Reviewer: Elizabeth Kunkel

Date Reviewed: 10/8/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation (2009)

Sample Identification	Sample Identification
VMP-3-10-092010	VMP-3-22-092010

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that samples VMP-3-10-092010 and VMP-3-22-092010 were diluted due to high levels of non-target analytes. Additionally, natural gases were detected in the method blank. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
1009448B-03A	Natural gases	Oxygen	0.0099%
1009448B-03A	Natural gases	Nitrogen	0.053%
1009448B-03B	Natural gases	Helium	0.0041%

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
VMP-3-10-092010	Natural gases	Helium	-	U
VMP-3-22-092010	Natural gases	Helium	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

MS/MSD samples are not applicable for vapor samples, due to inability to spike the samples.

8.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

10/6/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009448A

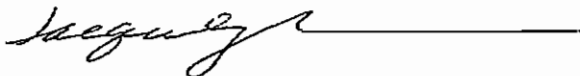
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/21/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

Reviewed
on
10/8/2010

WORK ORDER #: 1009448A

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/21/2010

DATE COMPLETED: 09/30/2010

P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-3-10-092010 ✓	Modified TO-15 (5&20 ppbv	5.6 "Hg	15 psi
02A	VMP-3-22-092010 ✓	Modified TO-15 (5&20 ppbv	5.2 "Hg	15 psi
03A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
04A	CCV	Modified TO-15 (5&20 ppbv	NA	NA
05A	LCS	Modified TO-15 (5&20 ppbv	NA	NA
05AA	LCSD	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY:

Sandra J. Freeman

Laboratory Director

DATE: 10/06/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
URS Corporation
Workorder# 1009448A

Two 1 Liter Summa Canister samples were received on September 21, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on samples VMP-3-10-092010 and VMP-3-22-092010 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ - Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS**

Client Sample ID: VMP-3-10-092010

Lab ID#: 1009448A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	3100	190000	11000	660000
Cyclohexane	3100	240000	11000	840000
2,2,4-Trimethylpentane	3100	520000	14000	2400000
Benzene	3100	2800 J	9900	9000 J
Heptane	3100	12000	13000	48000
Toluene	3100	2600 J	12000	9900 J
m,p-Xylene	3100	1500 J	13000	6600 J
Propylbenzene	3100	900 J	15000	4400 J

Client Sample ID: VMP-3-22-092010

Lab ID#: 1009448A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	4100	440000	14000	1500000
Cyclohexane	4100	320000	14000	1100000
2,2,4-Trimethylpentane	4100	700000	19000	3200000
Benzene	4100	10000	13000	34000
Heptane	4100	31000	17000	130000
Toluene	4100	9800	15000	37000
Ethyl Benzene	4100	2200 J	18000	9400 J
m,p-Xylene	4100	6100	18000	26000
o-Xylene	4100	2500 J	18000	11000 J
Cumene	4100	2800 J	20000	14000 J
Propylbenzene	4100	5900	20000	29000
4-Ethyltoluene	4100	1600 J	20000	7700 J
1,2,4-Trimethylbenzene	4100	1100 J	20000	5300 J

Client Sample ID: VMP-3-10-092010

Lab ID#: 1009448A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092730	Date of Collection: 9/20/10 12:16:00 PM		
Dil. Factor:	620	Date of Analysis: 9/27/10 11:03 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3100	Not Detected	15000	Not Detected
Freon 114	3100	Not Detected	22000	Not Detected
Chloromethane	12000	Not Detected	26000	Not Detected
Vinyl Chloride	3100	Not Detected	7900	Not Detected
1,3-Butadiene	3100	Not Detected	6800	Not Detected
Bromomethane	3100	Not Detected	12000	Not Detected
Chloroethane	3100	Not Detected	8200	Not Detected
Freon 11	3100	Not Detected	17000	Not Detected
Ethanol	12000	Not Detected	23000	Not Detected
Freon 113	3100	Not Detected	24000	Not Detected
1,1-Dichloroethene	3100	Not Detected	12000	Not Detected
Acetone	12000	Not Detected	29000	Not Detected
2-Propanol	12000	Not Detected	30000	Not Detected
Carbon Disulfide	3100	Not Detected	9600	Not Detected
3-Chloropropene	12000	Not Detected	39000	Not Detected
Methylene Chloride	3100	Not Detected	11000	Not Detected
Methyl tert-butyl ether	3100	Not Detected	11000	Not Detected
trans-1,2-Dichloroethene	3100	Not Detected	12000	Not Detected
Hexane	3100	190000	11000	660000
1,1-Dichloroethane	3100	Not Detected	12000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3100	Not Detected	9100	Not Detected
cis-1,2-Dichloroethene	3100	Not Detected	12000	Not Detected
Tetrahydrofuran	3100	Not Detected	9100	Not Detected
Chloroform	3100	Not Detected	15000	Not Detected
1,1,1-Trichloroethane	3100	Not Detected	17000	Not Detected
Cyclohexane	3100	240000	11000	840000
Carbon Tetrachloride	3100	Not Detected	20000	Not Detected
2,2,4-Trimethylpentane	3100	520000	14000	2400000
Benzene	3100	2800 J	9900	9000 J
1,2-Dichloroethane	3100	Not Detected	12000	Not Detected
Heptane	3100	12000	13000	48000
Trichloroethene	3100	Not Detected	17000	Not Detected
1,2-Dichloropropane	3100	Not Detected	14000	Not Detected
1,4-Dioxane	12000	Not Detected	45000	Not Detected
Bromodichloromethane	3100	Not Detected	21000	Not Detected
cis-1,3-Dichloropropene	3100	Not Detected	14000	Not Detected
4-Methyl-2-pentanone	3100	Not Detected	13000	Not Detected
Toluene	3100	2600 J	12000	9900 J
trans-1,3-Dichloropropene	3100	Not Detected	14000	Not Detected
1,1,2-Trichloroethane	3100	Not Detected	17000	Not Detected
Tetrachloroethene	3100	Not Detected	21000	Not Detected

Client Sample ID: VMP-3-10-092010

Lab ID#: 1009448A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092730	Date of Collection:	9/20/10 12:16:00 PM	
Dil. Factor:	620	Date of Analysis:	9/27/10 11:03 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	12000	Not Detected	51000	Not Detected
Dibromochloromethane	3100	Not Detected	26000	Not Detected
1,2-Dibromoethane (EDB)	3100	Not Detected	24000	Not Detected
Chlorobenzene	3100	Not Detected	14000	Not Detected
Ethyl Benzene	3100	Not Detected	13000	Not Detected
m,p-Xylene	3100	1500 J	13000	6600 J
o-Xylene	3100	Not Detected	13000	Not Detected
Styrene	3100	Not Detected	13000	Not Detected
Bromoform	3100	Not Detected	32000	Not Detected
Cumene	3100	Not Detected	15000	Not Detected
1,1,2,2-Tetrachloroethane	3100	Not Detected	21000	Not Detected
Propylbenzene	3100	900 J	15000	4400 J
4-Ethyltoluene	3100	Not Detected	15000	Not Detected
1,3,5-Trimethylbenzene	3100	Not Detected	15000	Not Detected
1,2,4-Trimethylbenzene	3100	Not Detected	15000	Not Detected
1,3-Dichlorobenzene	3100	Not Detected	19000	Not Detected
1,4-Dichlorobenzene	3100	Not Detected	19000	Not Detected
alpha-Chlorotoluene	3100	Not Detected	16000	Not Detected
1,2-Dichlorobenzene	3100	Not Detected	19000	Not Detected
1,2,4-Trichlorobenzene	12000	Not Detected	92000	Not Detected
Hexachlorobutadiene	12000	Not Detected	130000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VMP-3-22-092010

Lab ID#: 1009448A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092731	Date of Collection: 9/20/10 11:07:00 AM		
Dil. Factor:	813	Date of Analysis: 9/28/10 12:05 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4100	Not Detected	20000	Not Detected
Freon 114	4100	Not Detected	28000	Not Detected
Chloromethane	16000	Not Detected	34000	Not Detected
Vinyl Chloride	4100	Not Detected	10000	Not Detected
1,3-Butadiene	4100	Not Detected	9000	Not Detected
Bromomethane	4100	Not Detected	16000	Not Detected
Chloroethane	4100	Not Detected	11000	Not Detected
Freon 11	4100	Not Detected	23000	Not Detected
Ethanol	16000	Not Detected	31000	Not Detected
Freon 113	4100	Not Detected	31000	Not Detected
1,1-Dichloroethene	4100	Not Detected	16000	Not Detected
Acetone	16000	Not Detected	39000	Not Detected
2-Propanol	16000	Not Detected	40000	Not Detected
Carbon Disulfide	4100	Not Detected	13000	Not Detected
3-Chloropropene	16000	Not Detected	51000	Not Detected
Methylene Chloride	4100	Not Detected	14000	Not Detected
Methyl tert-butyl ether	4100	Not Detected	15000	Not Detected
trans-1,2-Dichloroethene	4100	Not Detected	16000	Not Detected
Hexane	4100	440000	14000	1500000
1,1-Dichloroethane	4100	Not Detected	16000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4100	Not Detected	12000	Not Detected
cis-1,2-Dichloroethene	4100	Not Detected	16000	Not Detected
Tetrahydrofuran	4100	Not Detected	12000	Not Detected
Chloroform	4100	Not Detected	20000	Not Detected
1,1,1-Trichloroethane	4100	Not Detected	22000	Not Detected
Cyclohexane	4100	320000	14000	1100000
Carbon Tetrachloride	4100	Not Detected	26000	Not Detected
2,2,4-Trimethylpentane	4100	700000	19000	3200000
Benzene	4100	10000	13000	34000
1,2-Dichloroethane	4100	Not Detected	16000	Not Detected
Heptane	4100	31000	17000	130000
Trichloroethene	4100	Not Detected	22000	Not Detected
1,2-Dichloropropane	4100	Not Detected	19000	Not Detected
1,4-Dioxane	16000	Not Detected	58000	Not Detected
Bromodichloromethane	4100	Not Detected	27000	Not Detected
cis-1,3-Dichloropropene	4100	Not Detected	18000	Not Detected
4-Methyl-2-pentanone	4100	Not Detected	17000	Not Detected
Toluene	4100	9800	15000	37000
trans-1,3-Dichloropropene	4100	Not Detected	18000	Not Detected
1,1,2-Trichloroethane	4100	Not Detected	22000	Not Detected
Tetrachloroethene	4100	Not Detected	28000	Not Detected

Client Sample ID: VMP-3-22-092010

Lab ID#: 1009448A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092731	Date of Collection:	9/20/10 11:07:00 AM	
Dil. Factor:	813	Date of Analysis:	9/28/10 12:05 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	16000	Not Detected	67000	Not Detected
Dibromochloromethane	4100	Not Detected	35000	Not Detected
1,2-Dibromoethane (EDB)	4100	Not Detected	31000	Not Detected
Chlorobenzene	4100	Not Detected	19000	Not Detected
Ethyl Benzene	4100	2200 J	18000	9400 J
m,p-Xylene	4100	6100	18000	26000
o-Xylene	4100	2500 J	18000	11000 J
Styrene	4100	Not Detected	17000	Not Detected
Bromoform	4100	Not Detected	42000	Not Detected
Cumene	4100	2800 J	20000	14000 J
1,1,2,2-Tetrachloroethane	4100	Not Detected	28000	Not Detected
Propylbenzene	4100	5900	20000	29000
4-Ethyltoluene	4100	1600 J	20000	7700 J
1,3,5-Trimethylbenzene	4100	Not Detected	20000	Not Detected
1,2,4-Trimethylbenzene	4100	1100 J	20000	5300 J
1,3-Dichlorobenzene	4100	Not Detected	24000	Not Detected
1,4-Dichlorobenzene	4100	Not Detected	24000	Not Detected
alpha-Chlorotoluene	4100	Not Detected	21000	Not Detected
1,2-Dichlorobenzene	4100	Not Detected	24000	Not Detected
1,2,4-Trichlorobenzene	16000	Not Detected	120000	Not Detected
Hexachlorobutadiene	16000	Not Detected	170000	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: Lab Blank

Lab ID#: 1009448A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092705a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	9/27/10 04:17 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1009448A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092705a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/27/10 04:17 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: CCV

Lab ID#: 1009448A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/27/10 02:15 AM

Compound	%Recovery
Freon 12	99
Freon 114	103
Chloromethane	112
Vinyl Chloride	111
1,3-Butadiene	108
Bromomethane	109
Chloroethane	112
Freon 11	102
Ethanol	100
Freon 113	102
1,1-Dichloroethene	106
Acetone	106
2-Propanol	113
Carbon Disulfide	112
3-Chloropropene	110
Methylene Chloride	112
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	108
Hexane	109
1,1-Dichloroethane	109
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	107
Tetrahydrofuran	107
Chloroform	105
1,1,1-Trichloroethane	103
Cyclohexane	106
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	108
Benzene	110
1,2-Dichloroethane	108
Heptane	108
Trichloroethene	104
1,2-Dichloropropane	110
1,4-Dioxane	104
Bromodichloromethane	105
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	103
Toluene	105
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	103
Tetrachloroethene	99

Client Sample ID: CCV

Lab ID#: 1009448A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092702	Date of Collection: NA
DIL. Factor:	1.00	Date of Analysis: 9/27/10 02:15 AM

Compound	%Recovery
2-Hexanone	97
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	102
Chlorobenzene	103
Ethyl Benzene	102
m,p-Xylene	100
o-Xylene	100
Styrene	106
Bromoform	99
Cumene	105
1,1,2,2-Tetrachloroethane	104
Propylbenzene	104
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	118
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	113

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 1009448A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/27/10 02:54 AM

Compound	%Recovery
Freon 12	94
Freon 114	100
Chloromethane	107
Vinyl Chloride	104
1,3-Butadiene	105
Bromomethane	104
Chloroethane	106
Freon 11	98
Ethanol	93
Freon 113	88
1,1-Dichloroethene	91
Acetone	98
2-Propanol	89
Carbon Disulfide	106
3-Chloropropene	101
Methylene Chloride	100
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	103
Hexane	103
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	100
Tetrahydrofuran	101
Chloroform	97
1,1,1-Trichloroethane	96
Cyclohexane	101
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	104
Benzene	103
1,2-Dichloroethane	100
Heptane	101
Trichloroethene	98
1,2-Dichloropropane	104
1,4-Dioxane	97
Bromodichloromethane	99
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	96
Toluene	96
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	101
Tetrachloroethene	94

Client Sample ID: LCS

Lab ID#: 1009448A-05A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/27/10 02:54 AM

Compound	%Recovery
2-Hexanone	94
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	104
Chlorobenzene	100
Ethyl Benzene	100
m,p-Xylene	98
o-Xylene	97
Styrene	102
Bromoform	96
Cumene	99
1,1,2,2-Tetrachloroethane	103
Propylbenzene	100
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	113

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1009448A-05AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/27/10 03:15 AM

Compound	%Recovery
Freon 12	96
Freon 114	101
Chloromethane	109
Vinyl Chloride	108
1,3-Butadiene	108
Bromomethane	104
Chloroethane	107
Freon 11	100
Ethanol	93
Freon 113	88
1,1-Dichloroethene	92
Acetone	100
2-Propanol	92
Carbon Disulfide	108
3-Chloropropene	103
Methylene Chloride	101
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	105
Hexane	104
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	102
Tetrahydrofuran	104
Chloroform	102
1,1,1-Trichloroethane	98
Cyclohexane	102
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	106
Benzene	105
1,2-Dichloroethane	100
Heptane	104
Trichloroethene	101
1,2-Dichloropropane	105
1,4-Dioxane	99
Bromodichloromethane	100
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	98
Toluene	97
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	102
Tetrachloroethene	97

Client Sample ID: LCSD

Lab ID#: 1009448A-05AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b092704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/27/10 03:15 AM

Compound	%Recovery
2-Hexanone	97
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	107
Chlorobenzene	103
Ethyl Benzene	103
m,p-Xylene	101
o-Xylene	99
Styrene	106
Bromoform	100
Cumene	101
1,1,2,2-Tetrachloroethane	107
Propylbenzene	103
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	119
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	107
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	119

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

Page 1 of 1

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) 457-4922

Project Info: P.O. # _____ Project # 21562241, 0900041 Project Name <i>Exhaust Dryer</i> <i>Flare</i>	Turn Around Time: ☐ Normal ☐ Rush	Car Use Only Pressurized by _____ Date _____ Pressurization Gas _____ N He

Page 1 of 1

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes: - 14 Day Due - Report Issues before RL and RPL - Load IT @ 2:00P
	9/30/10 1:500	FedEx		
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	
		Monica Green	9/20/10	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	
				9/20

Notes:

- 14 Day Dist
- Report issues between RL and MDL
- Launch III Group

Form 1283 rev. 11

10/4/2010
Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis MO 63110

Project Name: Roxana Dissolved Phase
Project #:
Workorder #: 1009448B

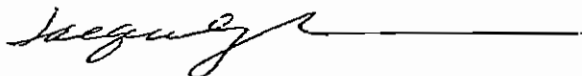
Dear Mr. Jeff Adams

The following report includes the data for the above referenced project for sample(s) received on 9/21/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jacquelyn Luta at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jacquelyn Luta
Project Manager

WORK ORDER #: 1009448B

Work Order Summary

CLIENT: Mr. Jeff Adams
URS Corporation
1001 Highlands Plaza Dr. West
Suite 300
St. Louis, MO 63110

BILL TO: Accounts Payable Austin
URS Corporation
P.O. BOX 203970
Austin, TX 78720-1088

PHONE: 314-429-0100

FAX:

DATE RECEIVED: 09/21/2010

DATE COMPLETED: 10/04/2010

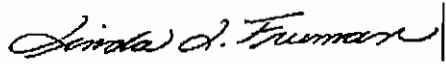
P.O. # 21562289.00011

PROJECT # Roxana Dissolved Phase

CONTACT: Jacquelyn Luta

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VMP-3-10-092010 //	Modified ASTM D-1946	5.6 "Hg	15 psi
02A	VMP-3-22-092010 //	Modified ASTM D-1946	5.2 "Hg	15 psi
03A	Lab Blank	Modified ASTM D-1946	NA	NA
03B	Lab Blank	Modified ASTM D-1946	NA	NA
04A	LCS	Modified ASTM D-1946	NA	NA
04AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 10/04/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified ASTM D-1946
URS Corporation
Workorder# 1009448B**

Two 1 Liter Summa Canister samples were received on September 21, 2010. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should <i>not be analyzed</i> by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VMP-3-10-092010

Lab ID#: 1009448B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.9
Nitrogen	0.25	58
Methane	0.00025	26
Carbon Dioxide	0.025	8.3
Ethane	0.0025	0.011
Helium	0.12	0.0 ND - 0.0008 "u"

Client Sample ID: VMP-3-22-092010

Lab ID#: 1009448B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.1
Nitrogen	0.24	52
Carbon Dioxide	0.024	8.0
Ethane	0.0024	0.013
Helium	0.12	0.0 ND - 0.0009 "u"

Client Sample ID: VMP-3-10-092010

Lab ID#: 1009448B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093011	Date of Collection: 9/20/10 12:16:00 PM
Dil. Factor:	2.48	Date of Analysis: 9/30/10 09:27 AM
Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	2.9
Nitrogen	0.25	58
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	26
Carbon Dioxide	0.025	8.3
Ethane	0.0025	0.011
Ethene	0.0025	Not Detected
Helium	0.12	0.0 ND 0.0005 U

J = Estimated value.

Container Type: 1 Liter Summa Canister

Client Sample ID: VMP-3-22-092010

Lab ID#: 1009448B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093012	Date of Collection: 9/20/10 11:07:00 AM
Dil. Factor:	2.44	Date of Analysis: 9/30/10 09:52 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.1
Nitrogen	0.24	52
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	Not Detected
Carbon Dioxide	0.024	8.0
Ethane	0.0024	0.013
Ethene	0.0024	Not Detected
Helium	0.12	0.0005

0.0005 "u"

J = Estimated value.

Container Type: 1 Liter Summa Canister



Client Sample ID: Lab Blank

Lab ID#: 1009448B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093006a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/30/10 04:38 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.0099 J
Nitrogen	0.10	0.053 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1009448B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093005ba	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/30/10 04:17 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	0.0041 J

J = Estimated value.

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1009448B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/30/10 03:05 AM

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	100
Methane	99
Carbon Dioxide	99
Ethane	101
Ethene	100
Helium	94

Container Type: NA - Not Applicable



Client Sample ID: LCSD

Lab ID#: 1009448B-04AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9093031	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/30/10 06:55 PM

Compound	%Recovery
Oxygen	98
Nitrogen	100
Carbon Monoxide	102
Methane	102
Carbon Dioxide	99
Ethane	104
Ethene	103
Helium	96

Container Type: NA - Not Applicable



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) 467-4992

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TABLE E-1
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS - VOCs

Location	Depth	Sample Date	Sample ID	Acetone	Allyl chloride	Benzene	Bromodichloromethane	Bromoform	Bromomethane	1,3-Butadiene	2-Butanone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cyclohexane	alpha-Chlorotoluene	Dibromochloromethane	Dichlorodifluoromethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropane	trans-1,3-Dichloropropane	1,4-Dioxane	Ethanol	Ethylbenzene	4-Ethyltoluene				
VMP-1	5 ft	8/25/2010	VMP-1-5-082510	0.068	< 0.053	0.044	< 0.028	< 0.044	< 0.016	< 0.0094	0.0066 J	0.0035 J	< 0.027	< 0.02	< 0.011	< 0.021	< 0.035	0.02	< 0.022	< 0.033	< 0.026	< 0.026	< 0.026	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
	8.5 ft	8/25/2010	VMP-1-8.5-082510	0.054 J	< 0.16	0.0079 J	< 0.086	< 0.13	< 0.05	< 0.028	< 0.038	0.019 J	< 0.081	< 0.059	< 0.034	< 0.063	< 0.11	< 0.044	< 0.066	< 0.11	< 0.064	< 0.099	< 0.077	< 0.077	< 0.077	< 0.052	< 0.051	< 0.052	< 0.051	< 0.051	< 0.059	< 0.058	< 0.058	< 0.18	< 0.097	< 0.056	< 0.063				
	23.5 ft	8/30/2010	VMP-1-23.5-083010	< 4.3	< 5.6	1.4	< 3	< 4.6	< 1.7	< 0.99	< 1.3	< 1.4	< 2.8	< 2.1	< 1.2	< 2.2	< 3.7	130	< 2.3	< 3.8	< 2.2	< 3.4	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.1	< 2	< 2	< 6.5	< 3.4	< 1.9	< 2.2				
VMP-2	5 ft	8/31/2010	VMP-2-5-083110	< 4.3	< 5.6	0.89 J	< 3	< 4.6	< 1.7	< 0.99	< 1.3	< 1.4	< 2.8	< 2.1	< 1.2	< 2.2	< 3.7	28	< 2.3	< 3.8	< 2.2	< 3.4	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.1	< 2	< 2	< 6.5	< 3.4	< 1.9	< 2.2				
	8.5 ft	8/31/2010	VMP-2-8.5-083110	< 4.4	< 5.8	1.4	< 3.1	< 4.8	< 1.8	< 1	< 1.4	< 1.4	< 2.9	< 2.1	< 1.2	< 2.2	< 3.8	57	< 2.4	< 3.9	< 2.3	< 3.5	< 2.8	< 2.8	< 2.8	< 1.9	< 1.8	< 1.9	< 1.8	< 1.8	< 2.1	< 2.1	< 2.1	< 6.6	< 3.5	< 2	< 2.3				
	22 ft	8/31/2010	VMP-2-22-083110	< 6.7	< 8.8	1.7 J	< 4.7	< 7.3	< 2.7	< 1.6	< 2.1	< 2.2	< 4.4	< 3.2	< 1.9	< 3.4	< 5.8	81	< 3.6	< 6	< 3.5	< 5.4	< 4.2	< 4.2	< 4.2	< 2.8	< 2.8	< 2.8	< 2.8	< 3.2	< 3.2	< 3.2	< 10	< 5.3	< 3.1	< 3.5					
VMP-3	5 ft	9/9/2010	VMP-3-5-090910	< 13	< 17	7.8	< 8.9	< 14	< 5.2	< 2.9	< 3.9	< 4.1	< 8.4	< 6.1	< 3.5	< 6.5	< 11	210	< 6.9	< 11	< 6.6	< 10	< 8	< 8	< 8	< 5.4	< 5.3	< 5.4	< 5.3	< 5.3	< 6.1	< 6	< 6	< 19	< 10	< 5.8	< 6.5				
	10 ft	9/10/2010	VMP-3-10-091010	8.9 J	< 53	14	< 28	< 44	< 16	< 9.4	< 12	< 13	< 27	< 20	< 11	< 21	< 35	970	< 22	< 36	< 21	< 33	< 26	< 26	< 26	< 17	< 17	< 17	< 17	< 20	< 19	< 19	< 61	< 32	< 18	< 21					
		9/20/2010	VMP-3-10-092010	< 29	< 39	9 J	< 21	< 32	< 12	< 6.8	< 9.1	< 9.6	< 20	< 14	< 8.2	< 15	< 26	840	< 16	< 26	< 15	< 24	< 19	< 19	< 19	< 12	< 12	< 12	< 12	< 14	< 14	< 14	< 45	< 23	< 13	< 15					
	22 ft	9/20/2010	VMP-3-22-092010	< 39	< 51	34	< 27	< 42	< 16	< 9	< 12	< 13	< 26	< 19	< 11	< 20	< 34	1100	< 21	< 35	< 20	< 31	< 24	< 24	< 24	< 16	< 16	< 16	< 16	< 16	< 19	< 18	< 18	< 58	< 31	9.4 J	7.7 J				
	31.5 ft	9/9/2010	VMP-3-31.5-090910	< 72	< 95	210	< 51	< 78	< 30	< 17	< 22	< 24	< 48	< 35	< 20	< 37	< 63	1100	< 39	< 65	< 38	< 58	< 46	< 46	< 46	< 31	< 30	< 31	< 30	< 30	< 35	< 34	< 34	< 110	< 57	57	53				
VMP-4	5 ft	8/25/2010	VMP-4-5-082510	< 0.68	< 0.9	0.27	< 0.48	< 0.74	< 0.28	< 0.16	< 0.21	< 0.22	< 0.45	< 0.33	< 0.19	< 0.35	< 0.59	40	< 0.37	< 0.61	< 0.36	< 0.55	< 0.43	< 0.43	< 0.43	< 0.29	< 0.28	< 0.29	< 0.28	< 0.28	< 0.33	< 0.33	< 0.33	< 1	< 0.54	< 0.31	0.061 J				
	12 ft	8/25/2010	VMP-4-12-082510	< 12	< 16	28	< 8.4	< 13	< 4.8	< 2.8	< 3.7	< 3.9	< 7.9	< 5.8	< 3.3	< 6.2	< 10	880	< 6.5	< 11	< 6.2	< 9.7	< 7.6	< 7.6	< 7.6	< 5.1	< 5	< 5.1	< 5	< 5	< 5.8	< 5.7	< 5.7	< 18	< 9.5	7.8	3.6 J				
	23.5 ft	8/31/2010	VMP-4-23.5-083110	< 14	< 18	490 J	< 9.7	< 15	< 5.6	< 3.2	< 4.3	< 4.5	< 9.1	< 6.6	< 3.8	< 7	< 12	3000 J	< 7.5	< 12	< 7.1	< 11	< 8.7	< 8.7	< 8.7	< 5.8	< 5.7	< 5.8	< 5.7	< 5.7	< 6.7	< 6.6	< 6.6	< 21	< 11	960 J	230 J				
VMP-5	5 ft	9/9/2010	VMP-5-5-090910	< 25	< 33	7.6 J	< 18	< 27	< 10	< 5.8	< 7.8	< 8.2	< 17	< 12	< 7	< 13	< 22	400	< 14	< 22	< 13	< 20	< 16	< 16	< 16	< 11	< 10	< 11	< 10	< 10	< 12	< 12	< 38	< 20	< 11	20					
	12.5 ft	9/9/2010	VMP-5-12.5-090910	7.6 J	< 16	11	< 8.8	< 14	< 5.1	< 2.9	< 3.9	< 4.1	< 8.3	< 6.1	< 3.5	< 6.4	< 11	360	< 6.8	< 11	< 6.5	< 10	< 7.9	< 7.9	< 7.9	< 5.3	< 5.2	< 5.3	< 5.2	< 5.2	< 6.1	< 6	< 6	< 19	< 9.9	< 5.7	9.2				
	31 ft	9/9/2010	VMP-5-31-090910	< 52	< 69	200	< 37	< 57	< 21	< 12	< 16	< 17	< 35	< 25	< 14	< 27	< 45	1600	< 28	< 47	< 27	< 42	< 33	< 33	< 33	< 22	< 22	< 22	< 22	< 22	< 25	< 25	< 79	< 41	< 24	< 27					
VMP-6	5 ft	9/8/2010	VMP-6-5-090810	< 2.1	< 2.8	1	< 1.5	< 2.3	< 0.85	< 0.49	< 0.65	< 0.68	< 1.4	< 1	< 0.58	< 1.1	< 1.8	76	< 1.1	< 1.9	< 1.1	< 1.7	< 1.3	< 1.3	< 1.3	< 0.89	< 0.87	< 0.89	< 0.87	< 0.87	< 1	< 1	< 1	< 3.2	< 1.6	< 0.96	1 J				
	10 ft	9/8/2010	VMP-6-10-090810	< 2.3	< 3	2.9 J	< 1.6	< 2.5	< 0.92	< 0.53	< 0.7	< 0.74	< 1.5	< 1.1	< 0.63	< 1.2	< 2	240 J	< 1.2	< 2	< 1.2	< 1.8	< 1.4	< 1.4	< 1.4	< 0.96	< 0.94	< 0.96	< 0.94	< 0.94	< 1.1	< 1.1	< 1.1	< 3.4	< 1.8	0.68 J J	0.9 J J				
	31.5 ft	9/8/2010	VMP-6-31.5-090810	< 15	< 20	29	< 11	< 17	< 6.2	< 3.6	< 4.7	< 5	< 10	< 7.4	< 4.2	< 7.9	< 13	1000	< 8.3	< 14	< 8	< 12	< 9.7	< 9.7	< 9.7	< 6.5	< 6.4	< 6.5	< 6.4	< 6.4	< 7.4	< 7.3	< 7.3	< 23	< 12	160	16				
VMP-7	5 ft	8/26/2010	VMP-7-5-082610	0.026	< 0.016	0.012	< 0.0088	< 0.014	< 0.0051	< 0.0029	0.006	0.0028 J	< 0.0083	< 0.0061	< 0.0035	< 0.0064	< 0.011	0.016	< 0.0068	< 0.011	0.0033 J	< 0.001	< 0.0079	< 0.0079	< 0.0079	< 0.0053	< 0.0052	< 0.0053	< 0.0052	< 0.0061	< 0.006	< 0.006	< 0.019	0.007 J	< 0.0057	< 0.0065					
	13.5 ft	8/26/2010	VMP-7-13.5-082610	< 0.27	< 0.36	0.15	< 0.19	< 0.3	< 0.11	< 0.064	< 0.085	< 0.09	< 0.18	< 0.13	< 0.076	< 0.14	< 0.24	< 0.099	< 0.15	< 0.25	< 0.14	< 0.22	< 0.17	< 0.17	< 0.17	< 0.12	< 0.11	< 0.12	< 0.11	< 0.11	< 0.13	< 0.13	< 0.13	< 0.42	< 0.22	< 0.12	< 0.14				
	29.5 ft	8/31/2010	VMP-7-29.5-083110	< 3.9	< 5.2	86 J	< 2.8	< 4.2	< 1.6	< 0.91	< 1.2	< 1.3	< 2.6	< 1.9	< 1.1	< 2	< 3.4	540 J	< 2.1	< 3.5	< 2	< 3.2	< 2.5	< 2.5	< 1.7	< 1.6	< 1.7	< 1.6	< 1.6	< 1.9	< 1.9	< 5.9	< 3.1	< 1.8	< 2						
VMP-8	5 ft	8/30/2010	VMP-8-5-083010	0.043	< 0.017	0.021	< 0.009	< 0.014	0.008	< 0.003	0.015	0.0032 J	< 0.0085	0.0032 J	< 0.0035	0.0039 J	< 0.011	< 0.0046	0.0018 J J	< 0.011	0.0026 J	0.0015 J	0.0034 J	0.0038 J	0.0046 J	0.00069 J	< 0.0053	0.00092 J	0.0012 J	< 0.0053	< 0.0062	< 0.0061	< 0.0061	< 0.019	< 0.01	< 0.0058	0.0014 J				
	9.5 ft	8/30/2010	VMP-8-9.5-083010	0.04	< 0.015	0.015 J	< 0.0081	< 0.012	0.0068	< 0.0027	0.0061	0.0012 J	< 0.0076	0.0027 J	< 0.0032	< 0.0059	< 0.01	< 0.0042	< 0.0063	< 0.01	0.0024 J	< 0.0093	< 0.0073	0.0025 J	0.0029 J	0.00048 J	< 0.0048	< 0.0049	0.00059 J	< 0.0048	< 0.0056	< 0.0055	< 0.0055	< 0.017	0.016	< 0.0052	0.0011 J				
		8/30/2010	VMP-8-9.5-083010-DUP	0.041	< 0.015	0.012 J	< 0.0083	< 0.013	0.0079	< 0.0027	0.0097	0.0012 J	< 0.0078	0.0028 J	< 0.0032	0.00094 J	< 0.01	< 0.0042	< 0.0064	< 0.01	0.0024 J	< 0.0095	< 0.0074	0.0021 J	0.0026 J	0.00041 J	< 0.0049	0.0007 J	< 0.0049	0.00099 J	< 0.0056	< 0.0056	< 0.018	0.013	< 0.0054	< 0.0061					
	23.5 ft	8/30/2010	VMP-8-23.5-083010	0.02	< 0.016	0.013	< 0.0088	< 0.014	< 0.0051	< 0.0029	0.0044	0.0015 J	< 0.0093	0.003 J	< 0.0035	< 0.0064	< 0.011	0.002 J	< 0.0068	< 0.011	0.0028 J	< 0.01	< 0.0079	0.0021 J	0.0026 J	< 0.0053	< 0.0052	0.00085 J	0.00085 J	< 0.0052	< 0.0061	< 0.006	< 0.006	< 0.019	0.0069 J	< 0.0057	< 0.0065				
VMP-9	5 ft	8/26/2010	VMP-9-5-082610	0.029	< 0.014	0.0088	< 0.0076	< 0.012	< 0.0044	< 0.0025	0.0053	0.0019 J	< 0.0072	< 0.0052	< 0.003	< 0.0056	< 0.0094	0.011	< 0.0059	< 0.0097	0.003 J	< 0.0088	< 0.0068	< 0.0068	< 0.0068	< 0.0046	< 0.0045	< 0.0046	< 0.0045	< 0.0045	< 0.0053	< 0.0									

TABLE E-1
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS - VOCs

				Freon 113	Freon 114	Heptane	Hexachlorobutadiene	Hexane	2-Hexanone	Isopropylbenzene	4-Methyl-2-pentanone	Methyl tert-Butyl Ether	Methylene chloride	2-Propanol	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichlorofluoromethane	Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	Vinyl chloride	m,p-Xylene	o-Xylene
Location	Depth	Sample Date	Sample ID	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)
VMP-1	5 ft	8/25/2010	VMP-1-5-082510	< 0.032	< 0.03	< 0.017	< 0.18	0.025	< 0.07	< 0.021	< 0.017	< 0.015	< 0.015	< 0.042	< 0.021	< 0.018	< 0.029	< 0.029	< 0.012	0.0031 J	< 0.13	< 0.023	< 0.023	< 0.024	< 0.023	< 0.021	< 0.021	0.74	< 0.011	0.0024 J	< 0.018
	8.5 ft	8/25/2010	VMP-1-8.5-082510	< 0.098	< 0.09	< 0.053	< 0.55	< 0.045	< 0.21	< 0.063	< 0.053	< 0.046	< 0.045	< 0.13	< 0.063	< 0.055	< 0.087	< 0.088	< 0.038	< 0.048	< 0.38	< 0.07	< 0.07	< 0.072	< 0.069	< 0.063	< 0.063	4.2	< 0.033	< 0.056	< 0.056
	23.5 ft	8/30/2010	VMP-1-23.5-083010	< 3.4	< 3.1	44	< 19	260	< 7.3	< 2.2	< 1.8	< 1.6	< 1.6	< 4.4	< 2.2	< 1.9	< 3	< 3.1	< 1.3	< 1.7	< 13	< 2.4	< 2.4	< 2.5	< 2.4	< 2.2	< 2.2	1600	< 1.1	< 1.9	< 1.9
VMP-2	5 ft	8/31/2010	VMP-2-5-083110	< 3.4	< 3.1	< 1.8	< 19	< 1.6	< 7.3	< 2.2	< 1.8	< 1.6	< 1.6	< 4.4	< 2.2	< 1.9	< 3	< 3.1	< 1.3	< 1.7	< 13	< 2.4	< 2.4	< 2.5	< 2.4	< 2.2	< 2.2	1300	< 1.1	< 1.9	< 1.9
	8.5 ft	8/31/2010	VMP-2-8.5-083110	< 3.5	< 3.2	< 1.9	< 20	38	< 7.5	< 2.3	< 1.9	< 1.6	< 1.6	< 4.5	< 2.3	< 2	< 3.1	< 3.2	< 1.4	< 1.7	< 14	< 2.5	< 2.5	< 2.6	< 2.5	< 2.3	< 2.3	2000	< 1.2	< 2	< 2
	22 ft	8/31/2010	VMP-2-22-083110	< 5.4	< 4.9	< 2.9	< 30	63	< 12	< 3.5	< 2.9	< 2.5	< 2.4	< 6.9	< 3.5	< 3	< 4.8	< 4.8	< 2.1	< 2.6	< 21	< 3.8	< 3.8	< 4	< 3.8	< 3.5	< 3.5	2300	< 1.8	< 3.1	< 3.1
VMP-3	5 ft	9/9/2010	VMP-3-5-090910	< 10	< 9.3	4.8 J	< 57	110	< 22	< 6.5	< 5.4	< 4.8	< 4.6	< 13	< 6.5	< 5.7	< 9	< 9.1	< 3.9	< 5	< 39	< 7.2	< 7.2	< 7.5	< 7.1	< 6.5	< 6.5	1200	< 3.4	< 5.8	< 5.8
	10 ft	9/10/2010	VMP-3-10-091010	< 32	< 30	87	< 180	1100	< 70	5 J	< 17	< 15	< 15	< 42	7.2 J	< 18	< 29	< 29	< 12	< 16	< 130	< 23	< 23	< 24	< 23	< 21	< 21	3000	< 11	< 18	< 18
		9/20/2010	VMP-3-10-092010	< 24	< 22	48	< 130	660	< 51	< 15	< 13	< 11	< 11	< 30	4.4 J	< 13	< 21	< 21	< 9.1	9.9 J	< 92	< 17	< 17	< 17	< 17	< 15	< 15	2400	< 7.9	6.6 J	< 13
	22 ft	9/20/2010	VMP-3-22-092010	< 31	< 28	130	< 170	1500	< 67	14 J	< 17	< 15	< 14	< 40	29	< 17	< 28	< 28	< 12	37	< 120	< 22	< 22	< 23	< 22	5.3 J	< 20	3200	< 10	26	11 J
VMP-4	31.5 ft	9/9/2010	VMP-3-31.5-090910	< 58	< 53	1100	< 320	25000	< 120	< 37	< 31	< 27	< 26	< 75	17 J	< 32	< 52	< 52	< 22	17 J	< 220	< 41	< 41	< 43	< 41	38	17 J	8300	< 19	87	26 J
	5 ft	8/25/2010	VMP-4-5-082510	< 0.55	< 0.5	1.7	< 3.1	13	< 1.2	0.048 J	< 0.29	< 0.26	< 0.25	< 0.71	0.058 J	< 0.31	< 0.49	< 0.49	< 0.21	< 0.27	< 2.1	< 0.39	< 0.39	< 0.4	< 0.39	0.054 J	< 0.35	220	< 0.18	< 0.31	0.31
	12 ft	8/25/2010	VMP-4-12-082510	< 9.6	< 8.8	420	< 54	1200	< 21	3.6 J	< 5.2	< 4.5	< 4.4	< 12	4.2 J	< 5.4	< 8.5	< 8.6	< 3.7	< 4.7	< 37	< 6.9	< 6.9	< 7.1	< 6.8	1.8 J	1.5 J	1400	< 3.2	5.6	< 5.5
	23.5 ft	8/31/2010	VMP-4-23.5-083110	< 11	< 10	4100 J	< 62	13000 J	< 24	38 J	< 5.9	< 5.2	< 5	< 14	69 J	< 6.2	< 9.8	< 9.9	< 4.3	2000 J	< 43	< 7.9	< 7.9	< 8.1	< 7.8	190 J	66 J	5800 J	< 3.7	1800 J	600 J
VMP-5	5 ft	9/9/2010	VMP-5-5-090910	< 20	< 18	140	< 110	1500	< 43	< 13	< 11	< 9.5	< 9.2	< 26	4.8 J	< 11	< 18	< 18	< 7.8	< 9.9	< 78	< 14	< 14	< 15	< 14	13	6.9 J	1600	< 6.7	9 J	6.4 J
	12.5 ft	9/9/2010	VMP-5-12.5-090910	< 10	< 9.2	120	< 56	1300	< 22	< 6.5	< 5.4	< 4.8	< 4.6	< 13	2.1 J	< 5.6	< 9	< 9.1	< 3.9	< 5	< 39	< 7.2	< 7.2	< 7.4	< 7.1	6.1 J	3 J	1500	< 3.4	3.2 J	2.2 J
	31 ft	9/9/2010	VMP-5-31-090910	< 42	< 38	1300	< 230	7700	< 90	< 27	< 22	< 20	< 19	< 54	< 27	< 23	< 37	< 38	< 16	4.3 J	< 160	< 30	< 30	< 31	< 30	< 27	< 27	4400	< 14	7.7 J	< 24
VMP-6	5 ft	9/8/2010	VMP-6-5-090810	< 1.7	< 1.5	43	< 9.4	130	< 3.6	< 1.1	< 0.9	< 0.79	< 0.76	< 2.2	< 1.1	< 0.94	< 1.5	< 1.5	< 0.65	< 0.83	< 6.5	< 1.2	< 1.2	< 1.2	< 1.2	0.74 J	0.34 J	340	< 0.56	0.47 J	0.33 J
	10 ft	9/8/2010	VMP-6-10-090810	< 1.8	< 1.7	160 J	< 10	400 J	< 3.9	0.54 J J	< 0.97	< 0.86	< 0.83	< 2.3	0.73 J J	< 1	< 1.6	< 1.6	< 0.7	< 0.9	< 7.1	< 1.3	< 1.3	< 1.3	< 1.3	0.62 J J	0.29 J J	930 J	< 0.61	0.83 J J	0.32 J J
	31.5 ft	9/8/2010	VMP-6-31.5-090810	< 12	< 11	1900	< 69	3200	< 26	19	< 6.6	< 5.8	< 5.6	4 J	42	< 6.8	< 11	< 11	< 4.7	< 6.1	< 48	< 8.8	< 8.8	< 9	< 8.6	22	5.3 J	3100	< 4.1	51 J	< 7
VMP-7	5 ft	8/26/2010	VMP-7-5-082610	< 0.01	< 0.0092	0.0044 J	< 0.056	0.016	< 0.022	< 0.0065	< 0.0054	< 0.0048	0.0023 J	0.0064 J	< 0.0065	< 0.0056	< 0.009	< 0.0091	< 0.0039	0.0012 J	< 0.039	< 0.0072	< 0.0072	0.0016 J	< 0.0071	< 0.0065	< 0.0065	0.034	< 0.0034	0.00071 J	< 0.0057
	13.5 ft	8/26/2010	VMP-7-13.5-082610	< 0.22	< 0.2	< 0.12	< 1.2	0.035 J	< 0.47	0.015 J	< 0.12	< 0.1	< 0.1	< 0.28	< 0.14	< 0.12	< 0.2	< 0.2	< 0.085	< 0.11	< 0.86	< 0.16	< 0.16	< 0.16	< 0.16	< 0.14	< 0.14	240 E J	< 0.074	< 0.12	< 0.12
	29.5 ft	8/31/2010	VMP-7-29.5-083110	< 3.2	< 2.9	420 J	< 18	420 J	< 6.7	6 J	< 1.7	< 1.5	< 1.4	< 4	5 J	< 1.8	< 2.8	< 2.8	< 1.2	1 J J	< 12	< 2.2	< 2.2	< 2.3	< 2.2	< 2	< 2	1300 J	< 1	1.6 J J	< 1.8
VMP-8	5 ft	8/30/2010	VMP-8-5-083010	0.0019 J	< 0.0094	0.0019 J	< 0.057	0.0032 J	0.0029 J	< 0.0066	< 0.0055	0.00052 J	0.0026 J	0.013 J	< 0.0066	< 0.0057	0.0048 J	< 0.0092	< 0.004	0.0011 J	0.015 J	0.00087 J	0.0009 J	0.0013 J	0.0027 J	0.0015 J	< 0.0066	0.011	< 0.0034	0.0014 J	< 0.0058
	9.5 ft	8/30/2010	VMP-8-9.5-083010	0.0011 J	< 0.0084	0.0017 J	< 0.052	0.0055	0.0013 J	< 0.0059	< 0.005	0.00039 J	0.005	0.029	< 0.0059	< 0.0052	0.0045 J	< 0.0083	< 0.0036	0.0033 J	0.01 J	<									