# QUARTERLY MONITORING REPORT
# ACTIVE TREATMENT SYSTEMS
# THIRD QUARTER 2004

## AMERICAN CHEMICAL SERVICE NPL SITE
## GRIFFITH, INDIANA

**MWH File No. 2090601**

**Prepared For:**

**American Chemical Service NPL Site RD/RA Executive Committee**
**Griffith, Indiana**

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MWH

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# QUARTERLY MONITORING REPORT FOR ACTIVE TREATMENT SYSTEMS THIRD QUARTER 2004

## AMERICAN CHEMICAL SERVICE NPL SITE GRIFFITH, INDIANA

**Prepared For:**

**American Chemical Service NPL Site RD/RA Executive Committee**
**Griffith, Indiana**

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## ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AS | Air Sparge |
| AMSL | Above Mean Sea Level |
| BOD | Biological Oxygen Demand |
| BW | Barrier Wall |
| BWES | Barrier Wall Extraction System |
| cfm | cubic feet per minute |
| DPE | Dual Phase Extraction |
| EF1 | effluent sample |
| GAC | Granular Activated Carbon |
| Global | Global Engineering, Inc. |
| GWTP | Groundwater Treatment Plant |
| IDEM | Indiana Department of Environmental Management |
| IN1 | influent sample |
| IN2 | duplicate influent sample |
| K-P | Kapica Pazmey |
| lb/hr | Pounds per hour |
| LDC | Laboratory Data Consultants |
| mg/kg | Milligrams per kiligram |
| mg/L | Milligrams per liter |
| NC | Not Calculated |
| ND | Not Detected |
| NE | No Effluent Limit Established |
| NS | Not Sampled |
| OFCA | Off-Site Containment Area |
| PCBs | Polychlorinated Biphenyls |
| ppm | Parts per million |
| PGCS | Perimeter Groundwater Containment System |
| PSVP | Performance Standard Verification Plan |
| QAPP | Quality Assurance Project Plan |
| QA/QC | Quality Assurance/Quality Control |
| SBPA | Still Bottoms Pond Area |
| SVOC | Semi-Volatile Organic Compounds |
| T-102 | Aeration Equalization Tank |
| TOC | Top of Casing |
| TOIC | Top of Inner Casing |
| TOSG | Top of Staff Gauge |
| TSS | Total Suspended Solids |
| µg | Micrograms |
| µg/L | Micrograms per liter |
| U.S. EPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Compounds |
| "Hg | Inches of mercury |
| "$H_2O$ | Inches of water |

# 1.0 INTRODUCTION

MWH, on behalf of the ACS RD/RA Executive Committee, started up the on-site groundwater treatment system at the American Chemical Service NPL Site (ACS Site) in Griffith, Indiana on March 13, 1997. The groundwater treatment plant (GWTP) system was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, a UV oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater before it was released to the wetlands west of the site.

In 2001, the GWTP was upgraded and an activated sludge treatment unit was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required to treat the water. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals.

In the fall of 2001, MWH began construction of an In-Situ Vapor Extraction (ISVE) system for the Off-Site Containment Area (OFCA) and the Kapica-Pazmey (K-P) Area, both within the area known as the Off-Site Area. The Off-Site Area ISVE system consists of 42 ISVE wells, a blower system, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. The construction of the system was completed in March 2002 and the system was started on May 1, 2002 after the startup of the thermal oxidizer and scrubber system was completed. Protocols and goals for the phased startup of the Off-Site System as defined in the Final Remedy (Montgomery Watson, 1999) were followed. In 2004, an additional blower system was added to the Off-Site Area ISVE system.

In the beginning of 2003, MWH began construction of an ISVE system for the Still Bottoms Pond Area (SBPA). The SBPA ISVE system consists of 25 ISVE wells, 21 dual phase extraction (DPE) wells, six air sparge wells, ISVE and air sparge blower systems, and the associated mechanical and electrical components. The construction of the system was completed and the system was started in July of 2003. A new thermal oxidizer/scrubber unit was installed in the GWTP in the spring of 2003. The new unit was installed to treat vapors from both ISVE systems.

This Active Treatment Systems report summarizes GWTP effluent analytical data, catalytic oxidizer/scrubber (annually) and thermal oxidizer off-gas analytical data, ISVE process monitoring data, and water level gauging data collected from July 2004 through September 2004. The report also details modifications and upgrades that were made to the active treatment systems during the reporting period.

# 2.0 GWTP COMPLIANCE MONITORING

## 2.1 INTRODUCTION

Effluent samples from the treatment system are collected on a regular schedule to demonstrate compliance with the discharge limits (Table 2.1) established by Indiana Department of Environmental Management (IDEM) and United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan (PSVP) (Montgomery Watson, July 1997) requires quarterly effluent sampling for biological oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for pH and VOCs, as tabulated below.

Sampling and analyses were performed in accordance with the approved Quality Assurance Project Plan (QAPP) (Montgomery Watson Harza, November 2001). Quality control measures were also instituted in accordance with the PSVP. The following table and paragraphs present details on sampling and analyses and also summarize the analytical data for the treatment system effluent.

**Sampling Frequency Schedule – Groundwater Treatment System**

| Analytes | Cumulative Time From Startup* | Frequency |
|---|---|---|
| Flowrate | – | Continuous |
| BOD, TSS, SVOCs and Metals | 181 days onward | Once per quarter |
| VOCs and pH | 31 days onward | Once per month |
| PCBs | 181 days onward | Once per quarter |
| PCBs in Sediment (one location) | – | Once per year |

*Note: System was started up on March 13, 1997

## 2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the third quarter of 2004. Samples were collected on the following dates and analyzed for the listed analytes for this reporting period:

| | |
|---|---|
| July 8, 2004 | full analysis (pH, TSS, BOD, Metals, VOCs, SVOCs, pentachlorophenol, and PCBs) |
| August 12, 2004 | pH and VOCs |
| September 7, 2004 | pH and VOCs |

The samples detailed above were collected directly from a sampling tap on the effluent line of the GWTP. The samples were placed in contaminant-free containers, in accordance with the U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample

Containers (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the temperature of the sample containers was maintained at or below 4° C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

| Parameter | Analytical Method |
|---|---|
| VOCs | SW-846 8260B |
| SVOCs | SW-846 8270C |
| Pentachlorophenol | SW-846 8270C and SIM |
| Pesticides/PCBs | EPA 608/SW-846 8081/8082 |
| Metals (Excluding Mercury) | SW-846 6010 |
| General Water Quality Parameters (TSS and BOD-5) | EPA 160.2 and 405.1 |
| Mercury | SW-846 7470 |
| pH | EPA 150.1 |

## 2.3 EFFLUENT ANALYTICAL RESULTS

### 2.3.1 GWTP Effluent Samples

The GWTP effluent monitoring data, summarized in Table 2.2, verify that the system effluent was compliant with the discharge limits summarized in Table 2.1. No permit exceedences were reported in the July, August, or September samples.

Compuchem Laboratory of Cary, North Carolina performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Table 2.2 and are written in the margin of the analytical data sheets provided in Appendix A.

### 2.3.2 Sediment Sample

Since 1998, MWH has collected an annual sediment sample and associated quality control samples from the GWTP outfall in accordance with the PSVP to help determine if PCB accumulation is occurring at the GWTP discharge location. The annual sediment sample for 2004 was collected on September 27th from the GWTP outfall location, shown on Figure 2.1. The sample was analyzed for PCBs by Compuchem and the data was validated by LDC.

A summary of the analytical data for the annual sediment samples for the past six years are summarized in Table 2.3. Analytical data for the September 2004 sample are included in Appendix B. There were no detections of any of the seven target aroclors in September 2004. This indicates that PCBs are not accumulating at the GWTP outfalls.

## 2.4 CATALYTIC OXIDIZER/SCRUBBER SAMPLING AND ANALYSIS

MWH began eight initial rounds of off-gas sampling of the catalytic oxidizer/scrubber as detailed in the PSVP (Montgomery Watson, April 1997) during April 2002. The eight rounds of sampling were completed during the third quarter of 2002. One sample was collected in October 2002 to verify the continued performance of the system. The off-gas was also sampled in December 2002 after repairs were made to the catalytic oxidizer/scrubber unit to ensure the unit was continuing to work properly. As discussed in the *Progress Report - November 2002 Activities* dated December 9, 2002, the off-gas sample from the catalytic oxidizer/scrubber will be sampled annually, in accordance with IDEM regulations and the PSVP. However, since the vapors generated by the GWTP are being treated by Therm Ox 2 and the catalytic oxidizer is not being operated continuously, annual samples of the catalytic oxidizer are only be collected if the unit operates within that year.

During the third quarter of 2004 the catalytic oxidizer system was operated to treat vapors from aeration tank, T-102, due to maintenance work being performed on both ISVE systems. An off-gas sample was collected from the unit on September 16$^{th}$ and analyzed for VOCs by method TO-14 and SVOCs by method TO-13. The results of this sample are summarized in Tables 2.4 and 2.5 and the analytical data sheets are included in Appendix C. The VOC sample results indicate that the effluent VOC mass is approximately 0.11 pounds per hour (lb/hr). This is below the maximum permitted discharge limit of 3 lb/hr.

# 3.0 ISVE SYSTEM MONITORING

## 3.1 THERMAL OXIDIZER OFF-GAS SAMPLING

The thermal oxidizer/scrubber unit manufactured by Durr Engineering (designated as Therm Ox 1) did not operate during the third quarter 2004 because the unit's heat exchanger was being replaced. The new heat exchanger for the unit was delivered to the Site on September 9, 2004. The mechanical and electrical work for connecting the new heat exchanger was completed at the end of September and the test out of the heat exchanger is planned for October. Therm Ox 1 was not operating during this reporting period; therefore, no samples were collected from this unit.

The second thermal oxidizer/scrubber (therm ox) was manufactured by Global Engineering (Global) and is designated as Therm Ox 2. Therm Ox 2 was installed at the GWTP to treat the vapor collected by the SBPA and Off-Site Area ISVE system. Beginning in the third quarter of 2003, vapors from the SBPA ISVE system were treated by the new unit. Monthly compliance sampling of Therm Ox 2 began in July 2003 when the system was fully operational. In September 2003, the vapors from both the Off-Site Area ISVE and the SBPA ISVE systems were treated by Therm Ox 2. During the third quarter of 2004, compliance samples from Therm Ox 2 were collected on July 27th, August 12th, and September 27th.

Influent and effluent off-gas samples were collected directly from sampling taps on the influent pipe to the thermal oxidizer and the discharge stack of the scrubber. One influent sample (labeled IN1) and one effluent sample (EF1) were collected. A duplicate influent sample (IN2) was also collected. The samples were collected in accordance with laboratory guidelines to comply with the PSVP and QAPP. The VOC samples were collected using a summa canister and the SVOC samples were collected in sorbent tubes.

**Sampling Frequency Schedule – ISVE System**

| | |
|---|---|
| Startup | Weekly for a four week start-up period |
| Post-Startup | Monthly in accordance with the IDEM Air Permit Equivalency |

Following sample collection, the SVOC, sample containers were maintained at or below 4°C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories for extraction and analysis. In accordance with the approved QAPP, the off-gas samples were analyzed by the following analytical methods:

| Parameter | Analytical Method |
|---|---|
| VOCs | TO-14 |
| SVOCs | TO-13 |

## 3.2 SAMPLING RESULTS

The influent and effluent off-gas data from Thermal Oxidizer 2 are summarized in Tables 3.1 and 3.2 and verify that the off-gas from the thermal oxidizer was less than the IDEM discharge limit of three pounds of VOCs per hour for July, August, and September. For example, the VOC discharge reported from the August 12, 2004 sample was 0.79 pounds per hour, approximately twenty six percent of the discharge limit. The results for July and September were within the same general range. The analytical data sheets for the compliance samples are provided in Appendix D.

Air Toxics Laboratories of Folsom, California analyzed the samples. The analytical results are summarized in Tables 3.1 and 3.2. MWH performed data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Tables 3.1 and 3.2 and are written in the margin of the analytical data sheets provided in Appendix D.

## 3.3 ISVE SYSTEM MONITORING

Performance monitoring of the ISVE system was conducted in accordance with the PSVP (Montgomery Watson, June 1999). Extracted vapor flow rates and vacuums at individual ISVE wells and headers were measured and recorded on a routine basis. Additionally, VOC concentrations were measured at individual wells and headers using a photoionization detector (PID).

MWH collected off-gas samples from the Off-Site ISVE system and the SBPA ISVE system influent lines. This data was collected in order to monitor the performance and total VOC removal from both ISVE systems and are not needed to conform with compliance requirements. The data from this monitoring is summarized in Tables 3.3 and 3.4.

The information collected during performance monitoring is used to evaluate and optimize the ISVE systems. Data collected from the Off-Site ISVE system during the third quarter of 2004 is presented in Tables 3.5 and 3.6. Data that was collected from the SBPA ISVE system during the third quarter of 2004 is presented in Tables 3.7 and 3.8.

## 4.0 GWTP TREATMENT SYSTEM PROCESS MODIFICATIONS

On September 1st and 2nd, U.S. Floors applied an epoxy floor coating to the sulfuric acid storage area that was damaged in June when the old sulfuric storage tank leaked. A new 900-gallon sulfuric acid tank was delivered to the Site and placed in the acid storage area on September 3rd. Acid was transferred from the temporary storage tanks to the new tank on September 14th. The remaining acid that could not be transferred to the new tank was shipped as a usable product to General Environmental Management's acid use facility in St. Louis, Missouri.

Extraction wells MW56 and MW10C were offline in September due to malfunction of the pump controllers.

The granular activated carbon (GAC) vessels were changed out on September 27th.

## 5.0 ISVE PROCESS MODIFICATIONS

During the week of July 5, 2004 an epoxy coating was applied to the interior walls of the Therm Ox 1 scrubber unit. On September 9, 2004, a new heat exchanger for Therm Ox 1 was delivered to the Site. The mechanical and electrical connections for the new heat exchanger were completed at the end of September. The start up of the unit is planned for October.

Installation of the expansion equipment for the Off-Site Area ISVE system began in July and was completed at the end of September. Startup of the expanded ISVE system will occur in October.

On August 19th, MWH began the removal and replacement of one ISVE well and one air sparge well in the SBPA area as a part of the system evaluation. Prior to overdrilling, the ISVE wells in the work areas were enabled to remove vapors. The SBPA ISVE system was then shut down just before drilling commenced. The work was completed on August 20th. The results of the tests were summarized in a technical memorandum on the ACS SBPA ISVE System Evaluation that was submitted to the Agencies on September 30th (MWH, September 2004).

## 6.0 PGCS AND BWES GAUGING ACTIVITIES

The PGCS groundwater extraction trenches were operated in "auto" mode during the third quarter of 2004. In "auto" mode, the PGCS extraction wells pump continuously unless there is a low water level in individual extraction wells, a high water level in Aeration Equalization Tank (T-102), or the GWTP is shutdown. This mode is used to control the flowrate through the treatment system while at the same time creating an inward gradient along the PGCS trench. The GWTP also received influent from the On-Site and Off-Site components of the BWES and the SBPA DPE wells during the third quarter of 2004. MW10C and MW56 operated for a majority of the third quarter of 2004; but were taken off-line in September due to inoperable pump controllers.

In accordance with the PSVP for the Site, a discussion on the effect of the PGCS and BWES on the water table near the Site is presented in each quarterly monitoring report. This section summarizes the groundwater elevations at the site during July, August, and September 2004. Groundwater elevation measurements were collected throughout the Site on September 20, 2004 as part of the groundwater monitoring program. The groundwater elevations and resulting contours outside the barrier wall are listed in Table 6.1 and shown on Figure 6.1.

The barrier wall was constructed to contain a contaminated zone under the Site, and the BWES was installed to extract groundwater from within the barrier wall and dewater the Site for the ISVE system. Eight pairs of piezometers were installed, with one piezometer of each pair on either side of the barrier wall, spaced along the barrier wall alignment. This allows measurement and tracking of water levels in order to document that the barrier wall is serving its designed function.

Table 6.1, BWES Water Level and Piezometer Pairs, presents the groundwater elevations inside and outside the barrier wall on September 20, 2004. They are illustrated on Figure 6.2. The groundwater elevation measurements were 1.29 to 5.69 feet higher outside the barrier wall. However, at one piezometer pair in the Off-Site Area (P95/P96), the groundwater elevation was 0.1 foot higher inside the barrier wall. Further investigation indicated that the extraction trench located near the piezometer pair (EW-11) was not working at the time when the water levels were collected. MWH plans to repair the inoperable well pump in the first part of the fourth quarter 2004. In general, the data demonstrates that the barrier wall is successfully performing the intended function of isolating and protecting the groundwater outside the barrier wall from the source areas of the Site inside the barrier wall. MWH will continue to collect regular water level measurements across the Site as required in the PSVP.

As part of the optimization of the GWTP and BWES upgrades, MWH began active dewatering of the Off-Site Area through increased groundwater pumping rates on September 25, 2001. Active dewatering of the SBPA began on February 11, 2003 with the addition of the DPE wells. To keep track of the dewatering progress inside the barrier wall, water levels were collected from the various piezometers and air sparge (AS) wells on a regular basis, as shown in Table 6.2. Water levels were regularly measured throughout the quarter at seven piezometers in the On-Site Area (P29, P31, P32, P36, P49, P-106, and

P-108) and at seven piezometers and three air sparge wells in the Off-Site Area (P96, P110, P112, P113, P114, P116, P118, AS-7, AS-8, and AS-9). The water level data from these piezometers and AS wells are depicted graphically on Figures 6.3 and 6.4, which also reference the target water elevations for each area. The water levels in both areas are on average with previous quarters. In the SBPA, the target water level is 629 feet amsl. Piezometer P-36, which is located in the middle of the ISVE area had an average water level during the third quarter of 625.2, which is 3.8 feet below the target level. The water levels measured at the piezometers outside of the ISVE area are within one foot of the target water level. This information indicates that the water levels within the area of the SBPA ISVE system are sufficient for effective ISVE operation.

The water levels in the Off-Site Area vary from 1.2 feet below the target level to 2.6 feet above the target level. The current water level elevations should not significantly affect the vapor extraction capacity of the ISVE system because sufficient screen length in the ISVE wells is still available and can target the VOC mass above the water table. However, if water levels continue to rise, blinded ISVE well screens may become an issue. MWH will continue to monitor the water levels to ensure vapor extraction at the ISVE wells is not inhibited. Repair of the Off-Site Area BWES pumps, anticipated to occur in the 4th Quarter, should improve pumping rates and decrease the water levels.

## 7.0 SYSTEM OPERATION

The GWTP operated as designed for approximately 90 percent of the third quarter of 2004 (based on days of operation). The system drew influent from the On-Site Area BWES, the Off-Site Area BWES, the PGCS, MW-10C, and 56. The system was shutdown July 3rd due to severe weather, which damaged some control components of the GWTP. On July 6th, the input cards for the GWTP were reset and the system was restarted. The GWTP was also shutdown on July 21st, September 1st, and September 15th due to weather related issues and on September 23rd for routine maintenance. The GWTP was shut down September 27th while the GAC was exchanged. The system was then operated in recirculation mode until September 28th to remove fines from the new GAC. The system was brought back online and began discharging on September 29th.

The Off-Site Area ISVE system continued to operate as designed for approximately 70 percent of the third quarter of 2004 (based on days of operation). The system was shutdown periodically during the installation of the new Off-Site blower shed and other ISVE components. The system was also shutdown several times during the quarter for maintenance and due to heavy storms. During the month of July 2004 eleven ISVE wells were operating; SVE-04, SVE-05, SVE-13, SVE-20, SVE-23, SVE-25, SVE-26, SVE-29, SVE-38, SVE-39, and SVE-41. The same well configuration was used during August 2004. In September 2004 three additional wells were brought online; SVE-03, SVE-11, and SVE-16 for a total of fourteen operating ISVE wells.

The SBPA ISVE system continued to operate as designed for approximately 80 percent of the third quarter of 2004 (based on days of operation). The system was shut down on August 19th and 20th during the removal and replacement of one ISVE well and one air sparge point in the SBPA. The system was also temporarily down at various times throughout the month of September while grading and paving for the final On-Site cover took place. During the month of July 2004 nine ISVE wells were operating: SVE-44, SVE-46, SVE-49, SVE-51, SVE-64, SVE-66, SVE-80, SVE-82, and SVE-83. The same well configuration was used during August 2004. In September 2004 fourteen ISVE wells were operating; SVE-45, SVE-47, SVE-48, SVE-55, SVE-56, SVE-59, SVE-64, SVE-69, SVE-70, SVE-74, SVE-75, SVE-76, SVE-83, and SVE-87. Therm Ox 2 operated for approximately 80 percent of the third quarter of 2004 (based on days of operation).

## 8.0 REFERENCE


1. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, July 1997.

2. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, June 1999.

3. *Phase I Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, July 1996.

4. *Phase II Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, February 1997.

5. *Quality Assurance Project Plan, ACS NPL Site*, Montgomery Watson Harza, March 2001.

6. *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers*, United States Environmental Protection Agency, 1992.

7. *Technical Memorandum SBPA ISVE System Evaluation, ACS NPL Site*, Montgomery Watson Harza, September 2004.


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# Tables

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# TABLES

## Table 2.1
## Groundwater Treatment System Effluent Discharge Limits
## American Chemical Service NPL Site
## Griffith, Indiana

| Groundwater Quality Parameter | Effluent Standard (Limit) |
|---|---|
| ***General Water Quality Parameters*** | |
| PH | 6 - 9 S.U. |
| BOD-5 | 30 mg/L |
| TSS | 30 mg/L |
| ***Inorganics*** | |
| Arsenic | 50 µg/L |
| Beryllium | NE |
| Cadmium | 4.1 µg/L |
| Manganese | NE |
| Mercury | 0.02 µg/L (w/DL = 0.64) |
| Selenium | 8.2 µg/L |
| Thallium | NE |
| Zinc | 411 µg/L |
| ***Volatile Organics*** | |
| Acetone | 6,800 µg/L |
| Benzene | 5 µg/L |
| 2-Butanone | 210 µg/L |
| Chloromethane | NE |
| 1,4 – Dichlorobenzene | NE |
| 1,1 – Dichloroethane | NE |
| 1,2 – Dichloroethene – cis | 70 µg/L |
| Ethylbenzene | 34 µg/L |
| Methylene chloride | 5 µg/L |
| Tetrachloroethene | 5 µg/L |
| Trichloroethene | 5 µg/L |
| Vinyl chloride | 2 µg/L |
| 4 – Methyl - 2 – pentanone | 15 µg/L |
| ***Semi-Volatile Organics*** | |
| bis(2 – Chloroethyl) ether | 9.6 µg/L |
| bis(2 – Ethylhexyl) phthalate | 6 µg/L |
| Isophorone | 50 µg/L |
| 4 – Methylphenol | 34 µg/L |
| Pentachlorophenol | 1 µg/L |
| ***PCBs*** | |
| PCBs | 0.00056 µg/L (w/DL = 0.1 to 0.9) |

**Note: Notes:**

NE = No effluent limit established.
DL = Detection limit
S.U. = Standard pH units
µg/L = micrograms per Liter

**Table 2.2**
**Summary of Effluent Analytical Results - Third Quarter 2004**
**Groundwater Treatment System**
**American Chemical Service NPL Site**
**Griffith, Indiana**

| Event / Date | Month 86 7/8/2004 | Month 87 8/12/2004 | Month 88 9/7/2004 | Effluent Limits | Lab Reporting Limits |
|---|---|---|---|---|---|
| pH | 7.11 /J | 7.62 /J | 7.72 | 6-9 | none |
| TSS | 3.2 /B | NS | NS | 30 | 10 |
| BOD | 2.1 | NS | NS | 30 | 2 |
| Arsenic | 3.2 B | NS | NS | 50 | 3.4 |
| Beryllium | ND | NS | NS | NE | 0.2 |
| Cadmium | 0.26 B/UB | NS | NS | 4.1 | 0.3 |
| Manganese | 7.9 B/UB | NS | NS | NE | 10 |
| Mercury | ND /UJ | NS | NS | 0.02 (w/DL = 0.64) | 0.64 |
| Selenium | ND | NS | NS | 8.2 | 4.3 |
| Thallium | ND | NS | NS | NE | 5.7 |
| Zinc | 7.6 B | NS | NS | 411 | 1.2 |
| Benzene | ND | ND | ND | 5 | 0.5 |
| Acetone | 2.6 /J | 1.3 JB/UBJ | 2.5 | 6,800 | 3 |
| 2-Butanone | ND /UJ | ND | ND | 210 | 3 |
| Chloromethane | ND /UJ | 0.13 JB/ 0.5 UBJ | ND | NE | 0.5 |
| 1,4-Dichlorobenzene | ND /UJ | ND | ND | NE | 0.5 |
| 1,1-Dichloroethane | ND /UJ | ND | ND | NE | 0.5 |
| cis-1,2-Dichloroethene | 0.27 J/J | ND | ND | 70 | 0.5 |
| Ethylbenzene | ND /UJ | 1.7 /J | ND | 34 | 0.5 |
| Methylene chloride | 0.69 /J | ND | 3.3 | 5 | 0.6 |
| Tetrachloroethene | ND /UJ | ND | ND | 5 | 0.5 |
| Trichloroethene | 0.14 JB/ 0.5 UBJ | ND | ND | 5 | 0.5 |
| Vinyl chloride | ND /UJ | ND | ND | 2 | 0.5 |
| 4-Methyl-2-pentanone | ND /UJ | ND | ND | 15 | 3 |
| bis (2-Chloroethyl) ether | ND | NS | NS | 9.6 | 9.6 |
| bis(2-Ethylhexyl) - phthalate | ND | NS | NS | 6 | 6 |
| 4 - Methylphenol | ND | NS | NS | 34 | 10 |
| Isophorone | ND | NS | NS | 50 | 10 |
| Pentachlorophenol | ND | NS | NS | 1 | 1 |
| PCB/Aroclor-1016 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1221 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.92* |
| PCB/Aroclor-1232 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1242 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1248 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1254 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1260 | ND | NS | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |

**Notes:**
Bolded result indicates a exceedence of the discharge limit
pH data is expressed in Standard Units
Metals, VOC, SVOC and PCB data is expressed in ug/L
ND = Not detected
NS = This analyte was not sampled or analyzed
NE = No effluent limit established.
* = Approved SW-846 method is incapable of achieving effluent limit.
The holding time for pH is 48 hours. pH results are estimated if the reading is taken more than 48 hours after collection.

**Suffix Definitions:**
_/ = Data qualifier added by laboratory
/_ = Data qualifier added by data validator
B = Compound is also detected in the blank
E = compound exceeds the upper level of calibration range of instrument
J = Result is detected below the reporting limit and is an estimated concentration and the compound is also detected in the method blank resulting in a potential high bias.
JB = Analyte is detected in the sample below the reporting limit and is an estimated concentration. The compound is also detected in the method blank resulting in a potential high bias.
U = Analyte is not detected at or above the indicated concentration
UB = Analyte is not detected at or above the indicated concentration due to blank contamination
UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
UBJ = Analyte is not detected at or above the indicated concentration due to blank contamination, however the calibration was out of range. Therefore, the concentration is estimated.

# Table 2.3
## Summary of Sediment Analytical Results
## Groundwater Treatment System
## American Chemical Service NPL Site
## Griffith, Indiana

| PCB Compound | Results (ug/kg) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12/4/1998 | 2/3/2000 | 2/3/00 DUP | 8/21/2001 | 8/21/01 DUP | 6/5/2002 | 6/5/02 DUP | 1/13/04 | 1/13/04 DUP | 9/27/04 | 9/27/04 DUP |
| Aroclor-1016 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) | ND (52) /UJ | ND (49) | ND (67) | ND (76) | ND (62) | ND (78) |
| Aroclor-1221 | ND (33) | ND (77) | ND (100) | ND (82) /UJ | ND (92) | ND (67) /UJ | ND (64) | ND (84) | ND (95) | ND (84) | ND (110) |
| Aroclor-1232 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) | ND (52) /UJ | ND (49) | ND (67) | ND (76) | ND (62) | ND (78) |
| Aroclor-1242 | ND (33) | ND (41) | ND (55) | ND (43) /UJ | ND (49) /UJ | ND (36) /UJ | ND (34) | ND (42) | ND (48) | ND (42) | ND (53) |
| Aroclor-1248 | ND (33) | ND (41) | ND (55) | ND (43) /UJ | ND (49) /UJ | ND (36) /UJ | ND (34) | ND (42) | ND (48) | ND (42) | ND (53) |
| Aroclor-1254 | ND (33) | 22 J/ | 15 J/ | 73 P/J | 39 JP/J | ND (36) /UJ | ND (34) | ND (42) | ND (48) | ND (42) | ND (53) |
| Aroclor-1260 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) /UJ | 41 J/J | ND (49) | 35 J | ND (76) | ND (62) | ND (78) |
| ***Total PCBs*** [4] | ***ND*** | ***22*** | ***15*** | ***73*** | ***39*** | ***41*** | ***ND*** | ***35*** | ***ND*** | ***ND*** | ***ND*** |

**Notes:**

1 ND (_) = Compound was not detected. The detection limit is included in parentheses

2 December 4, 1998 sample was analyzed by Quanterra. All other samples were analyzed by Compuchem.

3 DUP = Duplicate sample

4 The total PCB value presented here are estimated totals based on estimated concentrations of individual Aroclors

**Suffix Definitions:**

_/ = Data qualifier added by laboratory

/_ = Data qualifier added by data validator

J = Result is detected below the reporting limit and is an estimated concentration

P = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported.

JP = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported. The concentration is also estimated.

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

# Table 2.4
## Summary of Catalytic Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - September 2004
## American Chemical Service NPL Site
## Griffith, Indiana

| Compounds | Units | Sampled 9/16/2004 Catalytic Oxidizer Effluent EF1 | |
|---|---|---|---|
| 1,1,1-Trichloroethane | ppbv | 95. | |
| 1,1,2,2-Tetrachloroethane | ppbv | 4.9 | J/J |
| 1,1,2-Trichloroethane | ppbv | ND | U |
| 1,1-Dichloroethane | ppbv | 110 | |
| 1,1-Dichloroethene | ppbv | 260 | |
| 1,2-Dichloroethane | ppbv | 36 | |
| 1,2-Dichloropropane | ppbv | ND | U |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 120 | |
| 2-Hexanone | ppbv | ND | U |
| 4-Methyl-2-pentanone | ppbv | 95 | J/J |
| Acetone | ppbv | 260 | |
| Benzene | ppbv | 1,400 | |
| Bromodichloromethane | ppbv | ND | U |
| Bromoform | ppbv | ND | U |
| Bromomethane | ppbv | ND | U |
| Carbon Disulfide | ppbv | ND | U |
| Carbon Tetrachloride | ppbv | ND | U |
| Chlorobenzene | ppbv | 150 | |
| Chloroethane | ppbv | 150 | |
| Chloroform | ppbv | 30 | |
| Chloromethane | ppbv | 200 | |
| cis-1,2-Dichloroethene | ppbv | 3,200 | |
| cis-1,3-Dichloropropene | ppbv | ND | U |
| Dibromochloromethane | ppbv | ND | U |
| Ethyl Benzene | ppbv | 110 | |
| m,p-Xylene | ppbv | 440 | |
| Methylene Chloride | ppbv | 210 | /J |
| o-Xylene | ppbv | 180 | |
| Styrene | ppbv | 44 | |
| Tetrachloroethene | ppbv | 5,200 | |
| Toluene | ppbv | 1,000 | |
| trans-1,2-Dichloroethene | ppbv | 570 | |
| trans-1,3-Dichloropropene | ppbv | ND | U |
| Trichloroethene | ppbv | 1,000 | |
| Vinyl Chloride | ppbv | 260 | |
| **Total** | **ppbv** | **15,125** | |
| **Total** | **lb/hr** | **0.11** | |

**Notes:**

_/ = Laboratory data qualifier

/_ = Data validation qualifier

ppbv = parts per billion volume

lb/hr = pounds per hour

9/16/04 VOCs in lb/hr calculated based on T-102: 400 scfm and 70 degrees Fahrenheit

ND = Not detected

**Qualifiers:**

J = Result is estimated

U = Below reported quantitation limit

# Table 2.5
## Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - September 2004
## American Chemical Service NPL Site
## Griffith, Indiana

| | | Sampled 9/16/2004 | |
|---|---|---|---|
| | | Therm-Ox 1 | |
| Compounds | Units | Effluent EF1 | |
| 1,2,4-Trichlorobenzene | µg | ND | U |
| 1,2-Dichlorobenzene | µg | 2.6 | |
| 1,3-Dichlorobenzene | µg | 0.78 | J/J |
| 1,4-Dichlorobenzene | µg | 0.65 | J/J |
| 2,4,5-Trichlorophenol | µg | ND | U |
| 2,4,6-Trichlorophenol | µg | ND | U |
| 2,4-Dichlorophenol | µg | ND | U |
| 2,4-Dimethylphenol | µg | ND | U |
| 2,4-Dinitrophenol | µg | ND | U |
| 2,4-Dinitrotoluene | µg | ND | U |
| 2,6-Dinitrotoluene | µg | ND | U |
| 2-Chloronaphthalene | µg | ND | U |
| 2-Chlorophenol | µg | ND | U |
| 2-Methylnaphthalene | µg | 0.3 | J/J |
| 2-Methylphenol (o-Cresol) | µg | ND | U |
| 2-Nitroaniline | µg | ND | U |
| 2-Nitrophenol | µg | ND | U |
| 3,3'-Dichlorobenzidine | µg | ND | U |
| 3-Nitroaniline | µg | ND | U |
| 4,6-Dinitro-2-methylphenol | µg | ND | U |
| 4-Bromophenyl-phenyl Ether | µg | ND | U |
| 4-Chloro-3-methylphenol | µg | ND | U |
| 4-Chloroaniline | µg | ND | U |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U |
| 4-Methylphenol | µg | ND | U |
| 4-Nitroaniline | µg | ND | U |
| 4-Nitrophenol | µg | ND | U |
| Acenaphthene | µg | ND | U |
| Acenaphthylene | µg | ND | U |
| Anthracene | µg | ND | U |
| Benzo(a)anthracene | µg | ND | U |
| Benzo(a)pyrene | µg | ND | U |
| Benzo(b)fluoranthene | µg | ND | U |
| Benzo(g,h,i)perylene | µg | ND | U |
| Benzo(k)fluoranthene | µg | ND | U |
| bis(2-Chloroethoxy) Methane | µg | ND | U |
| bis(2-Chloroethyl) Ether | µg | ND | U |
| bis(2-Ethylhexyl)phthalate | µg | 2.3 | J/J |
| Butylbenzylphthalate | µg | ND | U |
| Chrysene | µg | ND | U |
| Dibenz(a,h)anthracene | µg | ND | U |
| Dibenzofuran | µg | ND | U |
| Diethylphthalate | µg | ND | U |
| Dimethylphthalate | µg | ND | U |
| di-n-Butylphthalate | µg | ND | U |
| Di-n-Octylphthalate | µg | ND | U |
| Fluoranthene | µg | ND | U |
| Fluorene | µg | ND | U |

# Table 2.5
## Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - September 2004
## American Chemical Service NPL Site
## Griffith, Indiana

| | | Sampled 9/16/2004 | |
|---|---|---|---|
| | | Therm-Ox 1 | |
| **Compounds** | **Units** | **Effluent EF1** | |
| Hexachlorobenzene | µg | ND | U |
| Hexachlorobutadiene | µg | ND | U |
| Hexachlorocyclopentadiene | µg | ND | U |
| Hexachloroethane | µg | ND | U |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U |
| Isophorone | µg | ND | U |
| Naphthalene | µg | 1.1 | |
| Nitrobenzene | µg | ND | U |
| N-Nitroso-di-n-propylamine | µg | ND | U |
| N-Nitrosodiphenylamine | µg | ND | U |
| Pentachlorophenol | µg | ND | U |
| Phenanthrene | µg | ND | U |
| Phenol | µg | ND | U |
| Pyrene | µg | ND | U |
| **Total** | µg | **7.73** | |

**Notes:**
_/ = Laboratory data qualifier
/_ = Data validation qualifier
ND = Non-detect
µg = micrograms

**Qu: Qualifiers:**
J = Result is estimated
U = Below reported quantitation limit

**Table 3.1**
**Summary of Thermal Oxidizer Off-Gas Analytical Results**
**for VOCs (Method TO-14) - Third Quarter 2004**
**American Chemical Service NPL Site**
**Griffith, Indiana**

| | | Sampled 7/23/04 | | | | | | Sampled 8/12/2004 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | Destruction Efficiency | | | Therm-Ox 2 | | | Destruction Efficiency | | |
| **Compounds** | **Units** | **Influent IN1** | **Influent IN2** | **Effluent EF1** | **Low** | **High** | **Average** | **Influent IN1** | **Influent IN2** | **Effluent EF1** | **Low** | **High** | **Average** |
| 1,1,1-Trichloroethane | ppbv | 70,000 | 72,000 | 1,100 | 98.43% | 98.47% | 98.45% | 92,000 | 100,000 | 1,300 | 98.59% | 98.70% | 98.64% |
| 1,1,2,2-Tetrachloroethane | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| 1,1,2-Trichloroethane | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| 1,1-Dichloroethane | ppbv | 7,400 | 7,400 | 140 | 98.11% | 98.11% | 98.11% | 12,000 | 13,000 | 200 | 98.33% | 98.46% | 98.40% |
| 1,1-Dichloroethene | ppbv | ND U | ND U | 470 | NC | NC | NC | 2,000 J/J | 2,000 J/J | 560 | NC | NC | NC |
| 1,2-Dichloroethane | ppbv | ND U | ND U | ND U | NC | NC | NC | 1,900 J/J | 2,100 J/J | 44 | NC | NC | NC |
| 1,2-Dichloropropane | ppbv | 1,400 J/J | 1,300 J/J | 21 J/J | NC | NC | NC | 1,500 J/J | 1,600 J/J | 22 J/J | NC | NC | NC |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 13,000 | 13,000 | 290 | 97.77% | 97.77% | 97.77% | 14,000 | 16,000 | 360 | 97.43% | 97.75% | 97.59% |
| 2-Hexanone | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | 12 J/J | NC | NC | NC |
| 4-Methyl-2-pentanone | ppbv | 6,600 J/J | 7,200 J/J | 120 J/J | NC | NC | NC | 7,500 J/J | 9,200 J/J | 140 | NC | NC | NC |
| Acetone | ppbv | 24,000 | 21,000 | 480 | 97.71% | 98.00% | 97.86% | 26,000 | 29,000 | 610 | 97.65% | 97.90% | 97.78% |
| Benzene | ppbv | 42,000 | 46,000 | 1,300 | 96.90% | 97.17% | 97.04% | 48,000 | 51,000 | 1,400 | 97.08% | 97.25% | 97.17% |
| Bromodichloromethane | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | 13 J/J | NC | NC | NC |
| Bromoform | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Bromomethane | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Carbon Disulfide | ppbv | 4,100 J/J | 2,000 J/J | 12 J/J | NC | NC | NC | 2,200 J/J | 2,500 J/J | ND U | NC | NC | NC |
| Carbon Tetrachloride | ppbv | ND U | ND U | 14 J/J | NC | NC | NC | ND U | ND U | 18 J/J | NC | NC | NC |
| Chlorobenzene | ppbv | ND U | ND U | 28 J/J | NC | NC | NC | ND U | ND U | 21 J/J | NC | NC | NC |
| Chloroethane | ppbv | 1,700 J/J | ND U | 30 J/J | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Chloroform | ppbv | 3,700 | 3,800 | 120 | 96.76% | 96.84% | 96.80% | 5,400 | 5,500 | 150 | 97.22% | 97.27% | 97.25% |
| Chloromethane | ppbv | ND U | ND U | 140 | NC | NC | NC | ND U | ND U | 160 | NC | NC | NC |
| cis-1,2-Dichloroethene | ppbv | 43,000 | 44,000 | 960 | 97.77% | 97.82% | 97.79% | 53,000 | 58,000 | 910 | 98.28% | 98.43% | 98.36% |
| cis-1,3-Dichloropropene | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Dibromochloromethane | ppbv | ND U | ND U | 6 J/J | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Ethyl Benzene | ppbv | 51,000 | 58,000 | 1,200 | 97.65% | 97.93% | 97.79% | 66,000 | 70,000 | 1,100 | 98.33% | 98.43% | 98.38% |
| m,p-Xylene | ppbv | 200,000 | 230,000 | 4,900 | 97.55% | 97.87% | 97.71% | 290,000 | 320,000 | 4,600 | 98.41% | 98.56% | 98.49% |
| Methylene Chloride | ppbv | 30,000 | 31,000 | 650 | 97.83% | 97.90% | 97.87% | 64,000 | 68,000 | 1,200 | 98.13% | 98.24% | 98.18% |
| o-Xylene | ppbv | 72,000 | 84,000 | 1,800 | 97.50% | 97.86% | 97.68% | 95,000 | 110,000 | 1,600 | 98.32% | 98.55% | 98.43% |
| Styrene | ppbv | ND U | ND U | 360 | NC | NC | NC | ND U | ND U | 270 | NC | NC | NC |
| Tetrachloroethene | ppbv | 100,000 | 120,000 | 3,100 | 96.90% | 97.42% | 97.16% | 140,000 | 140,000 | 2,900 | 97.93% | 97.93% | 97.93% |
| Toluene | ppbv | 410,000 | 450,000 | 9,200 | 97.76% | 97.96% | 97.86% | 490,000 | 520,000 | 8,200 | 98.33% | 98.42% | 98.37% |
| trans-1,2-Dichloroethene | ppbv | ND U | ND U | 94 J/J | NC | NC | NC | ND U | ND U | 96 J/J | NC | NC | NC |
| trans-1,3-Dichloropropene | ppbv | ND U | ND U | ND U | NC | NC | NC | ND U | ND U | ND U | NC | NC | NC |
| Trichloroethene | ppbv | 59,000 | 60,000 | 1,400 | 97.63% | 97.67% | 97.65% | 65,000 | 73,000 | 1,400 | 97.85% | 98.08% | 97.96% |
| Vinyl Chloride | ppbv | 1,600 J/J | 1,700 J/J | 98 | NC | NC | NC | 3,800 | 3,600 | 160 | 95.56% | 95.79% | 95.67% |
| **Total** | **ppbv** | **1,140,500** | **1,252,400** | **28,033** | **97.54%** | **97.76%** | **97.65%** | **1,479,300** | **1,594,500** | **27,446** | **98.14%** | **98.28%** | **98.21%** |
| **Total** | **lb/hr** | **32.73** | **36.18** | **0.811** | **97.52%** | **97.76%** | **97.64%** | **42.73** | **45.93** | **0.789** | **98.15%** | **98.28%** | **98.22%** |

# Table 3.1
## Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - Third Quarter 2004
## American Chemical Service NPL Site
## Griffith, Indiana

| | | Sampled 9/27/2004 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | | | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average |
| 1,1,1-Trichloroethane | ppbv | 58,000 | | 63,000 | | 110 | | 99.81% | 99.83% | 99.82% |
| 1,1,2,2-Tetrachloroethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| 1,1,2-Trichloroethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| 1,1-Dichloroethane | ppbv | 6,200 | | 6,500 | | 13 | | 99.79% | 99.80% | 99.80% |
| 1,1-Dichloroethene | ppbv | 1,100 | J/J | 1,200 | J/J | 4 | | NC | NC | NC |
| 1,2-Dichloroethane | ppbv | 1,400 | | 1,600 | | 3 | J/J | NC | NC | NC |
| 1,2-Dichloropropane | ppbv | 1,100 | J/J | ND | U | 2.2 | J/J | NC | NC | NC |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 10,000 | | 10,000 | | 52 | | 99.48% | 99.48% | 99.48% |
| 2-Hexanone | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Methyl-2-pentanone | ppbv | 7,500 | | 8,500 | | 20 | | NC | NC | NC |
| Acetone | ppbv | 17,000 | | 18,000 | | 190 | | 98.88% | 98.94% | 98.91% |
| Benzene | ppbv | 34,000 | | 38,000 | | 92 | | 99.73% | 99.76% | 99.74% |
| Bromodichloromethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Bromoform | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Bromomethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Carbon Disulfide | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Carbon Tetrachloride | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Chlorobenzene | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Chloroethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Chloroform | ppbv | 3,700 | | 3,800 | | 7.2 | | 99.81% | 99.81% | 99.81% |
| Chloromethane | ppbv | ND | U | ND | U | 3.4 | J/J | NC | NC | NC |
| cis-1,2-Dichloroethene | ppbv | 35,000 | | 37,000 | | 80 | | 99.77% | 99.78% | 99.78% |
| cis-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Dibromochloromethane | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Ethyl Benzene | ppbv | 82,000 | | 93,000 | | 200 | | 99.76% | 99.78% | 99.77% |
| m,p-Xylene | ppbv | 390,000 | | 440,000 | | 1,000 | | 99.74% | 99.77% | 99.76% |
| Methylene Chloride | ppbv | 38,000 | | 40,000 | | 70 | | 99.82% | 99.83% | 99.82% |
| o-Xylene | ppbv | 150,000 | | 170,000 | | 420 | | 99.72% | 99.75% | 99.74% |
| Styrene | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Tetrachloroethene | ppbv | 140,000 | | 160,000 | | 320 | | 99.77% | 99.80% | 99.79% |
| Toluene | ppbv | 500,000 | | 550,000 | | 1,000 | | 99.80% | 99.82% | 99.81% |
| trans-1,2-Dichloroethene | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| trans-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND | U | NC | NC | NC |
| Trichloroethene | ppbv | 50,000 | | 56,000 | | 100 | | 99.80% | 99.82% | 99.81% |
| Vinyl Chloride | ppbv | 1,200 | J/J | 1,400 | U | 8.7 | | NC | NC | NC |
| **Total** | **ppbv** | **1,526,200** | | **1,698,000** | | **3,696** | | **99.76%** | **99.78%** | **99.77%** |
| **Total** | **lb/hr** | **55.61** | | **62.02** | | **0.13** | | **99.76%** | **99.79%** | **99.78%** |

**Notes:**

_/ = Laboratory data qualifier
/_ = Data validation qualifier
ND = Non-detect
NC = Not calculated
ppbv = parts per billion volume
lb/hr = pounds per hour
Destruction efficiencies were not calculated if the either influent samples or the effluent sample was estimated.
The total concentration and mass loading were calculated using all detected concentrations concentrations including estimated detections (denoted with J or UJ qualifiers).
7/23/04 VOCs in lb/hr calculated based on Offsite: 958 scfm, 74 degrees Fahrenheit and Onsite: 791 scfm, 70 degrees Fahrenheit (8/6/04)
8/12/04 VOCs in lb/hr calcuated based on Offsite: 958 scfm, 74 degrees Fahrenheit and Onsite: 791 scfm, 70 degrees Fahrenheit (8/6/04).
9/27/04 VOCs in lb/hr calculated based on Offsite: 992 scfm, 75 degrees Fahrenheit and Onsite: 1208 scfm, 75 degrees Fahrenheit (9/30/04).
Therm-Ox VOC lb/hr based on assumption of 70 degrees Fahrenheit

**Qualifiers:**

J = Result is estimated
U = Below reported quantitation limit

ALC/JDP/raa/jmf
J:\209\0603\0301 GWTP\6030301a129.xls\TO-14 TO

# Table 3.2
## Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - Third Quarter 2004
## American Chemical Service NPL Site, Griffith, Indiana

| | | Sampled 7/23/2004 | | | | | | | | | Sampled 8/12/2004 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | | | | Destruction Efficiency | | | Therm-Ox 2 | | | | | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average |
| 1,2,4-Trichlorobenzene | µg | 1.3 | | 1.6 | | ND | U | 100.00% | 100.00% | 100.00% | 2.1 | | 2.0 | | ND | U | 100.00% | 100.00% | 100.00% |
| 1,2-Dichlorobenzene | µg | 98 | | 110 | | 1.3 | | 98.67% | 98.82% | 98.75% | 120 | | 110 | | 0.86 | J/J | NC | NC | NC |
| 1,3-Dichlorobenzene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 1,4-Dichlorobenzene | µg | 15 | | 17 | | ND | U | 100.00% | 100.00% | 100.00% | 20 | | 18 | | ND | U | 100.00% | 100.00% | 100.00% |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dimethylphenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dinitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,6-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Chloronaphthalene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Chlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Methylnaphthalene | µg | 16 | | 22 | | ND | U | 100.00% | 100.00% | 100.00% | 24 | | 25 | | ND | U | 100.00% | 100.00% | 100.00% |
| 2-Methylphenol (o-Cresol) | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 3-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chloroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Methylphenol | µg | ND | U | 4.2 | J/J | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Acenaphthene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Acenaphthylene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Anthracene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(a)anthracene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(a)pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(b)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(g,h,i)perylene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(k)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |

## Table 3.2
## Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - Third Quarter 2004
## American Chemical Service NPL Site, Griffith, Indiana

| | | Sampled 7/23/2004 | | | | | | | | | Sampled 8/12/2004 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | | | | Destruction Efficiency | | | Therm-Ox 2 | | | | | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| bis(2-Ethylhexyl)phthalate | µg | 5.8 | | 0.64 | J/J | 1.6 | J/J | NC | NC | NC | 0.67 | J/J | 3.8 | J/J | ND | U | NC | NC | NC |
| Butylbenzylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Chrysene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Dibenz(a,h)anthracene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Dibenzofuran | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Diethylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Dimethylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| di-n-Butylphthalate | µg | 0.43 | J/J | 0.78 | J/J | 0.58 | J/J | NC | NC | NC | 0.43 | J/J | 0.31 | J/J | ND | U | NC | NC | NC |
| Di-n-Octylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Fluorene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachlorobenzene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachlorobutadiene | µg | 4.1 | | 4.3 | | ND | U | 100.00% | 100.00% | 100.00% | 6.0 | | 5.4 | | ND | U | 100.00% | 100.00% | 100.00% |
| Hexachlorocyclopentadiene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachloroethane | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Isophorone | µg | 18 | | 19 | | ND | U | 100.00% | 100.00% | 100.00% | 16 | | 15 | | ND | U | 100.00% | 100.00% | 100.00% |
| Naphthalene | µg | 79 | B | 95 | B | 0.94 | JB/B | NC | NC | NC | 100 | | 100 | | 0.44 | J/J | NC | NC | NC |
| Nitrobenzene | µg | ND | U | 8 | | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| N-Nitrosodiphenylamine | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Pentachlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Phenanthrene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Phenol | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC | ND | U | ND | U | ND | U | NC | NC | NC |
| Total | µg | 237.63 | | 282.52 | | 4.42 | | 98.14% | 98.44% | 98.29% | 289.20 | | 279.51 | | 1.30 | | 99.53% | 99.55% | 99.54% |

**Table 3.2**
**Summary of Thermal Oxidizer Off-Gas Analytical Results**
**for SVOCs (Method TO-13) - Third Quarter 2004**
**American Chemical Service NPL Site,**
**Griffith, Indiana**

| | | Sampled 9/27/2004 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | | | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average |
| 1,2,4-Trichlorobenzene | µg | 2.6 | | 3 | | ND | U | 100.00% | 100.00% | 100.00% |
| 1,2-Dichlorobenzene | µg | 150 | | 160 | | ND | U | 100.00% | 100.00% | 100.00% |
| 1,3-Dichlorobenzene | µg | 8.6 | | 9.3 | | ND | U | 100.00% | 100.00% | 100.00% |
| 1,4-Dichlorobenzene | µg | 23 | | 23 | | ND | U | 100.00% | 100.00% | 100.00% |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dimethylphenol | µg | 5.1 | | 5 | J/J | ND | U | NC | NC | NC |
| 2,4-Dinitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,4-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2,6-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Chloronaphthalene | µg | 0.2 | J/J | ND | U | ND | U | NC | NC | NC |
| 2-Chlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Methylnaphthalene | µg | 43 | | 47 | | ND | U | 100.00% | 100.00% | 100.00% |
| 2-Methylphenol (o-Cresol) | µg | 3.4 | J/J | 3.4 | J/J | ND | U | NC | NC | NC |
| 2-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 2-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 3-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chloroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Methylphenol | µg | 6.6 | | 7.4 | | ND | U | 100.00% | 100.00% | 100.00% |
| 4-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| 4-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Acenaphthene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Acenaphthylene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Anthracene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(a)anthracene | µg | ND | U | ND | U | 0.16 | J/J | NC | NC | NC |
| Benzo(a)pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(b)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(g,h,i)perylene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Benzo(k)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC |

## Table 3.2
## Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - Third Quarter 2004
## American Chemical Service NPL Site, Griffith, Indiana

| | | Sampled 9/27/2004 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Therm-Ox 2 | | | | | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | | Influent IN2 | | Effluent EF1 | | Low | High | Average |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| bis(2-Ethylhexyl)phthalate | µg | 2.8 | J/J | 3.2 | J/J | 0.76 | J/J | NC | NC | NC |
| Butylbenzylphthalate | µg | 0.72 | J/J | ND | U | ND | U | NC | NC | NC |
| Chrysene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Dibenz(a,h)anthracene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Dibenzofuran | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Diethylphthalate | µg | 0.32 | J/J | ND | U | 0.23 | J/J | NC | NC | NC |
| Dimethylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| di-n-Butylphthalate | µg | 0.79 | J/J | 0.59 | J/J | 0.43 | J/J | NC | NC | NC |
| Di-n-Octylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Fluorene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachlorobenzene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachlorobutadiene | µg | 9.1 | | 9.6 | | ND | U | 100.00% | 100.00% | 100.00% |
| Hexachlorocyclopentadiene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Hexachloroethane | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Isophorone | µg | 25 | | 28 | | ND | U | 100.00% | 100.00% | 100.00% |
| Naphthalene | µg | 150 | | 170 | | ND | U | 100.00% | 100.00% | 100.00% |
| Nitrobenzene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| N-Nitrosodiphenylamine | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Pentachlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Phenanthrene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Phenol | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| Pyrene | µg | ND | U | ND | U | ND | U | NC | NC | NC |
| **Total** | µg | **431.23** | | **469.49** | | **1.58** | | **99.63%** | **99.66%** | **99.65%** |

**Notes:**

_/ = Laboratory data qualifier
/_ = Data validation qualifier
ND = Non-detect
NC = Not calculated
µg = micrograms
The total concentration was calculated using all detected concentrations including estimated detections (denoted with J or UJ qualifiers).
Destruction efficiencies were not calculated if the either influent samples or the effluent sample was estimated.
Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

**Qualifiers:**

J = Result is estimated
U = Below reported quantitation limit
B = The compound was detected in an associated blank
R = Quality control indicates the data is not usable
JB = Analyte is detected in the compliance sample below the reporting limit and is an estimated concentration and the compound is also detectec in the method blank resulting in a potential high bias.

**Table 3.3**
**Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data**
**for VOCs (Method TO-14) – Third Quarter 2004**
**American Chemical Services NPL Site**
**Griffith, Indiana**

| | | Sampled 7/23/04 | | | | Sampled 8/12/2004 | | | | 9/27/2004 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | |
| **Compounds** | **Units** | **Influent IN1** | | **Influent IN1** | | **Influent IN1** | | **Influent IN1** | | **Influent IN1** | | **Influent IN1** | |
| 1,1,1-Trichloroethane | ppbv | 88,000 | | 94,000 | | 160,000 | | 100,000 | | 74,000 | | 58,000 | |
| 1,1,2,2-Tetrachloroethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 1,1,2-Trichloroethane | ppbv | ND | U | ND | U | 900 | J/J | ND | U | 540 | J/J | ND | U |
| 1,1-Dichloroethane | ppbv | 11,000 | | 7,100 | | 23,000 | | 8,500 | | 10,000 | | 4,300 | |
| 1,1-Dichloroethene | ppbv | ND | U | ND | U | 2,100 | | 2,200 | J/J | 2,200 | | 1,200 | J/J |
| 1,2-Dichloroethane | ppbv | 2,800 | | ND | U | 4,700 | | ND | U | 2,800 | | 750 | J/J |
| 1,2-Dichloropropane | ppbv | ND | U | ND | U | 1,200 | J/J | 2,300 | J/J | 940 | J/J | ND | U |
| 2-Butanone (Methyl Ethy | ppbv | 37,000 | | ND | U | 51,000 | | 2,500 | J | 26,000 | | 2,200 | J/J |
| 2-Hexanone | ppbv | 780 | J/J | ND | U | 900 | J/J | ND | U | ND | U | ND | U |
| 4-Methyl-2-pentanone | ppbv | 19,000 | | ND | U | 21,000 | | 2,300 | J/J | 14,000 | | 3,700 | J/J |
| Acetone | ppbv | 48,000 | | ND | U | 66,000 | | 8,200 | J/J | 46,000 | | 7,200 | J/J |
| Benzene | ppbv | 54,000 | | 51,000 | | 83,000 | | 48,000 | | 47,000 | | 33,000 | |
| Bromodichloromethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Bromoform | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Bromomethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Carbon Disulfide | ppbv | 1,800 | J/J | 940 | J/J | ND | U | 2,200 | J/J | ND | U | 1,400 | J/J |
| Carbon Tetrachloride | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Chlorobenzene | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Chloroethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Chloroform | ppbv | 5,000 | | 4,600 | | 10,000 | | 5,300 | | 4,400 | | 4,000 | |
| Chloromethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| cis-1,2-Dichloroethene | ppbv | 9,100 | | 80,000 | | 18,000 | | 88,000 | | 7,400 | | 60,000 | |
| cis-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Dibromochloromethane | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Ethyl Benzene | ppbv | 34,000 | | 110,000 | | 59,000 | | 120,000 | | 43,000 | | 120,000 | |
| m,p-Xylene | ppbv | 130,000 | | 450,000 | | 260,000 | | 550,000 | | 180,000 | | 550,000 | |
| Methylene Chloride | ppbv | 68,000 | | 13,000 | | 180,000 | | 20,000 | | 88,000 | | 11,000 | |
| o-Xylene | ppbv | 47,000 | | 170,000 | | 90,000 | | 190,000 | | 66,000 | | 210,000 | |
| Styrene | ppbv | ND | U | ND | U | ND | U | ND | U | 3,300 | | ND | U |
| Tetrachloroethene | ppbv | 61,000 | | 220,000 | | 100,000 | | 250,000 | | 71,000 | | 220,000 | |
| Toluene | ppbv | 340,000 | | 770,000 | | 540,000 | | 800,000 | | 340,000 | | 650,000 | |
| trans-1,2-Dichloroethene | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| trans-1,3-Dichloropropen | ppbv | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Trichloroethene | ppbv | 55,000 | | 94,000 | | 88,000 | | 98,000 | | 49,000 | | 59,000 | |
| Vinyl Chloride | ppbv | 350 | J/J | 1,800 | J/J | 1,400 | U | 3,000 | J/J | ND | U | ND | U |
| **Total** | **ppbv** | **1,011,830** | | **2,066,440** | | **1,760,200** | | **2,300,500** | | **1,075,580** | | **1,995,750** | |
| **Total** | **lb/hr** | **15.23** | | **27.51** | | **26.61** | | **30.67** | | **16.84** | | **40.26** | |

**Notes:**

_/ = Laboratory data qualifier
/_ = Data validation qualifier
ND = Non-detect
ppbv = parts per billion volume

lb/hr = pounds per hour
J = Result is estimated
U = Below reported quantitation limit
deg F = degrees Fahrenheit

7/23/04 and 8/12/04 VOCs in lb/hr calculated based on Offsite: 958 scfm, 74 deg F and Onsite: 791 scfm, 70 deg F (8/6/04)
9/27/04 VOCs in lb/hr calculated based on Offsite: 992 scfm, 75 deg F and Onsite: 1208 scfm, 75 deg F (9/30/04).

ALC/JDP/raa/jmf
J:\209\0603 ACS\0301 GWTP\6030301a129.xls\TO-14 b

**Table 3.4**
**Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data**
**for SVOCs (Method TO-13) – Third Quarter 2004**
**American Chemical Services NPL Site**
**Griffith, Indiana**

| | | 7/23/2004 | | | | Sampled 8/12/2004 | | | | Sampled 9/27/2004 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | |
| Compounds | Units | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | |
| 1,2,4-Trichlorobenzene | µg | 1.6 | J/J | ND | U | 3.1 | | 0.61 | J/J | 2.7 | | 1.5 | |
| 1,2-Dichlorobenzene | µg | 65 | | 120 | | 120 | | 120 | | 92 | | 160 | |
| 1,3-Dichlorobenzene | µg | ND | U | ND | U | ND | U | ND | U | 3.4 | | 12 | |
| 1,4-Dichlorobenzene | µg | 8.1 | | ND | U | 17.0 | | 24 | | 11 | | 26 | |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2,4-Dichlorophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2,4-Dimethylphenol | µg | ND | U | ND | U | ND | U | ND | U | 5.2 | | 3.8 | J |
| 2,4-Dinitrophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2,4-Dinitrotoluene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2,6-Dinitrotoluene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2-Chloronaphthalene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2-Chlorophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2-Methylnaphthalene | µg | 11 | | 32 | | 18 | | 34 | | 16 | | 58 | |
| 2-Methylphenol (o-Cresol) | µg | ND | U | ND | U | ND | U | ND | U | 2.8 | J/J | 1.2 | J/J |
| 2-Nitroaniline | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 2-Nitrophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 3-Nitroaniline | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Chloroaniline | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Methylphenol | µg | 8.3 | J/J | ND | U | ND | U | ND | U | 6.4 | | 3.5 | J/J |
| 4-Nitroaniline | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| 4-Nitrophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Acenaphthene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Acenaphthylene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Anthracene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Benzo(a)anthracene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Benzo(a)pyrene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Benzo(b)fluoranthene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Benzo(g,h,i)perylene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Benzo(k)fluoranthene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| bis(2-Ethylhexyl)phthalate | µg | 33 | | 0.61 | J/J | ND | U | 2.4 | J/J | 2 | J/J | 3 | J/J |
| Butylbenzylphthalate | µg | ND | U | ND | U | ND | U | ND | U | 0.47 | J/J | ND | U |
| Chrysene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |

## Table 3.4
## Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data for SVOCs (Method TO-13) – Third Quarter 2004
## American Chemical Services NPL Site
## Griffith, Indiana

| | | 7/23/2004 | | | | Sampled 8/12/2004 | | | | Sampled 9/27/2004 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | | On-Site ISVE System | |
| Compounds | Units | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | | Influent IN1 | |
| Dibenz(a,h)anthracene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Dibenzofuran | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Diethylphthalate | µg | 2.6 | J/J | ND | U | ND | U | ND | U | 0.34 | J/J | ND | U |
| Dimethylphthalate | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| di-n-Butylphthalate | µg | ND | U | 0.58 | J/J | 0.3 | J/J | ND | U | 0.77 | J/J | 0.64 | J/J |
| Di-n-Octylphthalate | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Fluoranthene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Fluorene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Hexachlorobenzene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Hexachlorobutadiene | µg | 2.9 | | 3.2 | | 7.8 | | 3.3 | | 5.7 | | 7.2 | |
| Hexachlorocyclopentadiene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Hexachloroethane | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Isophorone | µg | 19 | | ND | U | 30 | | ND | U | 28 | | 8 | |
| Naphthalene | µg | 290 | B/J | 88 | B/J | 96 | | 90 | | 75 | | 160 | |
| Nitrobenzene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| N-Nitrosodiphenylamine | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Pentachlorophenol | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Phenanthrene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| Phenol | µg | 23 | | ND | U | ND | U | ND | U | ND | U | ND | U |
| Pyrene | µg | ND | U | ND | U | ND | U | ND | U | ND | U | ND | U |
| **Total** | µg | **464.50** | | **244.39** | | **292.24** | | **274.31** | | **251.78** | | **444.84** | |

**Notes:**

_/ = Laboratory data qualifier
/_ = *Data validation qualifier*
ND = Non-detect
µg = micrograms

**Qualifiers:**

J = Result is estimated
U = below reported quantitation limit
JB = Analyte is detected in the compliance sample below the reporting limit and is an estimated concentration and the compound is also detected in the method blank resulting in a potential high bias.
B = The compound was detected in an associated blank

# Table 3.5
## Off Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data
## Third Quarter 2004
## American Chemical Services NPL Site
## Griffith, Indiana

| Well ID | Date | Flow (cfm) | Vac ("$H_2O$) | VOCs (ppm) | Comments |
|---|---|---|---|---|---|
| SVE-03 | 8/25/2004 | 0 | 44 | 102 | |
| | 9/30/2004 | 0 | 39 | NM | VOCs not measured |
| SVE-04 | 8/6/2004 | NA | 60 | NM | Liquid in pipe. |
| | 8/25/2004 | 108 | 59 | 405 | |
| | 9/30/2004 | 0 | 56 | NM | VOCs not measured |
| SVE-05 | 8/6/2004 | 57 | 56 | 58.7 | |
| | 8/25/2004 | 0 | 40 | 410 | |
| | 9/30/2004 | 0 | 39 | NM | VOCs not measured |
| SVE-11 | 8/25/2004 | - | 39 | 79.9 | |
| | 9/30/2004 | - | 39 | NM | VOCs not measured |
| SVE-13 | 8/6/2004 | 0 | 50 | 102 | |
| | 8/25/2004 | 0 | 36 | 406 | |
| SVE-16 | 8/25/2004 | 83 | 38 | 1023 | |
| | 9/30/2004 | 40 | 34 | NM | VOCs not measured |
| SVE-20 | 8/6/2004 | 55 | 60 | 3.4 | |
| | 8/25/2004 | 0 | 48 | 6.4 | |
| | 9/30/2004 | 0 | 46 | NM | VOCs not measured |
| SVE-23 | 8/6/2004 | 86 | 46 | 544 | |
| | 8/25/2004 | 112 | 36 | 1962 | |
| | 9/30/2004 | 94 | 34 | NM | VOCs not measured |
| SVE-25 | 8/6/2004 | 131 | 58 | 561 | |
| | 8/25/2004 | 116 | 45 | 1263 | |
| | 9/30/2004 | 116 | 44 | NM | VOCs not measured |
| SVE-26 | 8/6/2004 | 0 | 53 | 75.1 | Liquid in pipe. |
| | 8/25/2004 | 0 | 38 | 53 | |
| | 9/30/2004 | 0 | 36 | NM | VOCs not measured |
| SVE-29 | 8/6/2004 | 48 | 53 | 70.1 | |
| | 8/25/2004 | 27 | 34 | 573 | |
| | 9/30/2004 | 27 | 33 | NM | VOCs not measured |
| SVE-38 | 8/6/2004 | 0 | 57 | 1167 | |
| | 8/25/2004 | 0 | 43 | 2778 | |
| | 9/30/2004 | 27 | 40 | NM | VOCs not measured |
| SVE-39 | 8/6/2004 | 101 | 46 | 294 | |
| | 8/25/2004 | 102 | 37 | 486 | |
| | 9/30/2004 | 79 | 34 | NM | VOCs not measured |
| SVE-41 | 8/6/2004 | 0 | 53 | 1178 | |
| | 8/25/2004 | 0 | 42 | 2595 | |
| | 9/30/2004 | 28 | 40 | NM | VOCs not measured |

**Notes:**

"-" = data not collected

cfm = cubic feet per minute

" $H_20$ = inches of water

ppm = parts per million

VOCs = volatile organic compounds

No VOC readings were collected on 9/30/2004 due to a photoionization detector (PID) malfunction.

**Table 3.6**
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data**
**Third Quarter 2004**
**American Chemical Services NPL Site**
**Griffith, Indiana**

| Date | KP1 Line Press (psia) | KP1 Flow (cfm) | KP1 Vacuum (" $H_2O$) | KP2 Line Press (psia) | KP2 Flow (scfm) | KP2 Vac (" $H_2O$) | OFCA1 Vac (" $H_2O$) | OFCA2 Vac (" $H_2O$) | OFCA3 Vac (" $H_2O$) | Dilution Flow (cfm) | Blower Inf Line Press (psia) | Blower Inf Flow (scfm) | Blower Inf Vac (" $H_2O$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/6/2004 | 13.0 | - | 52 | 13.0 | 608 | 50 | 50 | 40 | 47 | 0 | 12.8 | 721 | 56 |
| 8/25/2004 | 13.2 | - | 42 | 13.3 | - | 40 | 40 | 30 | 38 | 0 | 13.0 | 229 | 48 |
| 9/30/2004 | 13.4 | - | 40 | 13.4 | 1002 | 39 | 39 | 30 | 36 | 0 | 13.1 | 710 | 47 |

| Date | Blower Inf VOC (ppm) | Blower Inf Temp. | Blower Eff Line Press | Blower Eff Flow | Blower Eff Press | Blower Eff VOC | Blower Eff Temp. | Filter Diff Press | Ambient Temperature | Barometric Pressure | Humidity (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/6/2004 | - | 74 | 15.7 | 958 | 24.0 | - | 134 | 6.0 | 70 | 30.20 | 56 |
| 8/25/2004 | - | 78 | 15.7 | 981 | 27.5 | - | 141 | 6.5 | 72 | 29.92 | 78 |
| 9/30/2004 | - | 75 | 15.8 | 992 | 27.0 | - | 131 | 6.5 | 70 | 30.12 | 46 |

Notes:
"-" = data not collected
cfm = cubic feet per minute
"$H_2O$ = inches of water
ppm = parts per million
VOCs = volatile organic compounds
psia = pounds per square inch, atmosphere
" Hg = inches of mercury
"F = degrees Fahrenheit

# Table 3.7
## SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data
## Third Quarter 2004
## American Chemical Services NPL Site
## Griffith, Indiana

| Well ID | Date | Flow (cfm) | Vac ("$H_2O$) | VOCs (ppm) | Comments |
|---|---|---|---|---|---|
| SVE-44 | 8/6/2004 | 16 | 100 | 55.1 | Vac reading actually >100". |
| SVE-45 | 9/30/2004 | 12 | 60 | NM | VOCs not measured |
| SVE-46 | 8/6/2004 | NA | 100 | 264 | Vac reading actually >100". Liquid in line prevented measurement of diff press. |
| SVE-47 | 9/30/2004 | 27 | 64 | NM | VOCs not measured |
| SVE-48 | 9/30/2004 | NA | 63 | NM | VOCs not measured Obstruction in riser. |
| SVE-49 | 8/6/2004 | 11 | 100 | 496 | Vac reading actually >100". |
| SVE-51 | 8/6/2004 | 13 | 100 | 620 | Vac reading actually >100". |
| SVE-55 | 9/30/2004 | 32 | 57 | NM | VOCs not measured |
| SVE-56 | 9/30/2004 | 101 | 59 | NM | VOCs not measured |
| SVE-59 | 9/30/2004 | 0 | 60 | NM | VOCs not measured |
| SVE-64 | 8/6/2004 | 33 | 100 | 970 | Vac reading actually >100". |
| | 9/30/2004 | 18 | 64 | NM | VOCs not measured |
| SVE-66 | 8/6/2004 | 13 | 100 | 1533 | Vac reading actually >100". |
| SVE-69 | 9/30/2004 | 101 | 60 | NM | VOCs not measured |
| SVE-70 | 9/30/2004 | 25 | 66 | NM | VOCs not measured |
| SVE-74 | 9/30/2004 | 22 | 68 | NM | VOCs not measured |
| SVE-75 | 9/30/2004 | 135 | 63 | NM | VOCs not measured |
| SVE-76 | 9/30/2004 | 181 | 60 | NM | |
| SVE-80 | 8/6/2004 | 12 | 100 | 741 | Vac reading actually >100". |
| SVE-82 | 8/6/2004 | 12 | 100 | 940 | Vac reading actually >100". |
| SVE-83 | 8/6/2004 | 25 | 100 | 1920 | Vac reading actually >100". |
| | 9/30/2004 | 0 | 75 | NM | VOCs not measured |
| SVE-87 | 9/30/2004 | 80 | 68 | NM | VOCs not measured |

**Notes:**

"-" = data not collected
cfm = cubic feet per minute
" $H_20$ = *inches of water*
NA = Not analyzed
NM = Not measured
ppm = parts per million
VOCs = Volatile organic compounds
Vac = Vacuum
No VOC readings were collected on 9/30/2004 due to a photoionization detector (PID) malfunction.

# Table 3.8
## SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data
## Third Quarter 2004
## American Chemical Services NPL Site
## Griffith, Indiana

| Date | Line Pressure (psia) | Flow (scfm) | Vac (" $H_2O$) | Line Press (psia) | Flow (scfm) | Vac (" $H_2O$) | Dilution Flow (cfm) | Blower Inf Line Press (psia) | Blower Inf Flow (scfm) | Blower Inf Vac (" H2O) | Blower Inf VOC (ppm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/6/2004 | 11.2 | 303 | 100 | 11.2 | 214 | 100 | 0 | 11.2 | 0 | 100 | - |
| 9/30/2004 | 12.2 | 609 | 72 | 12.2 | 157 | 73 | 0 | 14.8 | 0 | 0 | - |

| Date | Blower Inf Temp. (°F) | Blower Eff Line Press (psia) | Blower Eff Flow (scfm) | Blower Eff Press (" H2O) | Blower Eff VOC (ppm) | Blower Eff Temp. (°F) | Filter Diff Press (" H2O) | Ambient Temperature (°F) | Barometric Pressure (" Hg) | Humidity (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/6/2004 | 70 | 14.8 | 791 | 0.0 | - | 106 | 13.0 | 70 | 30.20 | 56 |
| 9/30/2004 | 75 | 14.9 | 1208 | 4.0 | - | 150 | 17.5 | 70 | 30.12 | 46 |

**Notes:**

"-" = data not collected
cfm = cubic feet per minute
"$H_2O$ = inches of water
ppm = parts per million
VOCs = volatile organic compounds
psia = pounds per square inch, atmosphere
" Hg = inches of mercury
°F = degrees Fahrenheit

# Table 6.1
## Water Table Elevations Across the Barrier Wall and Near the PGCS
## Third Quarter 2004
## American Chemical Service NPL Site
## Griffith, Indiana

**Upper Aquifer Wells**

| Well Designation | Reference Points | | | 9/20/2004 | | Notes | Difference Across Barrier Wall (if applicable)[1] |
|---|---|---|---|---|---|---|---|
| | East | North | TOIC | level | Elevation | | |
| MW11 | 6377 | 7329 | 640.47 | 8.93 | 631.54 | | n/a |
| MW13 | 5050 | 7814 | 634.08 | 4.58 | 629.50 | | n/a |
| MW37 | 5395 | 7976 | 636.78 | 7.52 | 629.26 | | n/a |
| MW46 | 4526 | 7424 | 633.32 | 3.15 | 630.17 | | n/a |
| MW48 | 5669 | 7814 | 636.36 | 7.01 | 629.35 | | n/a |
| MW49 | 5551 | 7650 | 637.00 | 7.41 | 629.59 | | n/a |

**Staff Gauges & Piezometers**

| Well Designation | Reference Points | | | 9/20/2004 | | Notes | Difference Across Barrier Wall (if applicable)[1] |
|---|---|---|---|---|---|---|---|
| | East | North | TOSG | level | Elevation | | |
| P23 | 4689 | 7018 | 636.18 | 7.62 | 628.56 | | n/a |
| P25 | 5131 | 7510 | 635.01 | 6.49 | 628.52 | | n/a |
| P26 | 4764 | 7309 | 634.23 | 6.23 | 628.00 | | n/a |
| P27 | 4904 | 7020 | 639.70 | 11.43 | 628.27 | | n/a |
| P28 | 5883 | 7486 | 644.53 | 13.78 | 630.75 | | n/a |
| P32 | 5746 | 7026 | 642.32 | 12.65 | 629.67 | | n/a |
| P40 | 5931 | 7241 | 638.77 | 7.25 | 631.52 | | n/a |
| P41 | 5663 | 7377 | 637.23 | 6.20 | 631.03 | | n/a |
| P49 | 5145 | 6949 | 638.98 | 9.66 | 629.32 | | n/a |
| SG13 | 4819 | 7209 | 631.53 | 4.5 | 630.0 | TOSG = 6.0' mark | n/a |

# Table 6.1
## Water Table Elevations Across the Barrier Wall and Near the PGCS
## Third Quarter 2004
## American Chemical Service NPL Site
## Griffith, Indiana

**PGCS Piezometer Sets**

| Well Designation | Reference Points | | | 9/20/2004 | | Notes | Difference Across Barrier Wall (if applicable)[1] |
|---|---|---|---|---|---|---|---|
| | East | North | TOC | level | Elevation | | |
| P81 | 5577 | 7581 | 636.19 | DRY | DRY | Damaged | n/a |
| P82 | 5577 | 7572 | 635.77 | 6.99 | 628.78 | | n/a |
| P83 | 5577 | 7561.6 | 635.95 | 6.52 | 629.43 | | n/a |
| P84 | 5322 | 7603 | 634.35 | 5.77 | 628.58 | | n/a |
| P85 | 5326 | 7594 | 634.08 | 5.48 | 628.60 | | n/a |
| P86 | 5329 | 7585 | 634.41 | 5.80 | 628.61 | | n/a |
| P87 | 5121 | 7466 | 633.88 | 5.37 | 628.51 | | n/a |
| P88 | 5130 | 7460 | 633.90 | 5.46 | 628.44 | | n/a |
| P89 | 5137 | 7454 | 634.02 | 5.62 | 628.40 | | n/a |
| P90 | 4881 | 7152 | 634.45 | 5.68 | 628.77 | | n/a |
| P91 | 4889 | 7145 | 634.59 | 6.04 | 628.55 | | n/a |
| P92 | 4896 | 7138.1 | 633.87 | 5.21 | 628.66 | | n/a |

# Table 6.1
## Water Table Elevations Across the Barrier Wall and Near the PGCS
## Third Quarter 2004
## American Chemical Service NPL Site
## Griffith, Indiana

**BWES Water Level and Piezometer Pairs**

| Well Designation | Reference Points | | | 9/20/2004 | | Notes | Difference Across Barrier Wall (if applicable)[1] |
|---|---|---|---|---|---|---|---|
| | East | North | TOC | level | Elevation | | |
| P93 - Outside BW | 5136 | 7067 | 638.79 | CNM | CNM | Does not exist - to be replaced | n/a |
| P94 - Inside BW | 5146 | 7061 | 638.98 | CNM | CNM | Does not exist - to be replaced | |
| P95 - Outside BW | 5146 | 6532 | 638.58 | 10.30 | 628.28 | | 0.11 |
| P96 - Inside BW | 5156 | 6537 | 641.26 | 12.87 | 628.39 | | |
| P105 - Outside BW | 5885 | 6678 | 638.86 | 6.71 | 632.15 | | -2.86 |
| P106 - Inside BW | 5871 | 6685 | 638.10 | 8.81 | 629.29 | | |
| P107 - Outside BW | 5766 | 7339 | 637.42 | 6.00 | 631.42 | | -1.29 |
| P108 - Inside BW | 5757 | 7324 | 638.13 | 8.00 | 630.13 | | |
| P109 - Outside BW | 5740 | 6387 | 644.30 | 12.00 | 632.30 | | -4.34 |
| P110 - Inside BW | 5705 | 6382 | 647.68 | 19.72 | 627.96 | | |
| P111 - Outside BW | 5551 | 5950 | 650.03 | 17.80 | 632.23 | | -4.86 |
| P112 - Inside BW | 5525 | 5960 | 653.36 | 25.99 | 627.37 | | |
| P113 - Inside BW | 5309 | 5693 | 657.53 | 30.14 | 627.39 | | -4.40 |
| ORCPZ102 - Outside BW | 5331 | 5612 | 652.47 | 20.68 | 631.79 | | |
| P114 - Inside BW | 5035 | 5729 | 653.69 | 25.98 | 627.71 | | -5.69 |
| P115 - Outside BW | 4970 | 5708 | 652.50 | 19.10 | 633.40 | | |
| P116 - Inside BW | 5031 | 6087 | 646.26 | 18.48 | 627.78 | | -2.31 |
| P117 - Outside BW | 5014 | 6087 | 643.93 | 13.84 | 630.09 | | |
| P118 - Inside BW | 5402 | 6539 | 645.52 | 17.90 | 627.62 | | n/a |

**Notes:**

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOIC = top of inner casing

TOC = top of casing

TOSG = top of staff gauge

CNM = could not measure (reason given under "Notes" column)

n/a = not applicable

1 = A positive value indicates that the water level is higher inside the barrier wall. A negative value indicates that the water level is lower inside the barrier wall.

# Table 6.2
# Water Levels Inside Barrier Wall
# Third Quarter 2004
# American Chemical Service NPL Site
# Griffith, Indiana

| Date | On-Site Area | | | | | |
|---|---|---|---|---|---|---|
| | Target Level | P-29 | P-31 | P-32 | P-36 | P-49 |
| 7/2/2004 | 629.0 | 630.4 | 630.9 | 630.0 | 624.9 | 629.7 |
| 7/30/2004 | 629.0 | 630.4 | 630.9 | 630.7 | 624.9 | 629.5 |
| 9/17/2004 | 629.0 | 630.4 | 630.9 | 629.7 | 625.8 | 629.4 |

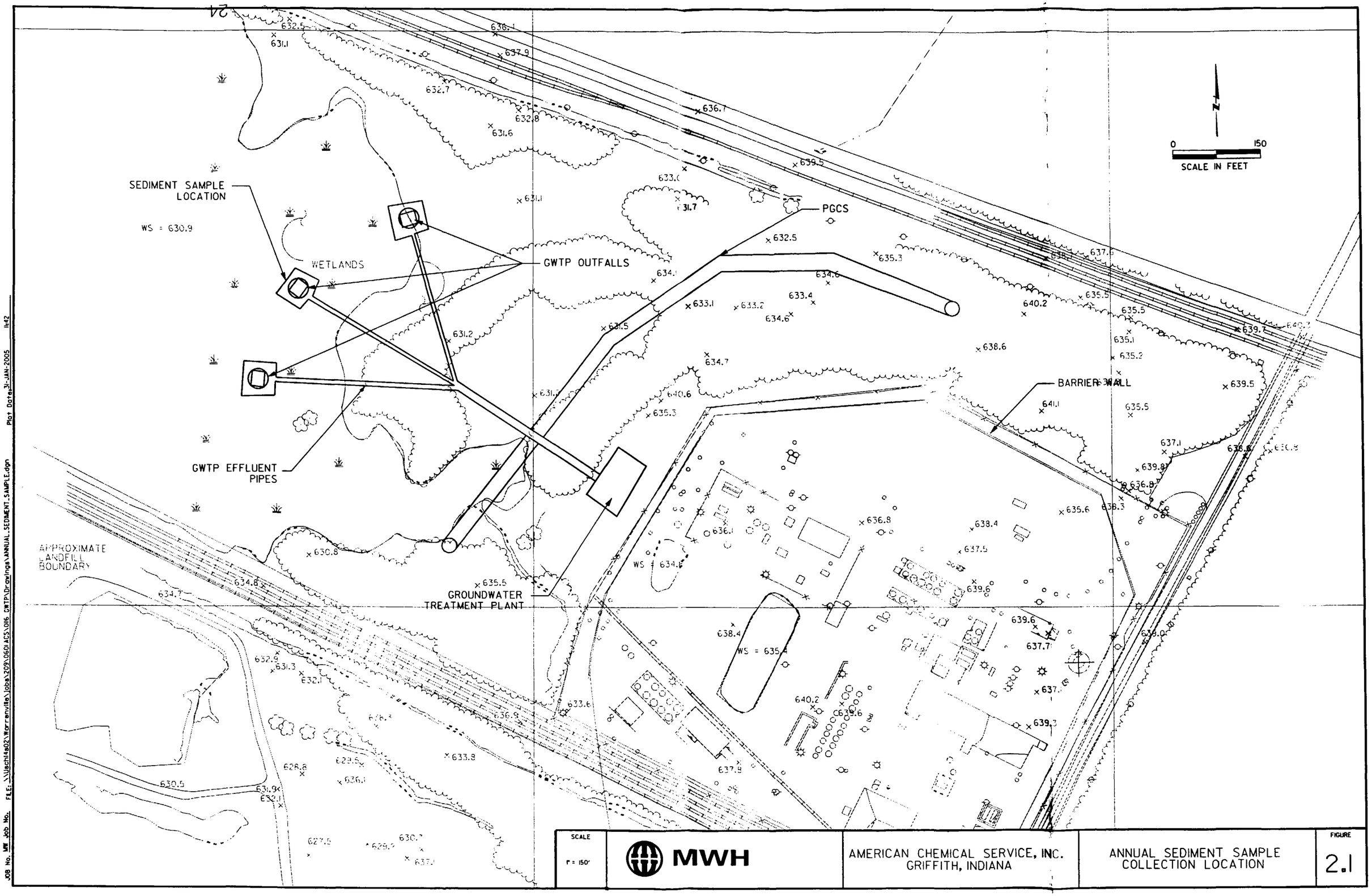
| Date | Off-Site Area | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Target Level | P-96 | P-110 | P-112 | P-113 | P-114 | P-116 | P-118 | AS-7 | AS-8 | AS-9 |
| 7/2/2004 | 626.0 | 624.6 | 627.9 | 627.2 | 626.9 | 627.3 | 627.0 | 627.4 | 628.18 | 628.55 | 627.80 |
| 7/30/2004 | 626.0 | 624.9 | 627.9 | 627.3 | 627.0 | 627.4 | 627.1 | 627.4 | 628.09 | 628.35 | 627.75 |
| 9/17/2004 | 626.0 | 625.1 | 628.0 | 627.4 | 627.4 | 627.8 | 627.9 | 627.6 | 628.22 | 628.75 | 627.93 |

**Notes:**
All water level elevations are in feet AMSL

# Figures

MWH

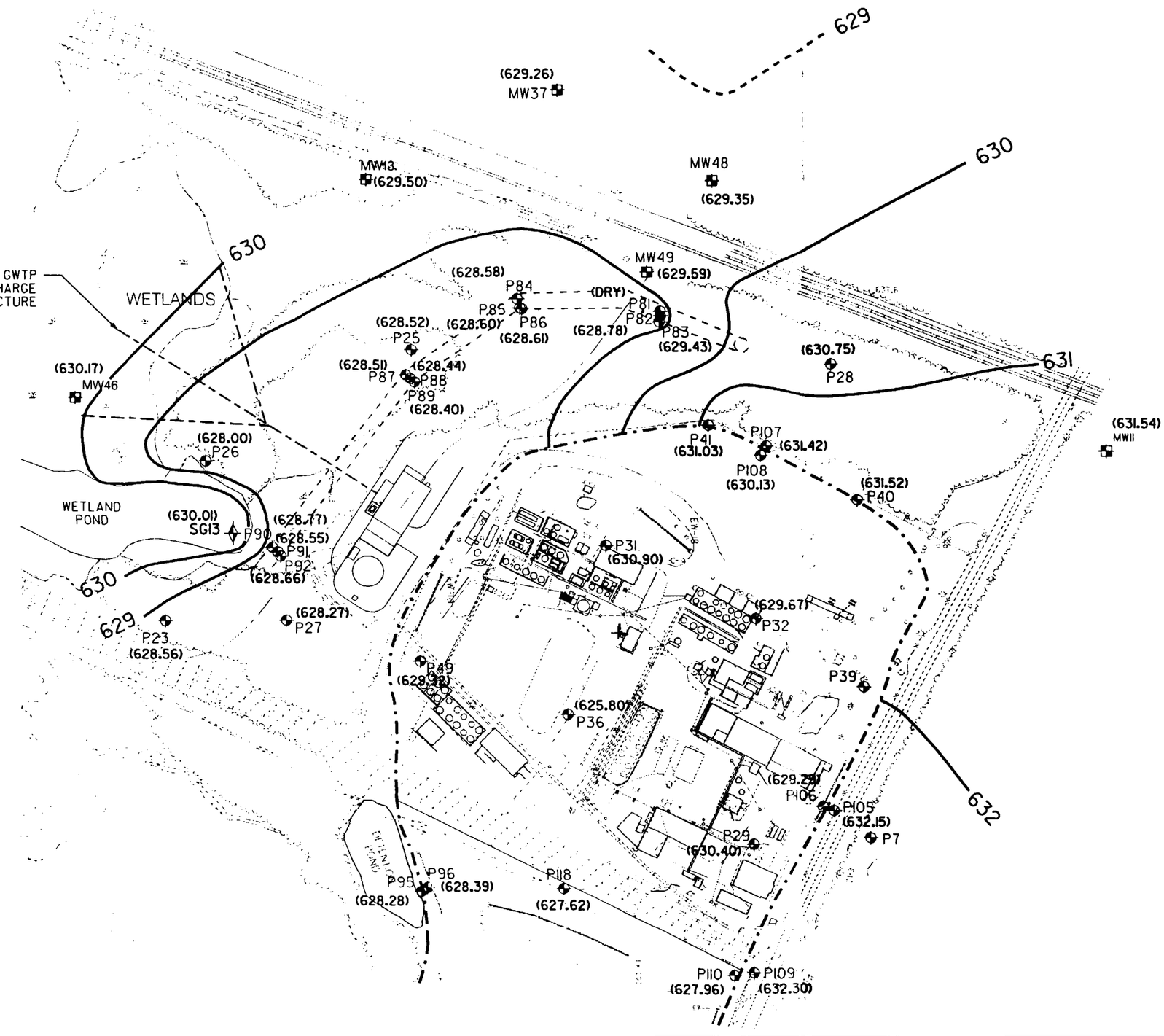
# FIGURES




| SCALE | | | |
|---|---|---|---|
| 1" = 150' | MWH | AMERICAN CHEMICAL SERVICE, INC.<br>GRIFFITH, INDIANA | ANNUAL SEDIMENT SAMPLE COLLECTION LOCATION |

FIGURE 2.1

JOB No. MW Job No. FILE: \\Uschi4s02\Warrenville\Jobs\209\0601ACS\0116 GWTP\Drawings\ANNUAL_SEDIMENT_SAMPLE.dgn Plot Date: 31-JAN-2005 11:42




N

0 200
SCALE IN FEET

LEGEND

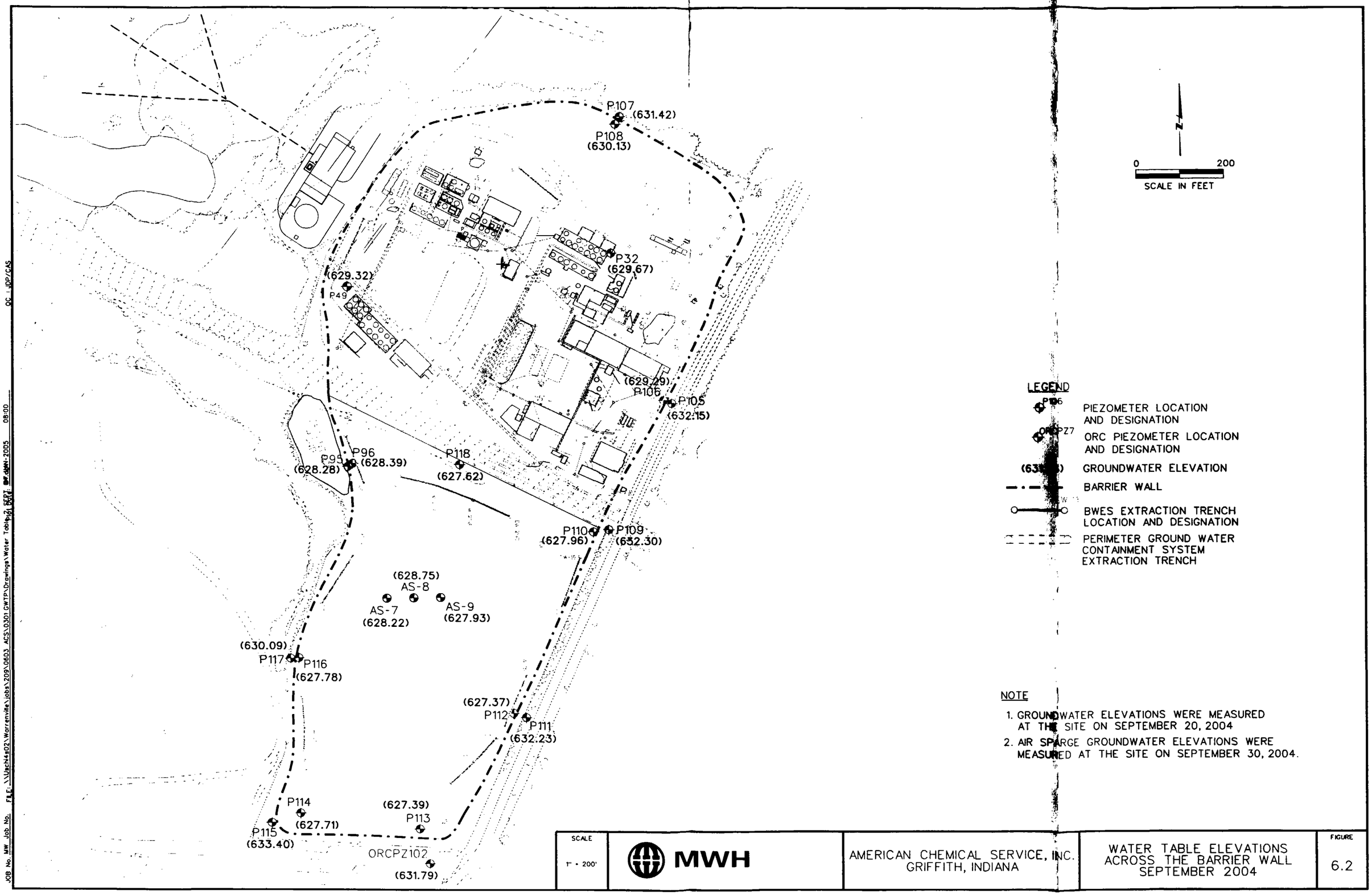
- P106 — PIEZOMETER LOCATION AND DESIGNATION
- SG13 — STAFF GAUGE LOCATION AND DESIGNATION
- MW13 — MONITORING WELL LOCATION AND DESIGNATION
- (630.40) — GROUNDWATER ELEVATION
- BARRIER WALL
- PERIMETER GROUND WATER CONTAINMENT SYSTEM EXTRACTION TRENCH
- EW-11 — BWES EXTRACTION TRENCH LOCATION AND DESIGNATION
- 631 — GROUNDWATER ELEVATION CONTOUR BASED ON GROUNDWATER ELEVATION DATA
- 631 — CONTOUR LINE DASHED WHERE ELEVATION IS INFERRED

NOTE

1. GROUNDWATER ELEVATIONS WERE MEASURED AT THE SITE ON SEPTEMBER 20, 2004. WATER LEVELS FOR PIEZOMETERS 29, 31, AND 36 WERE MEASURED ON SEPTEMBER 17, 2004.
2. SOME CONTOURS MADE BY REFERENCING GROUNDWATER ELEVATIONS NOT SHOWN ON MAP

| SCALE | | | | FIGURE |
|---|---|---|---|---|
| 1" = 200' | MWH | AMERICAN CHEMICAL SERVICE, INC.<br>GRIFFITH, INDIANA | WATER TABLE ELEVATIONS<br>NEAR THE PGCS<br>SEPTEMBER 2004 | 6.1 |

JOB No. MW Job No. FILE: \\Uschi4s02\Warrenville\Jobs\209\0603 ACS\030\GWTP\Drawings\Water Table 1Sept 04.dgn Plot Date: 31-JAN-2005 12:39
OC 1 JDP/CAS



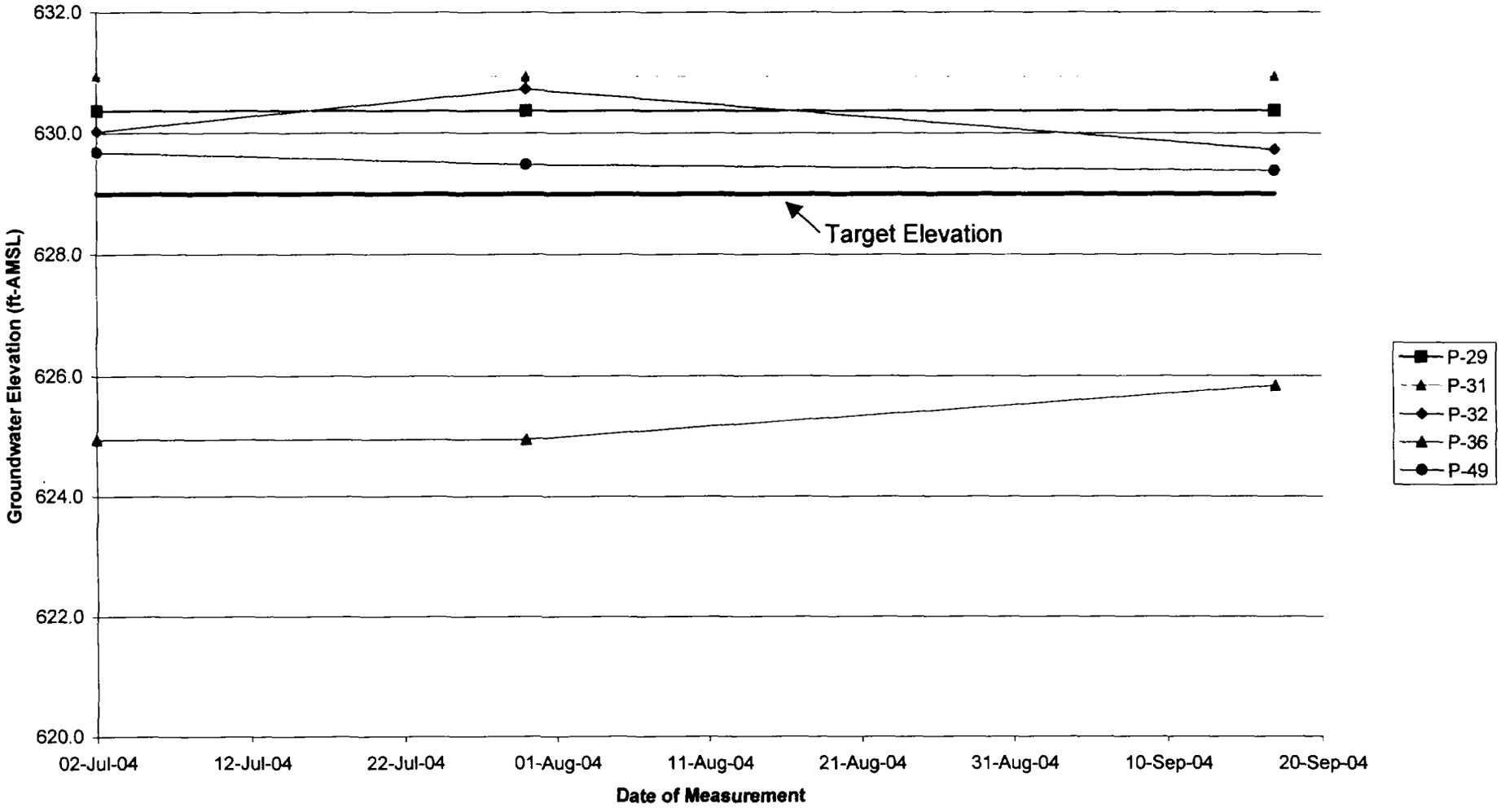

NOTE

1. GROUNDWATER ELEVATIONS WERE MEASURED AT THE SITE ON SEPTEMBER 20, 2004
2. AIR SPARGE GROUNDWATER ELEVATIONS WERE MEASURED AT THE SITE ON SEPTEMBER 30, 2004.

| SCALE | | | | FIGURE |
|---|---|---|---|---|
| 1" = 200' | MWH | AMERICAN CHEMICAL SERVICE, INC.<br>GRIFFITH, INDIANA | WATER TABLE ELEVATIONS ACROSS THE BARRIER WALL<br>SEPTEMBER 2004 | 6.2 |

JOB No. MW Job No. FILE: \\Uschi4s02\Warrenville\jobs\209\0603 ACS\0301 GWTP\Drawings\Water Table\ Plot Date: 08:00 QC : JDP/CAS

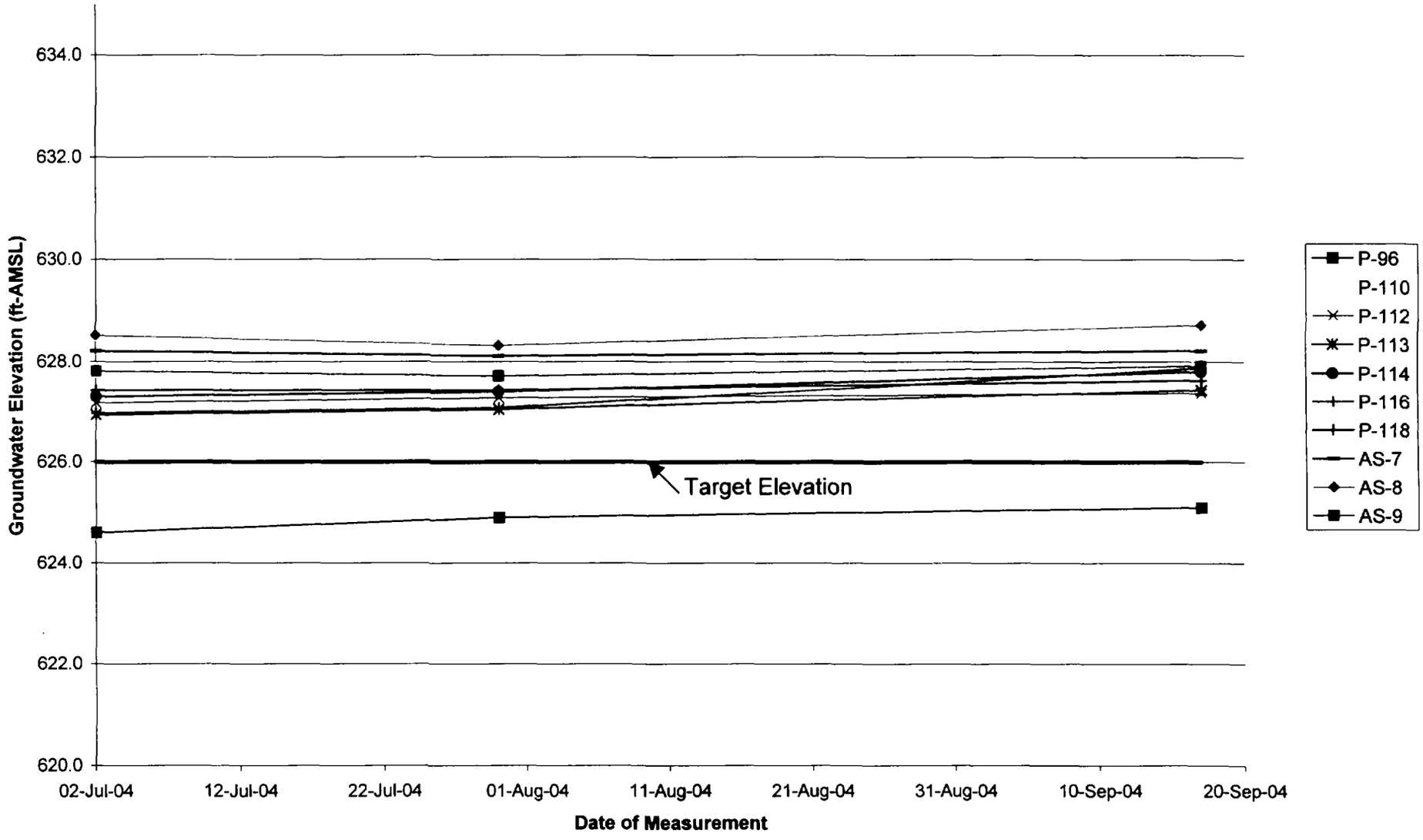
**Figure 6.3**
**Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)**
**ACS NPL Site**
**Griffith, Indiana**




**Note:**
Hollow Points represent dry piezometers (data used for graphing purposes only).
The bottom elevation of the piezometers may vary due to silting or removal of silt.

ALC/JDP/mbm
J:\209\0603 ACS\0301 GWTP\6030301a130.xls\SBPA GW Trends

**Figure 6.4**
**Water Level Trends Inside the Barrier Wall (Off-Site Area)**
**ACS NPL Site**
**Griffith, Indiana**




ALC/JDP/mbm
J:\209\0603 ACS\0301GWTP\6030301a130.xls\Off-Site GW Trends

# APPENDIX A

# EFFLUENT ANALYTICAL DATA

**July 8, 2004 Compliance Sample**
**Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Sample wt/vol: 25 (g/ml) ML Lab File ID: 362801RB62

Level: (low/med) LOW Date Received: 07/09/04

% Moisture: not dec. _____ Date Analyzed: 07/15/04

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 0.50 | U | UJ |
| 75-01-4 | Vinyl Chloride | 0.50 | U | ↓ |
| 74-83-9 | Bromomethane | 0.21 | J | J |
| 75-00-3 | Chloroethane | 0.50 | U | UJ |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U | ↓ |
| 75-15-0 | Carbon disulfide | 0.50 | U | ↓ |
| 67-64-1 | Acetone | 2.6 | | J |
| 75-09-2 | Methylene Chloride | 0.69 | | J |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U | UJ |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U | UJ |
| 156-59-2 | cis-1,2-Dichloroethene | 0.27 | J | J |
| 78-93-3 | 2-butanone | 2.5 | U | UJ |
| 67-66-3 | Chloroform | 0.50 | U | ↓ |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U | ↓ |
| 56-23-5 | Carbon Tetrachloride | 0.50 | U | ↓ |
| 71-43-2 | Benzene | 0.50 | U | ↓ |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U | ↓ |
| 79-01-6 | Trichloroethene | 0.5 ~~0.14~~ | JB | UBJ |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U | UJ |
| 75-27-4 | Bromodichloromethane | 0.50 | U | ↓ |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U | ↓ |
| 108-10-1 | 4-Methyl-2-pentanone | 2.5 | U | ↓ |
| 108-88-3 | Toluene | 0.40 | J | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U | UJ |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U | ↓ |
| 127-18-4 | Tetrachloroethene | 0.50 | U | ↓ |
| 591-78-6 | 2-hexanone | 2.5 | U | ↓ |
| 124-48-1 | Dibromochloromethane | 0.50 | U | ↓ |
| 108-90-7 | Chlorobenzene | 0.50 | U | ↓ |
| 100-41-4 | Ethylbenzene | 0.50 | U | ↓ |
| 108-38-3 | m,p-Xylene | 1.0 | U | ↓ |
| 95-47-6 | o-Xylene | 0.50 | U | ↓ |
| 100-42-5 | Styrene | 0.50 | U | ↓ |

FORM I VOA

8/24/04

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Sample wt/vol: 25 (g/ml) ML Lab File ID: 362801RB62

Level: (low/med) LOW Date Received: 07/09/04

% Moisture: not dec. _____ Date Analyzed: 07/15/04

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 75-25-2 | Bromoform | 0.50 | U UJ |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.27 | J |
| 1330-20-7 | Xylene (total) | 0.50 | U UJ |

FORM I VOA

8/24/04

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 362801A66

Level: (low/med) LOW Date Received: 07/09/04

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/10/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/12/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 111-44-4 | Bis(2-chloroethyl)ether | 9.6 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 117-81-7 | bis(2-ethylhexyl)Phthalate | 6.0 | U |

FORM I SV 8270C

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8270C-SIM

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 362801A60

Level: (low/med) LOW Date Received: 07/09/04

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/10/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/19/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 87-86-5 | Pentachlorophenol | 1.00 | U |

FORM I SV

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: 8082

Lab Code: COMPU Case No.: SAS No.: SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/04

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/04

Concentrated Extract Volume: 2500(uL) Date Analyzed: 07/15/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 12674-11-2------ | Aroclor-1016 | 0.47 | U |
| 11104-28-2------ | Aroclor-1221 | 0.63 | U |
| 11141-16-5------ | Aroclor-1232 | 0.47 | U |
| 53469-21-9------ | Aroclor-1242 | 0.31 | U |
| 12672-29-6------ | Aroclor-1248 | 0.31 | U |
| 11097-69-1------ | Aroclor-1254 | 0.31 | U |
| 11096-82-5------ | Aroclor-1260 | 0.47 | U |

FORM I PEST

8/24/04

# SW846 METALS

-1-

## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 3628

Matrix (soil/water): WATER Lab Sample ID: 362801

Level (low/med): LOW Date Received: 7/9/04

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 3.2 | B | | P |
| 7440-41-7 | Beryllium | 0.10 | U | | P |
| 7440-43-9 | Cadmium | 0.26 | B | UB | P |
| 7439-97-6 | Mercury | 0.64 | U | UJ | CV |
| 7439-96-5 | Manganese | 7.9 | B | UB | P |
| 7782-49-2 | Selenium | 2.4 | U | | P |
| 7440-28-0 | Thallium | 2.8 | U | | P |
| 7440-66-6 | Zinc | 7.6 | B | | P |

Taylor

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: ACS 7010311

Lab Code: CompuChe Case No.: 3628 NRAS No.: _____ SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Level: (low/med) LOW Date Received: 07/09/2004

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): mg/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 160.2 | TSS | 3.20 | | B | |

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM IA-IN ILM05.2

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: ACS 7010311

Lab Code: CompuChe Case No.: 3628 NRAS No.: _____ SDG No.: 3628

Matrix: (soil/water) WATER Lab Sample ID: 362801

Level: (low/med) LOW Date Received: 07/09/2004

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): PH UNITS

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 150.1 | pH | 7.11 | | J | |

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

8/24/04

FORM IA-IN ILM05.2

**August 12, 2004 Compliance Sample**
**Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Name: COMPUCHEM Method: 8260B

Code: LIBRTY Case No.: SAS No.: SDG No.: 3947

rix: (soil/water) WATER Lab Sample ID: 394701

mple wt/vol: 25 (g/ml) ML Lab File ID: 394701A61

el: (low/med) LOW Date Received: 08/13/04

Moisture: not dec. _____ Date Analyzed: 08/22/04

C-Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 0.13 | JB 0.5UBJ |
| 75-01-4 | Vinyl Chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U UJ |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 67-64-1 | Acetone | 1.3 | JB UBJ |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-butanone | 2.5 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 56-23-5 | Carbon Tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.40 | J J |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |
| 79-01-6 | Trichloroethene | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 2.5 | U |
| 108-88-3 | Toluene | 13 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-hexanone | 2.5 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 1.7 | J |
| 108-38-3 | m,p-Xylene | 8.0 | ↓ |
| 95-47-6 | o-Xylene | 3.8 | ↓ |
| 100-42-5 | Styrene | 0.50 | U |



011

9/3/04

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

ab Name: COMPUCHEM Method: 8260B

a Code: LIBRTY Case No.: SAS No.: SDG No.: 3947

a rix: (soil/water) WATER Lab Sample ID: 394701

ample wt/vol: 25 (g/ml) ML Lab File ID: 394701A61

el: (low/med) LOW Date Received: 08/13/04

Moisture: not dec. _____ Date Analyzed: 08/22/04

Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 75-25-2 | Bromoform | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.10 | JB 0.5uBJ |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.50 | U |
| 1330-20-7 | Xylene (total) | 14 | J |

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: ACS 7010311

Lab Code: CompuChe Case No.: 3947 NRAS No.: _____ SDG No.: 3947

Matrix: (soil/water) WATER Lab Sample ID: 394701

Level: (low/med) LOW Date Received: 08/13/2004

% Solids: 0.0

Concentration Units ( ug/L or mg/kg dry weight): PH UNITS

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 150.1 | pH | 7.62 | | | J |

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

9/3/04

FORM IA-IN ILM05.2

**September 7, 2004 Compliance Sample**
**Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

b Name: COMPUCHEM Method: 8260B

Code: LIBRTY Case No.: SAS No.: SDG No.: 4210

trix: (soil/water) WATER Lab Sample ID: 421001

Sample wt/vol: 25 (g/ml) ML Lab File ID: 421001B61

vel: (low/med) LOW Date Received: 09/08/04

% Moisture: not dec. _____ Date Analyzed: 09/16/04

Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl Chloride | 0.50 | U. |
| 74-83-9 | Bromomethane | 0.18 | J |
| 75-00-3 | Chloroethane | 0.33 | J |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 67-64-1 | Acetone | 2.5 | |
| 75-09-2 | Methylene Chloride | 3.3 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-butanone | 2.5 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 56-23-5 | Carbon Tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |
| 79-01-6 | Trichloroethene | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 2.5 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-hexanone | 2.5 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 108-38-3 | m,p-Xylene | 1.0 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |

J

FORM I VOA

10/4/04

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Name: COMPUCHEM Method: 8260B

Code: LIBRTY Case No.: SAS No.: SDG No.: 4210

Matrix: (soil/water) WATER Lab Sample ID: 421001

Sample wt/vol: 25 (g/ml) ML Lab File ID: 421001B61

Level: (low/med) LOW Date Received: 09/08/04

% Moisture: not dec. _____ Date Analyzed: 09/16/04

Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 75-25-2 | Bromoform | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.50 | U |
| 1330-20-7 | Xylene (total) | 0.50 | U |

FORM I VOA

10/4/04

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: ACS 7010311

Lab Code: CompuChe Case No.: 4210 NRAS No.: _____ SDG No.: 4210

Matrix: (soil/water) WATER Lab Sample ID: 421001

Level: (low/med) LOW Date Received: 09/08/2004

% Solids: 0.0

Concentration Units ( ug/L or mg/kg dry weight): PH UNITS

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 150.1 | pH | 7.72 | | | |

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

9 10/4/04

FORM IA-IN ILM05.2

# APPENDIX B

# ANNUAL SEDIMENT SAMPLE ANALYTICAL DATA

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ACSSS92704-01

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 4501

Matrix: (soil/water) SOIL Lab Sample ID: 450101

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 50 decanted: (Y/N) N Date Received: 09/28/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/04/04

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/07/04

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 62 | U |
| 11104-28-2 | Aroclor-1221 | 84 | U |
| 11141-16-5 | Aroclor-1232 | 62 | U |
| 53469-21-9 | Aroclor-1242 | 42 | U |
| 12672-29-6 | Aroclor-1248 | 42 | U |
| 11097-69-1 | Aroclor-1254 | 42 | U |
| 11096-82-5 | Aroclor-1260 | 62 | U |

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FORM I PEST

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ACSSS92704-02

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 4501

Matrix: (soil/water) SOIL Lab Sample ID: 450102

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 60 decanted: (Y/N) N Date Received: 09/28/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:10/04/04

Concentrated Extract Volume: 5000(uL) Date Analyzed: 10/07/04

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 78 | U |
| 11104-28-2 | Aroclor-1221 | 110 | U |
| 11141-16-5 | Aroclor-1232 | 78 | U |
| 53469-21-9 | Aroclor-1242 | 53 | U |
| 12672-29-6 | Aroclor-1248 | 53 | U |
| 11097-69-1 | Aroclor-1254 | 53 | U |
| 11096-82-5 | Aroclor-1260 | 78 | U |

SC 12/5/04

FORM I PEST

# APPENDIX C

# CATALYTIC OXIDIZER OFF-GAS ANALYTICAL DATA

# September 16, 2004 Off-Gas Sample Laboratory Results

# AIR TOXICS LTD.

**SAMPLE NAME: ACS CATOXEFF SEP16**

**ID#: 0409335-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 27 | 260 | 71 | 690 |
| Bromomethane | 27 | Not Detected | 110 | Not Detected |
| Chloroethane | 27 | 150 | 73 | 400 |
| 1,1-Dichloroethene | 27 | 260 | 110 | 1000 |
| Methylene Chloride | 27 | 210 5 | 96 | 730 |
| 1,1-Dichloroethane | 27 | 110 | 110 | 470 |
| cis-1,2-Dichloroethene | 27 | 3200 | 110 | 13000 |
| Chloroform | 27 | 30 | 130 | 150 |
| 1,1,1-Trichloroethane | 27 | 95 | 150 | 530 |
| Carbon Tetrachloride | 27 | Not Detected | 170 | Not Detected |
| Benzene | 27 | 1400 | 88 | 4500 |
| 1,2-Dichloroethane | 27 | 36 | 110 | 150 |
| Trichloroethene | 27 | 1000 | 150 | 5600 |
| 1,2-Dichloropropane | 27 | Not Detected | 130 | Not Detected |
| cis-1,3-Dichloropropene | 27 | Not Detected | 120 | Not Detected |
| Toluene | 27 | 1000 | 100 | 3900 |
| trans-1,3-Dichloropropene | 27 | Not Detected | 120 | Not Detected |
| 1,1,2-Trichloroethane | 27 | Not Detected | 150 | Not Detected |
| Tetrachloroethene | 27 | 5200 | 190 | 36000 |
| Chlorobenzene | 27 | 150 | 130 | 690 |
| Ethyl Benzene | 27 | 110 | 120 | 490 |
| m,p-Xylene | 27 | 440 | 120 | 2000 |
| o-Xylene | 27 | 180 | 120 | 780 |
| Styrene | 27 | 44 | 120 | 190 |
| 1,1,2,2-Tetrachloroethane | 27 | 4.9 J 15 | 190 | 34 J |
| Bromodichloromethane | 27 | Not Detected | 180 | Not Detected |
| Dibromochloromethane | 27 | Not Detected | 240 | Not Detected |
| Chloromethane | 110 | 200 | 230 | 430 |
| Acetone | 110 | 260 | 260 | 630 |
| Carbon Disulfide | 110 | Not Detected | 340 | Not Detected |
| trans-1,2-Dichloroethene | 110 | 570 | 440 | 2300 |
| 2-Butanone (Methyl Ethyl Ketone) | 110 | 120 | 330 | 360 |
| 4-Methyl-2-pentanone | 110 | 95 J 15 | 450 | 400 J |
| 2-Hexanone | 110 | Not Detected | 450 | Not Detected |
| Bromoform | 110 | Not Detected | 1100 | Not Detected |

J = Estimated value.

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11/2/04

**Container Type: 6 Liter Summa Canister**

# AIR TOXICS LTD.

**SAMPLE NAME: ACS CATOXEFF SEP16**

**ID#: 0409335-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

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



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409335-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.2 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | 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 | 2.8 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | 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 | 2.2 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.5 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.3 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.2 | Not Detected |
| Acetone | 2.0 | Not Detected | 4.8 | Not Detected |
| Carbon Disulfide | 2.0 | Not Detected | 6.3 | Not Detected |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 2.0 | Not Detected | 6.0 | Not Detected |
| 4-Methyl-2-pentanone | 2.0 | Not Detected | 8.3 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.3 | Not Detected |
| Bromoform | 2.0 | Not Detected | 21 | Not Detected |

**Container Type: NA - Not Applicable**

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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409335-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

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# AIR TOXICS LTD.

**SAMPLE NAME: CCV**

**ID#: 0409335-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 103 |
| Bromomethane | 101 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 99 |
| Methylene Chloride | 75 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 94 |
| Chloroform | 103 |
| 1,1,1-Trichloroethane | 101 |
| Carbon Tetrachloride | 103 |
| Benzene | 102 |
| 1,2-Dichloroethane | 101 |
| Trichloroethene | 102 |
| 1,2-Dichloropropane | 101 |
| cis-1,3-Dichloropropene | 104 |
| Toluene | 101 |
| trans-1,3-Dichloropropene | 102 |
| 1,1,2-Trichloroethane | 100 |
| Tetrachloroethene | 106 |
| Chlorobenzene | 100 |
| Ethyl Benzene | 101 |
| m,p-Xylene | 108 |
| o-Xylene | 104 |
| Styrene | 114 |
| 1,1,2,2-Tetrachloroethane | 101 |
| Bromodichloromethane | 104 |
| Dibromochloromethane | 113 |
| Chloromethane | 97 |
| Acetone | 92 |
| Carbon Disulfide | 96 |
| trans-1,2-Dichloroethene | 95 |
| 2-Butanone (Methyl Ethyl Ketone) | 102 |
| 4-Methyl-2-pentanone | 112 |
| 2-Hexanone | 112 |
| Bromoform | 116 |

**Container Type: NA - Not Applicable**



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# AIR TOXICS LTD.

**SAMPLE NAME: CCV**

**ID#: 0409335-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409335-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 97 |
| Bromomethane | 99 |
| Chloroethane | 101 |
| 1,1-Dichloroethene | 96 |
| Methylene Chloride | 68 Q |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 96 |
| Chloroform | 104 |
| 1,1,1-Trichloroethane | 102 |
| Carbon Tetrachloride | 104 |
| Benzene | 108 |
| 1,2-Dichloroethane | 107 |
| Trichloroethene | 108 |
| 1,2-Dichloropropane | 114 |
| cis-1,3-Dichloropropene | 104 |
| Toluene | 105 |
| trans-1,3-Dichloropropene | 103 |
| 1,1,2-Trichloroethane | 106 |
| Tetrachloroethene | 110 |
| Chlorobenzene | 102 |
| Ethyl Benzene | 103 |
| m,p-Xylene | 113 |
| o-Xylene | 99 |
| Styrene | 110 |
| 1,1,2,2-Tetrachloroethane | 101 |
| Bromodichloromethane | 108 |
| Dibromochloromethane | 113 |
| Chloromethane | 98 |
| Acetone | 95 |
| Carbon Disulfide | 98 |
| trans-1,2-Dichloroethene | 98 |
| 2-Butanone (Methyl Ethyl Ketone) | 126 |
| 4-Methyl-2-pentanone | 117 |
| 2-Hexanone | 118 |
| Bromoform | 115 |

Q = Exceeds Quality Control limits.

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***Container Type: NA - Not Applicable***

# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409335-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

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# AIR TOXICS LTD.

**SAMPLE NAME: LCSD**

**ID#: 0409335-04AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 101 |
| Bromomethane | 104 |
| Chloroethane | 103 |
| 1,1-Dichloroethene | 98 |
| Methylene Chloride | 70 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 97 |
| Chloroform | 105 |
| 1,1,1-Trichloroethane | 103 |
| Carbon Tetrachloride | 106 |
| Benzene | 108 |
| 1,2-Dichloroethane | 107 |
| Trichloroethene | 108 |
| 1,2-Dichloropropane | 114 |
| cis-1,3-Dichloropropene | 103 |
| Toluene | 104 |
| trans-1,3-Dichloropropene | 101 |
| 1,1,2-Trichloroethane | 104 |
| Tetrachloroethene | 108 |
| Chlorobenzene | 101 |
| Ethyl Benzene | 102 |
| m,p-Xylene | 113 |
| o-Xylene | 100 |
| Styrene | 108 |
| 1,1,2,2-Tetrachloroethane | 100 |
| Bromodichloromethane | 107 |
| Dibromochloromethane | 112 |
| Chloromethane | 102 |
| Acetone | 96 |
| Carbon Disulfide | 99 |
| trans-1,2-Dichloroethene | 100 |
| 2-Butanone (Methyl Ethyl Ketone) | 126 |
| 4-Methyl-2-pentanone | 117 |
| 2-Hexanone | 117 |
| Bromoform | 116 |

**Container Type: NA - Not Applicable**

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# AIR TOXICS LTD.

**SAMPLE NAME: LCSD**

**ID#: 0409335-04AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS CATOXEFF SEP16**

**ID#: 0409326-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 0.78 J 15 |
| 1,4-Dichlorobenzene | 1.0 | 0.65 J 15 |
| 1,2-Dichlorobenzene | 1.0 | 2.6 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 1.1 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 0.30 J 15 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS CATOXEFF SEP16**

**ID#: 0409326-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 2.3 J 15 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 72 | 50-150 |
| Phenol-d5 | 76 | 50-150 |
| Nitrobenzene-d5 | 76 | 50-150 |
| 2,4,6-Tribromophenol | 59 | 50-150 |
| Fluorene-d10 | 68 | 60-120 |
| Pyrene-d10 | 82 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409326-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 0.64 J /J |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409326-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 64 | 50-150 |
| Phenol-d5 | 71 | 50-150 |
| Nitrobenzene-d5 | 71 | 50-150 |
| 2,4,6-Tribromophenol | 62 | 50-150 |
| Fluorene-d10 | 68 | 60-120 |
| Pyrene-d10 | 87 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409326-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | %Recovery |
|---|---|
| Phenol | 71 |
| bis(2-Chloroethyl) Ether | Not Spiked |
| 2-Chlorophenol | 76 |
| 1,3-Dichlorobenzene | Not Spiked |
| 1,4-Dichlorobenzene | 76 |
| 1,2-Dichlorobenzene | Not Spiked |
| 2-Methylphenol (o-Cresol) | Not Spiked |
| N-Nitroso-di-n-propylamine | 77 |
| 4-Methylphenol/3-Methylphenol | Not Spiked |
| Hexachloroethane | Not Spiked |
| Nitrobenzene | Not Spiked |
| Isophorone | Not Spiked |
| 2-Nitrophenol | Not Spiked |
| 2,4-Dimethylphenol | Not Spiked |
| bis(2-Chloroethoxy) Methane | Not Spiked |
| 2,4-Dichlorophenol | Not Spiked |
| 1,2,4-Trichlorobenzene | 77 |
| Naphthalene | Not Spiked |
| 4-Chloroaniline | Not Spiked |
| Hexachlorobutadiene | Not Spiked |
| 4-Chloro-3-methylphenol | 76 |
| 2-Methylnaphthalene | Not Spiked |
| Hexachlorocyclopentadiene | Not Spiked |
| 2,4,6-Trichlorophenol | Not Spiked |
| 2,4,5-Trichlorophenol | Not Spiked |
| 2-Chloronaphthalene | Not Spiked |
| 2-Nitroaniline | Not Spiked |
| Dimethylphthalate | Not Spiked |
| Acenaphthylene | Not Spiked |
| 2,6-Dinitrotoluene | Not Spiked |
| 3-Nitroaniline | Not Spiked |
| Acenaphthene | 79 |
| 2,4-Dinitrophenol | Not Spiked |
| 4-Nitrophenol | 67 |
| 2,4-Dinitrotoluene | 78 |
| Dibenzofuran | Not Spiked |
| Diethylphthalate | Not Spiked |
| Fluorene | Not Spiked |
| 4-Chlorophenyl-phenyl Ether | Not Spiked |
| 4-Nitroaniline | Not Spiked |
| 4,6-Dinitro-2-methylphenol | Not Spiked |

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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409326-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | %Recovery |
|---|---|
| N-Nitrosodiphenylamine | Not Spiked |
| 4-Bromophenyl-phenyl Ether | Not Spiked |
| Hexachlorobenzene | Not Spiked |
| Pentachlorophenol | 65 |
| Phenanthrene | Not Spiked |
| Anthracene | Not Spiked |
| di-n-Butylphthalate | Not Spiked |
| Fluoranthene | Not Spiked |
| Pyrene | 84 |
| Butylbenzylphthalate | Not Spiked |
| 3,3'-Dichlorobenzidine | Not Spiked |
| Chrysene | Not Spiked |
| Benzo(a)anthracene | Not Spiked |
| bis(2-Ethylhexyl)phthalate | Not Spiked |
| Di-n-Octylphthalate | Not Spiked |
| Benzo(b)fluoranthene | Not Spiked |
| Benzo(k)fluoranthene | Not Spiked |
| Benzo(a)pyrene | Not Spiked |
| Indeno(1,2,3-c,d)pyrene | Not Spiked |
| Dibenz(a,h)anthracene | Not Spiked |
| Benzo(g,h,i)perylene | Not Spiked |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 79 | 50-150 |
| Phenol-d5 | 83 | 50-150 |
| Nitrobenzene-d5 | 86 | 50-150 |
| 2,4,6-Tribromophenol | 78 | 50-150 |
| Fluorene-d10 | 81 | 60-120 |
| Pyrene-d10 | 87 | 60-120 |

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# APPENDIX D

# THERMAL OXIDIZER OFF-GAS ANALYTICAL DATA

# July 23, 2004 Off-Gas Sample Laboratory Results

7/23/04 10-14

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23**

**ID#: 0407455A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 4000 | 1800 J /5 | 10000 | 4700 J |
| Bromomethane | 4000 | Not Detected | 16000 | Not Detected |
| Chloroethane | 4000 | Not Detected | 11000 | Not Detected |
| 1,1-Dichloroethene | 4000 | Not Detected | 16000 | Not Detected |
| Methylene Chloride | 4000 | 13000 | 14000 | 46000 |
| 1,1-Dichloroethane | 4000 | 7100 | 16000 | 29000 |
| cis-1,2-Dichloroethene | 4000 | 80000 | 16000 | 320000 |
| Chloroform | 4000 | 4600 | 20000 | 23000 |
| 1,1,1-Trichloroethane | 4000 | 94000 | 22000 | 520000 |
| Carbon Tetrachloride | 4000 | Not Detected | 26000 | Not Detected |
| Benzene | 4000 | 51000 | 13000 | 160000 |
| 1,2-Dichloroethane | 4000 | Not Detected | 16000 | Not Detected |
| Trichloroethene | 4000 | 94000 | 22000 | 510000 |
| 1,2-Dichloropropane | 4000 | Not Detected | 19000 | Not Detected |
| cis-1,3-Dichloropropene | 4000 | Not Detected | 18000 | Not Detected |
| Toluene | 4000 | 770000 | 15000 | 2900000 |
| trans-1,3-Dichloropropene | 4000 | Not Detected | 18000 | Not Detected |
| 1,1,2-Trichloroethane | 4000 | Not Detected | 22000 | Not Detected |
| Tetrachloroethene | 4000 | 220000 | 28000 | 1500000 |
| Chlorobenzene | 4000 | Not Detected | 19000 | Not Detected |
| Ethyl Benzene | 4000 | 110000 | 18000 | 500000 |
| m,p-Xylene | 4000 | 450000 | 18000 | 2000000 |
| o-Xylene | 4000 | 170000 | 18000 | 740000 |
| Styrene | 4000 | Not Detected | 17000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 4000 | Not Detected | 28000 | Not Detected |
| Bromodichloromethane | 4000 | Not Detected | 27000 | Not Detected |
| Dibromochloromethane | 4000 | Not Detected | 35000 | Not Detected |
| Chloromethane | 16000 | Not Detected | 34000 | Not Detected |
| Acetone | 16000 | Not Detected | 39000 | Not Detected |
| Carbon Disulfide | 16000 | 940 J /5 | 51000 | 3000 J |
| trans-1,2-Dichloroethene | 16000 | Not Detected | 64000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 16000 | Not Detected | 48000 | Not Detected |
| 4-Methyl-2-pentanone | 16000 | Not Detected | 67000 | Not Detected |
| 2-Hexanone | 16000 | Not Detected | 67000 | Not Detected |
| Bromoform | 16000 | Not Detected | 170000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 103 | 70-130 |



8/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23**

**ID#: 0407455A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23**

**ID#: 0407455A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1300 | 350 J /5 | 3500 | 910 J |
| Bromomethane | 1300 | Not Detected | 5300 | Not Detected |
| Chloroethane | 1300 | Not Detected | 3600 | Not Detected |
| 1,1-Dichloroethene | 1300 | Not Detected | 5400 | Not Detected |
| Methylene Chloride | 1300 | 68000 | 4700 | 240000 |
| 1,1-Dichloroethane | 1300 | 11000 | 5500 | 44000 |
| cis-1,2-Dichloroethene | 1300 | 9100 | 5400 | 36000 |
| Chloroform | 1300 | 5000 | 6600 | 24000 |
| 1,1,1-Trichloroethane | 1300 | 88000 | 7400 | 480000 |
| Carbon Tetrachloride | 1300 | Not Detected | 8600 | Not Detected |
| Benzene | 1300 | 54000 | 4400 | 180000 |
| 1,2-Dichloroethane | 1300 | 2800 | 5500 | 12000 |
| Trichloroethene | 1300 | 55000 | 7300 | 300000 |
| 1,2-Dichloropropane | 1300 | Not Detected | 6300 | Not Detected |
| cis-1,3-Dichloropropene | 1300 | Not Detected | 6200 | Not Detected |
| Toluene | 1300 | 340000 | 5100 | 1300000 |
| trans-1,3-Dichloropropene | 1300 | Not Detected | 6200 | Not Detected |
| 1,1,2-Trichloroethane | 1300 | Not Detected | 7400 | Not Detected |
| Tetrachloroethene | 1300 | 61000 | 9200 | 420000 |
| Chlorobenzene | 1300 | Not Detected | 6300 | Not Detected |
| Ethyl Benzene | 1300 | 34000 | 5900 | 150000 |
| m,p-Xylene | 1300 | 130000 | 5900 | 590000 |
| o-Xylene | 1300 | 47000 | 5900 | 210000 |
| Styrene | 1300 | Not Detected | 5800 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1300 | Not Detected | 9400 | Not Detected |
| Bromodichloromethane | 1300 | Not Detected | 9100 | Not Detected |
| Dibromochloromethane | 1300 | Not Detected | 12000 | Not Detected |
| Chloromethane | 5400 | Not Detected | 11000 | Not Detected |
| Acetone | 5400 | 48000 | 13000 | 120000 |
| Carbon Disulfide | 5400 | 1800 J /5 | 17000 | 5800 J |
| trans-1,2-Dichloroethene | 5400 | Not Detected | 22000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5400 | 37000 | 16000 | 110000 |
| 4-Methyl-2-pentanone | 5400 | 19000 | 22000 | 80000 |
| 2-Hexanone | 5400 | 780 J /5 | 22000 | 3300 J |
| Bromoform | 5400 | Not Detected | 56000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 104 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23**

**ID#: 0407455A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 JUL23**

**ID#: 0407455A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 34 | 98 | 88 | 250 |
| Bromomethane | 34 | Not Detected | 130 | Not Detected |
| Chloroethane | 34 | 30 J /5 | 91 | 81 J |
| 1,1-Dichloroethene | 34 | 470 | 140 | 1900 |
| Methylene Chloride | 34 | 650 | 120 | 2300 |
| 1,1-Dichloroethane | 34 | 140 | 140 | 570 |
| cis-1,2-Dichloroethene | 34 | 960 | 140 | 3800 |
| Chloroform | 34 | 120 | 170 | 600 |
| 1,1,1-Trichloroethane | 34 | 1100 | 190 | 6000 |
| Carbon Tetrachloride | 34 | 14 J /5 | 220 | 92 J |
| Benzene | 34 | 1300 | 110 | 4200 |
| 1,2-Dichloroethane | 34 | Not Detected | 140 | Not Detected |
| Trichloroethene | 34 | 1400 | 180 | 7900 |
| 1,2-Dichloropropane | 34 | 21 J /5 | 160 | 100 J |
| cis-1,3-Dichloropropene | 34 | Not Detected | 160 | Not Detected |
| Toluene | 34 | 9200 | 130 | 35000 |
| trans-1,3-Dichloropropene | 34 | Not Detected | 160 | Not Detected |
| 1,1,2-Trichloroethane | 34 | Not Detected | 190 | Not Detected |
| Tetrachloroethene | 34 | 3100 | 230 | 22000 |
| Chlorobenzene | 34 | 28 J /5 | 160 | 130 J |
| Ethyl Benzene | 34 | 1200 | 150 | 5500 |
| m,p-Xylene | 34 | 4900 | 150 | 22000 |
| o-Xylene | 34 | 1800 | 150 | 8000 |
| Styrene | 34 | 360 | 150 | 1500 |
| 1,1,2,2-Tetrachloroethane | 34 | Not Detected | 240 | Not Detected |
| Bromodichloromethane | 34 | Not Detected | 230 | Not Detected |
| Dibromochloromethane | 34 | 5.5 J /5 | 290 | 47 J |
| Chloromethane | 140 | 140 | 280 | 290 |
| Acetone | 140 | 480 | 330 | 1200 |
| Carbon Disulfide | 140 | 12 J /5 | 430 | 37 J |
| trans-1,2-Dichloroethene | 140 | 94 J /5 | 550 | 380 J |
| 2-Butanone (Methyl Ethyl Ketone) | 140 | 290 | 410 | 860 |
| 4-Methyl-2-pentanone | 140 | 120 J /5 | 570 | 490 J |
| 2-Hexanone | 140 | Not Detected | 570 | Not Detected |
| Bromoform | 140 | Not Detected | 1400 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 103 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 JUL23**

**ID#: 0407455A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 JUL23**

**ID#: 0407455A-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2300 | 1600 J/5 | 5900 | 4200 J |
| Bromomethane | 2300 | Not Detected | 8900 | Not Detected |
| Chloroethane | 2300 | 1700 J /5 | 6100 | 4500 J |
| 1,1-Dichloroethene | 2300 | Not Detected | 9100 | Not Detected |
| Methylene Chloride | 2300 | 30000 | 8000 | 110000 |
| 1,1-Dichloroethane | 2300 | 7400 | 9300 | 30000 |
| cis-1,2-Dichloroethene | 2300 | 43000 | 9100 | 170000 |
| Chloroform | 2300 | 3700 | 11000 | 18000 |
| 1,1,1-Trichloroethane | 2300 | 70000 | 12000 | 390000 |
| Carbon Tetrachloride | 2300 | Not Detected | 14000 | Not Detected |
| Benzene | 2300 | 42000 | 7400 | 140000 |
| 1,2-Dichloroethane | 2300 | Not Detected | 9300 | Not Detected |
| Trichloroethene | 2300 | 59000 | 12000 | 320000 |
| 1,2-Dichloropropane | 2300 | 1400 J /5 | 11000 | 6700 J |
| cis-1,3-Dichloropropene | 2300 | Not Detected | 10000 | Not Detected |
| Toluene | 2300 | 410000 | 8700 | 1600000 |
| trans-1,3-Dichloropropene | 2300 | Not Detected | 10000 | Not Detected |
| 1,1,2-Trichloroethane | 2300 | Not Detected | 12000 | Not Detected |
| Tetrachloroethene | 2300 | 100000 | 16000 | 730000 |
| Chlorobenzene | 2300 | Not Detected | 10000 | Not Detected |
| Ethyl Benzene | 2300 | 51000 | 10000 | 220000 |
| m,p-Xylene | 2300 | 200000 | 10000 | 900000 |
| o-Xylene | 2300 | 72000 | 10000 | 320000 |
| Styrene | 2300 | Not Detected | 9800 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 2300 | Not Detected | 16000 | Not Detected |
| Bromodichloromethane | 2300 | Not Detected | 15000 | Not Detected |
| Dibromochloromethane | 2300 | Not Detected | 20000 | Not Detected |
| Chloromethane | 9100 | Not Detected | 19000 | Not Detected |
| Acetone | 9100 | 24000 | 22000 | 57000 |
| Carbon Disulfide | 9100 | 4100 J /5 | 29000 | 13000 J |
| trans-1,2-Dichloroethene | 9100 | Not Detected | 36000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 9100 | 13000 | 27000 | 39000 |
| 4-Methyl-2-pentanone | 9100 | 6600 J /5 | 38000 | 28000 J |
| 2-Hexanone | 9100 | Not Detected | 38000 | Not Detected |
| Bromoform | 9100 | Not Detected | 95000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 105 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 JUL23**

**ID#: 0407455A-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 96 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 JUL23**

**ID#: 0407455A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2300 | 1700 J /5 | 6000 | 4400 J |
| Bromomethane | 2300 | Not Detected | 9100 | Not Detected |
| Chloroethane | 2300 | Not Detected | 6200 | Not Detected |
| 1,1-Dichloroethene | 2300 | Not Detected | 9300 | Not Detected |
| Methylene Chloride | 2300 | 31000 | 8200 | 110000 |
| 1,1-Dichloroethane | 2300 | 7400 | 9500 | 30000 |
| cis-1,2-Dichloroethene | 2300 | 44000 | 9300 | 180000 |
| Chloroform | 2300 | 3800 | 11000 | 19000 |
| 1,1,1-Trichloroethane | 2300 | 72000 | 13000 | 400000 |
| Carbon Tetrachloride | 2300 | Not Detected | 15000 | Not Detected |
| Benzene | 2300 | 46000 | 7500 | 150000 |
| 1,2-Dichloroethane | 2300 | Not Detected | 9500 | Not Detected |
| Trichloroethene | 2300 | 60000 | 13000 | 330000 |
| 1,2-Dichloropropane | 2300 | 1300 J /5 | 11000 | 6000 J |
| cis-1,3-Dichloropropene | 2300 | Not Detected | 11000 | Not Detected |
| Toluene | 2300 | 450000 | 8900 | 1700000 |
| trans-1,3-Dichloropropene | 2300 | Not Detected | 11000 | Not Detected |
| 1,1,2-Trichloroethane | 2300 | Not Detected | 13000 | Not Detected |
| Tetrachloroethene | 2300 | 120000 | 16000 | 800000 |
| Chlorobenzene | 2300 | Not Detected | 11000 | Not Detected |
| Ethyl Benzene | 2300 | 58000 | 10000 | 260000 |
| m,p-Xylene | 2300 | 230000 | 10000 | 1000000 |
| o-Xylene | 2300 | 84000 | 10000 | 370000 |
| Styrene | 2300 | Not Detected | 10000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 2300 | Not Detected | 16000 | Not Detected |
| Bromodichloromethane | 2300 | Not Detected | 16000 | Not Detected |
| Dibromochloromethane | 2300 | Not Detected | 20000 | Not Detected |
| Chloromethane | 9300 | Not Detected | 19000 | Not Detected |
| Acetone | 9300 | 21000 | 22000 | 51000 |
| Carbon Disulfide | 9300 | 2000 J /5 | 29000 | 6200 J |
| trans-1,2-Dichloroethene | 9300 | Not Detected | 37000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 9300 | 13000 | 28000 | 40000 |
| 4-Methyl-2-pentanone | 9300 | 7200 J /5 | 38000 | 30000 J |
| 2-Hexanone | 9300 | Not Detected | 38000 | Not Detected |
| Bromoform | 9300 | Not Detected | 97000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 JUL23**

**ID#: 0407455A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97 | 70-130 |



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7/23/04 TO-13

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23**

**ID#: 0407455B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | 120 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 88 B |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 3.2 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 32 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23**

**ID#: 0407455B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.58 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.61 J /5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 26 Q | 50-150 |
| Phenol-d5 | 96 | 50-150 |
| Nitrobenzene-d5 | 86 | 50-150 |
| 2,4,6-Tribromophenol | 79 | 50-150 |
| Fluorene-d10 | 80 | 60-120 |
| Pyrene-d10 | 82 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23 Duplicate**

**ID#: 0407455B-01AA**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | 120 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 88 B |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 3.5 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 32 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS IN1 JUL23 Duplicate**

**ID#: 0407455B-01AA**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.48 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.60 J /5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 21 Q | 50-150 |
| Phenol-d5 | 95 | 50-150 |
| Nitrobenzene-d5 | 98 | 50-150 |
| 2,4,6-Tribromophenol | 76 | 50-150 |
| Fluorene-d10 | 79 | 60-120 |
| Pyrene-d10 | 82 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23**

**ID#: 0407455B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 12 | 23 |
| bis(2-Chloroethyl) Ether | 2.5 | Not Detected |
| 2-Chlorophenol | 12 | Not Detected |
| 1,3-Dichlorobenzene | 2.5 | Not Detected |
| 1,4-Dichlorobenzene | 2.5 | 8.1 |
| 1,2-Dichlorobenzene | 2.5 | 65 |
| 2-Methylphenol (o-Cresol) | 12 | Not Detected |
| N-Nitroso-di-n-propylamine | 2.5 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 12 | 8.3 J /5 |
| Hexachloroethane | 2.5 | Not Detected |
| Nitrobenzene | 2.5 | Not Detected |
| Isophorone | 2.5 | 19 |
| 2-Nitrophenol | 12 | Not Detected |
| 2,4-Dimethylphenol | 12 | Not Detected |
| bis(2-Chloroethoxy) Methane | 2.5 | Not Detected |
| 2,4-Dichlorophenol | 12 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.5 | 1.6 J /5 |
| Naphthalene | 2.5 | 290 B |
| 4-Chloroaniline | 25 | Not Detected |
| Hexachlorobutadiene | 2.5 | 2.9 |
| 4-Chloro-3-methylphenol | 12 | Not Detected |
| 2-Methylnaphthalene | 2.5 | 11 |
| Hexachlorocyclopentadiene | 50 | Not Detected |
| 2,4,6-Trichlorophenol | 12 | Not Detected |
| 2,4,5-Trichlorophenol | 12 | Not Detected |
| 2-Chloronaphthalene | 2.5 | Not Detected |
| 2-Nitroaniline | 25 | Not Detected |
| Dimethylphthalate | 12 | Not Detected |
| Acenaphthylene | 2.5 | Not Detected |
| 2,6-Dinitrotoluene | 12 | Not Detected |
| 3-Nitroaniline | 25 | Not Detected |
| Acenaphthene | 2.5 | Not Detected |
| 2,4-Dinitrophenol | 50 | Not Detected |
| 4-Nitrophenol | 50 | Not Detected |
| 2,4-Dinitrotoluene | 12 | Not Detected |
| Dibenzofuran | 2.5 | Not Detected |
| Diethylphthalate | 12 | 2.6 J |
| Fluorene | 2.5 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 2.5 | Not Detected |
| 4-Nitroaniline | 25 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 25 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23**

**ID#: 0407455B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 25 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 2.5 | Not Detected |
| Hexachlorobenzene | 2.5 | Not Detected |
| Pentachlorophenol | 50 | Not Detected |
| Phenanthrene | 2.5 | Not Detected |
| Anthracene | 2.5 | Not Detected |
| di-n-Butylphthalate | 12 | Not Detected |
| Fluoranthene | 2.5 | Not Detected |
| Pyrene | 2.5 | Not Detected |
| Butylbenzylphthalate | 12 | Not Detected |
| 3,3'-Dichlorobenzidine | 50 | Not Detected |
| Chrysene | 2.5 | Not Detected |
| Benzo(a)anthracene | 2.5 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 12 | 33 |
| Di-n-Octylphthalate | 12 | Not Detected |
| Benzo(b)fluoranthene | 2.5 | Not Detected |
| Benzo(k)fluoranthene | 2.5 | Not Detected |
| Benzo(a)pyrene | 2.5 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 2.5 | Not Detected |
| Dibenz(a,h)anthracene | 2.5 | Not Detected |
| Benzo(g,h,i)perylene | 2.5 | Not Detected |

J = Estimated value.
B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 64 | 50-150 |
| Phenol-d5 | 90 | 50-150 |
| Nitrobenzene-d5 | 82 | 50-150 |
| 2,4,6-Tribromophenol | 60 | 50-150 |
| Fluorene-d10 | 82 | 60-120 |
| Pyrene-d10 | 88 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23 Duplicate**

**ID#: 0407455B-02AA**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | 22 |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 7.2 |
| 1,2-Dichlorobenzene | 1.0 | 58 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | 9.1 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 18 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | 1.9 J 15 |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 1.6 |
| Naphthalene | 1.0 | 240 E B 15 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 3.1 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 11 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 2.8 J |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS IN1 JUL23 Duplicate**

**ID#: 0407455B-02AA**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.61 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 42 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
E = Exceeds instrument calibration range.
B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 33 Q | 50-150 |
| Phenol-d5 | 69 | 50-150 |
| Nitrobenzene-d5 | 81 | 50-150 |
| 2,4,6-Tribromophenol | 81 | 50-150 |
| Fluorene-d10 | 79 | 60-120 |
| Pyrene-d10 | 85 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 JUL23**

**ID#: 0407455B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | 1.3 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 0.94 J B /B |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 JUL23**

**ID#: 0407455B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.58 J 15 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 1.6 J 15 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 60 | 50-150 |
| Phenol-d5 | 64 | 50-150 |
| Nitrobenzene-d5 | 56 | 50-150 |
| 2,4,6-Tribromophenol | 65 | 50-150 |
| Fluorene-d10 | 61 | 60-120 |
| Pyrene-d10 | 65 | 60-120 |



CTS
8/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 JUL23**

**ID#: 0407455B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 15 |
| 1,2-Dichlorobenzene | 1.0 | 98 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 18 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 1.3 |
| Naphthalene | 1.0 | 79 B |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 4.1 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 16 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



CPS
8/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 JUL23**

**ID#: 0407455B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.43 J 15 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 5.8 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 11 Q | 50-150 |
| Phenol-d5 | 81 | 50-150 |
| Nitrobenzene-d5 | 75 | 50-150 |
| 2,4,6-Tribromophenol | 62 | 50-150 |
| Fluorene-d10 | 66 | 60-120 |
| Pyrene-d10 | 74 | 60-120 |



CAS
8/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 JUL23**

**ID#: 0407455B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 17 |
| 1,2-Dichlorobenzene | 1.0 | 110 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | 4.2 J 15 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | 8.0 |
| Isophorone | 1.0 | 19 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 1.6 |
| Naphthalene | 1.0 | 95 B |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 4.3 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 22 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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8/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 JUL23**

**ID#: 0407455B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.78 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.64 J /5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 11 Q | 50-150 |
| Phenol-d5 | 85 | 50-150 |
| Nitrobenzene-d5 | 79 | 50-150 |
| 2,4,6-Tribromophenol | 68 | 50-150 |
| Fluorene-d10 | 73 | 60-120 |
| Pyrene-d10 | 76 | 60-120 |



CAS
8/13/04

# August 12, 2004 Off-Gas Sample Laboratory Results

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 AUG12**

**ID#: 0408281A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 4500 | 3000 J /5 | 12000 | 7700 J |
| Bromomethane | 4500 | Not Detected | 18000 | Not Detected |
| Chloroethane | 4500 | Not Detected | 12000 | Not Detected |
| 1,1-Dichloroethene | 4500 | 2200 J /5 | 18000 | 8700 J |
| Methylene Chloride | 4500 | 20000 | 16000 | 69000 |
| 1,1-Dichloroethane | 4500 | 8500 | 19000 | 35000 |
| cis-1,2-Dichloroethene | 4500 | 88000 | 18000 | 360000 |
| Chloroform | 4500 | 5300 | 22000 | 26000 |
| 1,1,1-Trichloroethane | 4500 | 100000 | 25000 | 590000 |
| Carbon Tetrachloride | 4500 | Not Detected | 29000 | Not Detected |
| Benzene | 4500 | 48000 | 15000 | 160000 |
| 1,2-Dichloroethane | 4500 | Not Detected | 19000 | Not Detected |
| Trichloroethene | 4500 | 98000 | 25000 | 540000 |
| 1,2-Dichloropropane | 4500 | 2300 J /5 | 21000 | 11000 J |
| cis-1,3-Dichloropropene | 4500 | Not Detected | 21000 | Not Detected |
| Toluene | 4500 | 800000 | 17000 | 3100000 |
| trans-1,3-Dichloropropene | 4500 | Not Detected | 21000 | Not Detected |
| 1,1,2-Trichloroethane | 4500 | Not Detected | 25000 | Not Detected |
| Tetrachloroethene | 4500 | 250000 | 31000 | 1800000 |
| Chlorobenzene | 4500 | Not Detected | 21000 | Not Detected |
| Ethyl Benzene | 4500 | 120000 | 20000 | 510000 |
| m,p-Xylene | 4500 | 550000 | 20000 | 2400000 |
| o-Xylene | 4500 | 190000 | 20000 | 830000 |
| Styrene | 4500 | Not Detected | 20000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 4500 | Not Detected | 32000 | Not Detected |
| Bromodichloromethane | 4500 | Not Detected | 31000 | Not Detected |
| Dibromochloromethane | 4500 | Not Detected | 39000 | Not Detected |
| Chloromethane | 18000 | Not Detected | 38000 | Not Detected |
| Acetone | 18000 | 8200 J /5 | 44000 | 20000 J |
| Carbon Disulfide | 18000 | 2200 J /5 | 57000 | 7100 J |
| trans-1,2-Dichloroethene | 18000 | Not Detected | 73000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 18000 | 2500 J /5 | 54000 | 7400 J |
| 4-Methyl-2-pentanone | 18000 | 2300 J /5 | 76000 | 9600 J |
| 2-Hexanone | 18000 | Not Detected | 76000 | Not Detected |
| Bromoform | 18000 | Not Detected | 190000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 107 | 70-130 |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 AUG12**

**ID#: 0408281A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 70-130 |

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9/13/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 AUG12**

**ID#: 0408281A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| | | | | |
|---|---|---|---|---|
| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
| Vinyl Chloride | 1400 | 1400 | 3600 | 3600 |
| Bromomethane | 1400 | Not Detected | 5500 | Not Detected |
| Chloroethane | 1400 | Not Detected | 3700 | Not Detected |
| 1,1-Dichloroethene | 1400 | 2100 | 5600 | 8600 |
| Methylene Chloride | 1400 | 180000 | 4900 | 650000 |
| 1,1-Dichloroethane | 1400 | 23000 | 5700 | 96000 |
| cis-1,2-Dichloroethene | 1400 | 18000 | 5600 | 71000 |
| Chloroform | 1400 | 10000 | 6900 | 51000 |
| 1,1,1-Trichloroethane | 1400 | 160000 | 7700 | 900000 |
| Carbon Tetrachloride | 1400 | Not Detected | 8900 | Not Detected |
| Benzene | 1400 | 83000 | 4500 | 270000 |
| 1,2-Dichloroethane | 1400 | 4700 | 5700 | 19000 |
| Trichloroethene | 1400 | 88000 | 7600 | 480000 |
| 1,2-Dichloropropane | 1400 | 1200 J /5 | 6500 | 5900 J |
| cis-1,3-Dichloropropene | 1400 | Not Detected | 6400 | Not Detected |
| Toluene | 1400 | 540000 | 5300 | 2000000 |
| trans-1,3-Dichloropropene | 1400 | Not Detected | 6400 | Not Detected |
| 1,1,2-Trichloroethane | 1400 | 900 J /5 | 7700 | 5000 J |
| Tetrachloroethene | 1400 | 100000 | 9600 | 710000 |
| Chlorobenzene | 1400 | Not Detected | 6500 | Not Detected |
| Ethyl Benzene | 1400 | 59000 | 6100 | 260000 |
| m,p-Xylene | 1400 | 260000 | 6100 | 1100000 |
| o-Xylene | 1400 | 90000 | 6100 | 400000 |
| Styrene | 1400 | Not Detected | 6000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1400 | Not Detected | 9700 | Not Detected |
| Bromodichloromethane | 1400 | Not Detected | 9500 | Not Detected |
| Dibromochloromethane | 1400 | Not Detected | 12000 | Not Detected |
| Chloromethane | 5600 | Not Detected | 12000 | Not Detected |
| Acetone | 5600 | 66000 | 13000 | 160000 |
| Carbon Disulfide | 5600 | Not Detected | 18000 | Not Detected |
| trans-1,2-Dichloroethene | 5600 | Not Detected | 22000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5600 | 51000 | 17000 | 150000 |
| 4-Methyl-2-pentanone | 5600 | 21000 | 23000 | 88000 |
| 2-Hexanone | 5600 | 900 J /5 | 23000 | 3800 J |
| Bromoform | 5600 | Not Detected | 58000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| *Surrogates* | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 103 | 70-130 |



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4/4/07

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 AUG12**

**ID#: 0408281A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 103 | 70-130 |

CRS
9/8/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 AUG12**

**ID#: 0408281A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2900 | 3800 | 7500 | 9800 |
| Bromomethane | 2900 | Not Detected | 11000 | Not Detected |
| Chloroethane | 2900 | Not Detected | 7700 | Not Detected |
| 1,1-Dichloroethene | 2900 | 2000 J /5 | 12000 | 7900 J |
| Methylene Chloride | 2900 | 64000 | 10000 | 230000 |
| 1,1-Dichloroethane | 2900 | 12000 | 12000 | 50000 |
| cis-1,2-Dichloroethene | 2900 | 53000 | 12000 | 210000 |
| Chloroform | 2900 | 5400 | 14000 | 26000 |
| 1,1,1-Trichloroethane | 2900 | 92000 | 16000 | 510000 |
| Carbon Tetrachloride | 2900 | Not Detected | 18000 | Not Detected |
| Benzene | 2900 | 48000 | 9400 | 160000 |
| 1,2-Dichloroethane | 2900 | 1900 J /5 | 12000 | 7700 J |
| Trichloroethene | 2900 | 65000 | 16000 | 360000 |
| 1,2-Dichloropropane | 2900 | 1500 J /5 | 14000 | 6900 J |
| cis-1,3-Dichloropropene | 2900 | Not Detected | 13000 | Not Detected |
| Toluene | 2900 | 490000 | 11000 | 1900000 |
| trans-1,3-Dichloropropene | 2900 | Not Detected | 13000 | Not Detected |
| 1,1,2-Trichloroethane | 2900 | Not Detected | 16000 | Not Detected |
| Tetrachloroethene | 2900 | 140000 | 20000 | 930000 |
| Chlorobenzene | 2900 | Not Detected | 13000 | Not Detected |
| Ethyl Benzene | 2900 | 66000 | 13000 | 290000 |
| m,p-Xylene | 2900 | 290000 | 13000 | 1300000 |
| o-Xylene | 2900 | 95000 | 13000 | 420000 |
| Styrene | 2900 | Not Detected | 12000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 2900 | Not Detected | 20000 | Not Detected |
| Bromodichloromethane | 2900 | Not Detected | 20000 | Not Detected |
| Dibromochloromethane | 2900 | Not Detected | 25000 | Not Detected |
| Chloromethane | 12000 | Not Detected | 24000 | Not Detected |
| Acetone | 12000 | 26000 | 28000 | 64000 |
| Carbon Disulfide | 12000 | 2200 J /5 | 36000 | 7100 J |
| trans-1,2-Dichloroethene | 12000 | Not Detected | 46000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 12000 | 14000 | 34000 | 42000 |
| 4-Methyl-2-pentanone | 12000 | 7500 J /5 | 48000 | 31000 J |
| 2-Hexanone | 12000 | Not Detected | 48000 | Not Detected |
| Bromoform | 12000 | Not Detected | 120000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 104 | 70-130 |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 AUG12**

**ID#: 0408281A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99 | 70-130 |



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9/4/01

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 AUG12**

***ID#: 0408281A-04A***

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2800 | 3600 | 7300 | 9500 |
| Bromomethane | 2800 | Not Detected | 11000 | Not Detected |
| Chloroethane | 2800 | Not Detected | 7600 | Not Detected |
| 1,1-Dichloroethene | 2800 | 2000 J /5 | 11000 | 8100 J |
| Methylene Chloride | 2800 | 68000 | 10000 | 240000 |
| 1,1-Dichloroethane | 2800 | 13000 | 12000 | 53000 |
| cis-1,2-Dichloroethene | 2800 | 58000 | 11000 | 230000 |
| Chloroform | 2800 | 5500 | 14000 | 27000 |
| 1,1,1-Trichloroethane | 2800 | 100000 | 16000 | 550000 |
| Carbon Tetrachloride | 2800 | Not Detected | 18000 | Not Detected |
| Benzene | 2800 | 51000 | 9200 | 170000 |
| 1,2-Dichloroethane | 2800 | 2100 J /5 | 12000 | 8500 J |
| Trichloroethene | 2800 | 73000 | 15000 | 400000 |
| 1,2-Dichloropropane | 2800 | 1600 J /5 | 13000 | 7400 J |
| cis-1,3-Dichloropropene | 2800 | Not Detected | 13000 | Not Detected |
| Toluene | 2800 | 520000 | 11000 | 2000000 |
| trans-1,3-Dichloropropene | 2800 | Not Detected | 13000 | Not Detected |
| 1,1,2-Trichloroethane | 2800 | Not Detected | 16000 | Not Detected |
| Tetrachloroethene | 2800 | 140000 | 19000 | 1000000 |
| Chlorobenzene | 2800 | Not Detected | 13000 | Not Detected |
| Ethyl Benzene | 2800 | 70000 | 12000 | 310000 |
| m,p-Xylene | 2800 | 320000 | 12000 | 1400000 |
| o-Xylene | 2800 | 110000 | 12000 | 500000 |
| Styrene | 2800 | Not Detected | 12000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 2800 | Not Detected | 20000 | Not Detected |
| Bromodichloromethane | 2800 | Not Detected | 19000 | Not Detected |
| Dibromochloromethane | 2800 | Not Detected | 24000 | Not Detected |
| Chloromethane | 11000 | Not Detected | 24000 | Not Detected |
| Acetone | 11000 | 29000 | 27000 | 70000 |
| Carbon Disulfide | 11000 | 2500 J /5 | 36000 | 8000 J |
| trans-1,2-Dichloroethene | 11000 | Not Detected | 45000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 11000 | 16000 | 34000 | 49000 |
| 4-Methyl-2-pentanone | 11000 | 9200 J /5 | 47000 | 38000 J |
| 2-Hexanone | 11000 | Not Detected | 47000 | Not Detected |
| Bromoform | 11000 | Not Detected | 120000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 105 | 70-130 |



CKS 9/5/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 AUG12**

**ID#: 0408281A-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 98 | 70-130 |



CTS
4/8/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 AUG12**

**ID#: 0408281A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| [illegible] | [illegible] | [illegible] |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 28 | 160 | 72 | 400 |
| Bromomethane | 28 | Not Detected | 110 | Not Detected |
| Chloroethane | 28 | Not Detected | 74 | Not Detected |
| 1,1-Dichloroethene | 28 | 560 | 110 | 2300 |
| Methylene Chloride | 28 | 1200 | 98 | 4400 |
| 1,1-Dichloroethane | 28 | 200 | 110 | 820 |
| cis-1,2-Dichloroethene | 28 | 910 | 110 | 3600 |
| Chloroform | 28 | 150 | 140 | 760 |
| 1,1,1-Trichloroethane | 28 | 1300 | 150 | 7300 |
| Carbon Tetrachloride | 28 | 18 J /5 | 180 | 110 J |
| Benzene | 28 | 1400 | 90 | 4400 |
| 1,2-Dichloroethane | 28 | 44 | 110 | 180 |
| Trichloroethene | 28 | 1400 | 150 | 7600 |
| 1,2-Dichloropropane | 28 | 22 J /5 | 130 | 100 J |
| cis-1,3-Dichloropropene | 28 | Not Detected | 130 | Not Detected |
| Toluene | 28 | 8200 | 110 | 32000 |
| trans-1,3-Dichloropropene | 28 | Not Detected | 130 | Not Detected |
| 1,1,2-Trichloroethane | 28 | Not Detected | 150 | Not Detected |
| Tetrachloroethene | 28 | 2900 | 190 | 20000 |
| Chlorobenzene | 28 | 21 J /5 | 130 | 100 J |
| Ethyl Benzene | 28 | 1100 | 120 | 4900 |
| m,p-Xylene | 28 | 4600 | 120 | 20000 |
| o-Xylene | 28 | 1600 | 120 | 7000 |
| Styrene | 28 | 270 | 120 | 1200 |
| 1,1,2,2-Tetrachloroethane | 28 | Not Detected | 190 | Not Detected |
| Bromodichloromethane | 28 | 13 J /5 | 190 | 87 J |
| Dibromochloromethane | 28 | Not Detected | 240 | Not Detected |
| Chloromethane | 110 | 160 | 230 | 340 |
| Acetone | 110 | 610 | 270 | 1500 |
| Carbon Disulfide | 110 | Not Detected | 350 | Not Detected |
| trans-1,2-Dichloroethene | 110 | 96 J /5 | 450 | 390 J |
| 2-Butanone (Methyl Ethyl Ketone) | 110 | 360 | 330 | 1100 |
| 4-Methyl-2-pentanone | 110 | 140 | 460 | 580 |
| 2-Hexanone | 110 | 12 J /5 | 460 | 51 J |
| Bromoform | 110 | Not Detected | 1200 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 103 | 70-130 |



CPS
9/8/14

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 AUG12**

**ID#: 0408281A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 4-Bromofluorobenzene | 103 | 70-130 |

CBS
4/5/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 AUG12**

**ID#: 0408281B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 24 |
| 1,2-Dichlorobenzene | 1.0 | 120 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 0.61 J /5 |
| Naphthalene | 1.0 | 90 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 3.3 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 34 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

CBS
4/5/09

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 AUG12**

**ID#: 0408281B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 2.4 J 1.5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 21 Q | 50-150 |
| Phenol-d5 | 95 | 50-150 |
| Nitrobenzene-d5 | 100 | 50-150 |
| 2,4,6-Tribromophenol | 64 | 50-150 |
| Fluorene-d10 | 77 | 60-120 |
| Pyrene-d10 | 83 | 60-120 |



CRS
9/5/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 AUG12**

**ID#: 0408281B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 17 |
| 1,2-Dichlorobenzene | 1.0 | 120 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 30 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 3.1 |
| Naphthalene | 1.0 | 96 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 7.8 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 18 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



CRS
9/8/11

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 AUG12**

**ID#: 0408281B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.34 J 15 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 15 Q | 50-150 |
| Phenol-d5 | 96 | 50-150 |
| Nitrobenzene-d5 | 105 | 50-150 |
| 2,4,6-Tribromophenol | 64 | 50-150 |
| Fluorene-d10 | 82 | 60-120 |
| Pyrene-d10 | 88 | 60-120 |



CVS
4/5/14

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 AUG12**

**ID#: 0408281B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 20 |
| 1,2-Dichlorobenzene | 1.0 | 120 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 16 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 2.1 |
| Naphthalene | 1.0 | 100 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 6.0 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 24 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 AUG12**

**ID#: 0408281B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.43 J |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.67 J |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 13 Q | 50-150 |
| Phenol-d5 | 95 | 50-150 |
| Nitrobenzene-d5 | 101 | 50-150 |
| 2,4,6-Tribromophenol | 50 | 50-150 |
| Fluorene-d10 | 79 | 60-120 |
| Pyrene-d10 | 87 | 60-120 |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 AUG12**

**ID#: 0408281B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 18 |
| 1,2-Dichlorobenzene | 1.0 | 110 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 15 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 2.0 |
| Naphthalene | 1.0 | 100 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 5.4 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 25 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 AUG12**

**ID#: 0408281B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.31 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 3.8 J /5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 13 Q | 50-150 |
| Phenol-d5 | 95 | 50-150 |
| Nitrobenzene-d5 | 105 | 50-150 |
| 2,4,6-Tribromophenol | 62 | 50-150 |
| Fluorene-d10 | 82 | 60-120 |
| Pyrene-d10 | 86 | 60-120 |



CBG
9/5/01

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 AUG12**

**ID#: 0408281B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | 0.86 J |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 0.44 J |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 AUG12**

**ID#: 0408281B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 61 | 50-150 |
| Phenol-d5 | 62 | 50-150 |
| Nitrobenzene-d5 | 65 | 50-150 |
| 2,4,6-Tribromophenol | 42 Q | 50-150 |
| Fluorene-d10 | 63 | 60-120 |
| Pyrene-d10 | 68 | 60-120 |

# September 27, 2004 Off-Gas Sample Laboratory Results

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONSI IN1 SEP27**

**ID#: 0409519A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3400 | Not Detected | 8700 | Not Detected |
| Bromomethane | 3400 | Not Detected | 13000 | Not Detected |
| Chloroethane | 3400 | Not Detected | 9000 | Not Detected |
| 1,1-Dichloroethene | 3400 | 1200 J /5 | 13000 | 4700 J |
| Methylene Chloride | 3400 | 11000 | 12000 | 39000 |
| 1,1-Dichloroethane | 3400 | 4300 | 14000 | 18000 |
| cis-1,2-Dichloroethene | 3400 | 60000 | 13000 | 240000 |
| Chloroform | 3400 | 4000 | 17000 | 20000 |
| 1,1,1-Trichloroethane | 3400 | 58000 | 18000 | 320000 |
| Carbon Tetrachloride | 3400 | Not Detected | 21000 | Not Detected |
| Benzene | 3400 | 33000 | 11000 | 110000 |
| 1,2-Dichloroethane | 3400 | 750 J /5 | 14000 | 3100 J |
| Trichloroethene | 3400 | 59000 | 18000 | 320000 |
| 1,2-Dichloropropane | 3400 | Not Detected | 16000 | Not Detected |
| cis-1,3-Dichloropropene | 3400 | Not Detected | 15000 | Not Detected |
| Toluene | 3400 | 650000 | 13000 | 2500000 |
| trans-1,3-Dichloropropene | 3400 | Not Detected | 15000 | Not Detected |
| 1,1,2-Trichloroethane | 3400 | Not Detected | 18000 | Not Detected |
| Tetrachloroethene | 3400 | 220000 | 23000 | 1500000 |
| Chlorobenzene | 3400 | Not Detected | 16000 | Not Detected |
| Ethyl Benzene | 3400 | 120000 | 15000 | 510000 |
| m,p-Xylene | 3400 | 550000 | 15000 | 2400000 |
| o-Xylene | 3400 | 210000 | 15000 | 920000 |
| Styrene | 3400 | Not Detected | 14000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 3400 | Not Detected | 23000 | Not Detected |
| Bromodichloromethane | 3400 | Not Detected | 23000 | Not Detected |
| Dibromochloromethane | 3400 | Not Detected | 29000 | Not Detected |
| Chloromethane | 14000 | Not Detected | 28000 | Not Detected |
| Acetone | 14000 | 7200 J /5 | 32000 | 17000 J |
| Carbon Disulfide | 14000 | 1400 J /5 | 42000 | 4600 J |
| trans-1,2-Dichloroethene | 14000 | Not Detected | 54000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 14000 | 2200 J /5 | 40000 | 6500 J |
| 4-Methyl-2-pentanone | 14000 | 3700 J /5 | 56000 | 15000 J |
| 2-Hexanone | 14000 | Not Detected | 56000 | Not Detected |
| Bromoform | 14000 | Not Detected | 140000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONSI IN1 SEP27**

**ID#: 0409519A-01A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFSI IN1 SEP27**

**ID#: 0409519A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1300 | Not Detected | 3400 | Not Detected |
| Bromomethane | 1300 | Not Detected | 5200 | Not Detected |
| Chloroethane | 1300 | Not Detected | 3500 | Not Detected |
| 1,1-Dichloroethene | 1300 | 2200 | 5300 | 8800 |
| Methylene Chloride | 1300 | 88000 | 4600 | 310000 |
| 1,1-Dichloroethane | 1300 | 10000 | 5400 | 42000 |
| cis-1,2-Dichloroethene | 1300 | 7400 | 5300 | 30000 |
| Chloroform | 1300 | 4400 | 6500 | 22000 |
| 1,1,1-Trichloroethane | 1300 | 74000 | 7300 | 410000 |
| Carbon Tetrachloride | 1300 | Not Detected | 8400 | Not Detected |
| Benzene | 1300 | 47000 | 4300 | 150000 |
| 1,2-Dichloroethane | 1300 | 2800 | 5400 | 12000 |
| Trichloroethene | 1300 | 49000 | 7200 | 270000 |
| 1,2-Dichloropropane | 1300 | 940 J /5 | 6200 | 4400 J |
| cis-1,3-Dichloropropene | 1300 | Not Detected | 6100 | Not Detected |
| Toluene | 1300 | 340000 | 5000 | 1300000 |
| trans-1,3-Dichloropropene | 1300 | Not Detected | 6100 | Not Detected |
| 1,1,2-Trichloroethane | 1300 | 540 J /5 | 7300 | 3000 J |
| Tetrachloroethene | 1300 | 71000 | 9100 | 490000 |
| Chlorobenzene | 1300 | Not Detected | 6200 | Not Detected |
| Ethyl Benzene | 1300 | 43000 | 5800 | 190000 |
| m,p-Xylene | 1300 | 180000 | 5800 | 800000 |
| o-Xylene | 1300 | 66000 | 5800 | 290000 |
| Styrene | 1300 | 3300 | 5700 | 14000 |
| 1,1,2,2-Tetrachloroethane | 1300 | Not Detected | 9200 | Not Detected |
| Bromodichloromethane | 1300 | Not Detected | 9000 | Not Detected |
| Dibromochloromethane | 1300 | Not Detected | 11000 | Not Detected |
| Chloromethane | 5400 | Not Detected | 11000 | Not Detected |
| Acetone | 5400 | 46000 | 13000 | 110000 |
| Carbon Disulfide | 5400 | Not Detected | 17000 | Not Detected |
| trans-1,2-Dichloroethene | 5400 | Not Detected | 21000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5400 | 26000 | 16000 | 77000 |
| 4-Methyl-2-pentanone | 5400 | 14000 | 22000 | 60000 |
| 2-Hexanone | 5400 | Not Detected | 22000 | Not Detected |
| Bromoform | 5400 | Not Detected | 55000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFSI IN1 SEP27**

**ID#: 0409519A-02A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

[redacted]

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 95 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 SEP27**

**ID#: 0409519A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1400 | 1200 J /5 | 3600 | 3200 J |
| Bromomethane | 1400 | Not Detected | 5400 | Not Detected |
| Chloroethane | 1400 | Not Detected | 3700 | Not Detected |
| 1,1-Dichloroethene | 1400 | 1100 J /5 | 5500 | 4500 J |
| Methylene Chloride | 1400 | 38000 | 4800 | 130000 |
| 1,1-Dichloroethane | 1400 | 6200 | 5600 | 26000 |
| cis-1,2-Dichloroethene | 1400 | 35000 | 5500 | 140000 |
| Chloroform | 1400 | 3700 | 6800 | 18000 |
| 1,1,1-Trichloroethane | 1400 | 58000 | 7600 | 320000 |
| Carbon Tetrachloride | 1400 | Not Detected | 8700 | Not Detected |
| Benzene | 1400 | 34000 | 4400 | 110000 |
| 1,2-Dichloroethane | 1400 | 1400 | 5600 | 6000 |
| Trichloroethene | 1400 | 50000 | 7500 | 280000 |
| 1,2-Dichloropropane | 1400 | 1100 J /5 | 6400 | 5000 J |
| cis-1,3-Dichloropropene | 1400 | Not Detected | 6300 | Not Detected |
| Toluene | 1400 | 500000 | 5200 | 1900000 |
| trans-1,3-Dichloropropene | 1400 | Not Detected | 6300 | Not Detected |
| 1,1,2-Trichloroethane | 1400 | Not Detected | 7600 | Not Detected |
| Tetrachloroethene | 1400 | 140000 | 9400 | 1000000 |
| Chlorobenzene | 1400 | Not Detected | 6400 | Not Detected |
| Ethyl Benzene | 1400 | 82000 | 6000 | 360000 |
| m,p-Xylene | 1400 | 390000 | 6000 | 1700000 |
| o-Xylene | 1400 | 150000 | 6000 | 670000 |
| Styrene | 1400 | Not Detected | 5900 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1400 | Not Detected | 9500 | Not Detected |
| Bromodichloromethane | 1400 | Not Detected | 9300 | Not Detected |
| Dibromochloromethane | 1400 | Not Detected | 12000 | Not Detected |
| Chloromethane | 5600 | Not Detected | 11000 | Not Detected |
| Acetone | 5600 | 17000 | 13000 | 42000 |
| Carbon Disulfide | 5600 | Not Detected | 17000 | Not Detected |
| trans-1,2-Dichloroethene | 5600 | Not Detected | 22000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5600 | 10000 | 16000 | 30000 |
| 4-Methyl-2-pentanone | 5600 | 7500 | 23000 | 31000 |
| 2-Hexanone | 5600 | Not Detected | 23000 | Not Detected |
| Bromoform | 5600 | Not Detected | 57000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 SEP27**

**ID#: 0409519A-03A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

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



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 SEP27**

**ID#: 0409519A-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1400 | 1400 | 3600 | 3600 |
| Bromomethane | 1400 | Not Detected | 5500 | Not Detected |
| Chloroethane | 1400 | Not Detected | 3700 | Not Detected |
| 1,1-Dichloroethene | 1400 | 1200 J 15 | 5600 | 4700 J |
| Methylene Chloride | 1400 | 40000 | 4900 | 140000 |
| 1,1-Dichloroethane | 1400 | 6500 | 5700 | 27000 |
| cis-1,2-Dichloroethene | 1400 | 37000 | 5600 | 150000 |
| Chloroform | 1400 | 3800 | 6900 | 19000 |
| 1,1,1-Trichloroethane | 1400 | 63000 | 7700 | 350000 |
| Carbon Tetrachloride | 1400 | Not Detected | 8900 | Not Detected |
| Benzene | 1400 | 38000 | 4500 | 120000 |
| 1,2-Dichloroethane | 1400 | 1600 | 5700 | 6800 |
| Trichloroethene | 1400 | 56000 | 7600 | 300000 |
| 1,2-Dichloropropane | 1400 | Not Detected | 6500 | Not Detected |
| cis-1,3-Dichloropropene | 1400 | Not Detected | 6400 | Not Detected |
| Toluene | 1400 | 550000 | 5300 | 2100000 |
| trans-1,3-Dichloropropene | 1400 | Not Detected | 6400 | Not Detected |
| 1,1,2-Trichloroethane | 1400 | Not Detected | 7700 | Not Detected |
| Tetrachloroethene | 1400 | 160000 | 9600 | 1100000 |
| Chlorobenzene | 1400 | Not Detected | 6500 | Not Detected |
| Ethyl Benzene | 1400 | 93000 | 6100 | 410000 |
| m,p-Xylene | 1400 | 440000 | 6100 | 2000000 |
| o-Xylene | 1400 | 170000 | 6100 | 760000 |
| Styrene | 1400 | Not Detected | 6000 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1400 | Not Detected | 9700 | Not Detected |
| Bromodichloromethane | 1400 | Not Detected | 9400 | Not Detected |
| Dibromochloromethane | 1400 | Not Detected | 12000 | Not Detected |
| Chloromethane | 5600 | Not Detected | 12000 | Not Detected |
| Acetone | 5600 | 18000 | 13000 | 45000 |
| Carbon Disulfide | 5600 | Not Detected | 18000 | Not Detected |
| trans-1,2-Dichloroethene | 5600 | Not Detected | 22000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5600 | 10000 | 17000 | 31000 |
| 4-Methyl-2-pentanone | 5600 | 8500 | 23000 | 36000 |
| 2-Hexanone | 5600 | Not Detected | 23000 | Not Detected |
| Bromoform | 5600 | Not Detected | 58000 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 SEP27**

**ID#: 0409519A-04A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

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

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27**

**ID#: 0409519A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.9 | 8.7 | 9.9 | 22 |
| Bromomethane | 3.9 | Not Detected | 15 | Not Detected |
| Chloroethane | 3.9 | Not Detected | 10 | Not Detected |
| 1,1-Dichloroethene | 3.9 | 4.0 | 15 | 16 |
| Methylene Chloride | 3.9 | 70 | 13 | 250 |
| 1,1-Dichloroethane | 3.9 | 13 | 16 | 53 |
| cis-1,2-Dichloroethene | 3.9 | 80 | 15 | 320 |
| Chloroform | 3.9 | 7.2 | 19 | 36 |
| 1,1,1-Trichloroethane | 3.9 | 110 | 21 | 600 |
| Carbon Tetrachloride | 3.9 | Not Detected | 24 | Not Detected |
| Benzene | 3.9 | 92 | 12 | 300 |
| 1,2-Dichloroethane | 3.9 | 3.0 J 15 | 16 | 12 J |
| Trichloroethene | 3.9 | 100 | 21 | 560 |
| 1,2-Dichloropropane | 3.9 | 2.2 J 15 | 18 | 10 J |
| cis-1,3-Dichloropropene | 3.9 | Not Detected | 18 | Not Detected |
| Toluene | 3.9 | 1000 | 15 | 3800 |
| trans-1,3-Dichloropropene | 3.9 | Not Detected | 18 | Not Detected |
| 1,1,2-Trichloroethane | 3.9 | Not Detected | 21 | Not Detected |
| Tetrachloroethene | 3.9 | 320 | 26 | 2200 |
| Chlorobenzene | 3.9 | Not Detected | 18 | Not Detected |
| Ethyl Benzene | 3.9 | 200 | 17 | 880 |
| m,p-Xylene | 3.9 | 1000 | 17 | 4400 |
| o-Xylene | 3.9 | 420 | 17 | 1800 |
| Styrene | 3.9 | Not Detected | 16 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 3.9 | Not Detected | 27 | Not Detected |
| Bromodichloromethane | 3.9 | Not Detected | 26 | Not Detected |
| Dibromochloromethane | 3.9 | Not Detected | 33 | Not Detected |
| Chloromethane | 16 | 3.4 J 15 | 32 | 7.2 J |
| Acetone | 16 | 190 | 37 | 460 |
| Carbon Disulfide | 16 | Not Detected | 48 | Not Detected |
| trans-1,2-Dichloroethene | 16 | Not Detected | 62 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 16 | 52 | 46 | 160 |
| 4-Methyl-2-pentanone | 16 | 20 | 64 | 82 |
| 2-Hexanone | 16 | Not Detected | 64 | Not Detected |
| Bromoform | 16 | Not Detected | 160 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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11/2/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27**

**ID#: 0409519A-05A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27 Duplicate**

**ID#: 0409519A-05AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.9 | 8.0 | 9.9 | 21 |
| Bromomethane | 3.9 | Not Detected | 15 | Not Detected |
| Chloroethane | 3.9 | Not Detected | 10 | Not Detected |
| 1,1-Dichloroethene | 3.9 | 4.2 | 15 | 17 |
| Methylene Chloride | 3.9 | 69 | 13 | 240 |
| 1,1-Dichloroethane | 3.9 | 12 | 16 | 50 |
| cis-1,2-Dichloroethene | 3.9 | 79 | 15 | 320 |
| Chloroform | 3.9 | 7.1 | 19 | 35 |
| 1,1,1-Trichloroethane | 3.9 | 110 | 21 | 600 |
| Carbon Tetrachloride | 3.9 | Not Detected | 24 | Not Detected |
| Benzene | 3.9 | 92 | 12 | 300 |
| 1,2-Dichloroethane | 3.9 | 2.9 J 15 | 16 | 12 J |
| Trichloroethene | 3.9 | 100 | 21 | 550 |
| 1,2-Dichloropropane | 3.9 | 2.1 J 15 | 18 | 9.9 J |
| cis-1,3-Dichloropropene | 3.9 | Not Detected | 18 | Not Detected |
| Toluene | 3.9 | 980 | 15 | 3800 |
| trans-1,3-Dichloropropene | 3.9 | Not Detected | 18 | Not Detected |
| 1,1,2-Trichloroethane | 3.9 | Not Detected | 21 | Not Detected |
| Tetrachloroethene | 3.9 | 320 | 26 | 2200 |
| Chlorobenzene | 3.9 | Not Detected | 18 | Not Detected |
| Ethyl Benzene | 3.9 | 200 | 17 | 890 |
| m,p-Xylene | 3.9 | 990 | 17 | 4400 |
| o-Xylene | 3.9 | 410 | 17 | 1800 |
| Styrene | 3.9 | Not Detected | 16 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 3.9 | Not Detected | 27 | Not Detected |
| Bromodichloromethane | 3.9 | Not Detected | 26 | Not Detected |
| Dibromochloromethane | 3.9 | Not Detected | 33 | Not Detected |
| Chloromethane | 16 | 3.9 J 15 | 32 | 8.1 J |
| Acetone | 16 | 190 | 37 | 460 |
| Carbon Disulfide | 16 | Not Detected | 48 | Not Detected |
| trans-1,2-Dichloroethene | 16 | Not Detected | 62 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 16 | 53 | 46 | 160 |
| 4-Methyl-2-pentanone | 16 | 20 | 64 | 85 |
| 2-Hexanone | 16 | Not Detected | 64 | Not Detected |
| Bromoform | 16 | Not Detected | 160 | Not Detected |

J = Estimated value.

**Container Type: 6 Liter Summa Canister**

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27 Duplicate**

**ID#: 0409519A-05AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409519A-06A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.1 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | 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 |
| 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 |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.2 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.1 | Not Detected |
| Acetone | 2.0 | 0.31 J /5 | 4.8 | 0.75 J |
| Carbon Disulfide | 2.0 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 7.9 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 2.0 | Not Detected | 5.9 | Not Detected |
| 4-Methyl-2-pentanone | 2.0 | Not Detected | 8.2 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.2 | Not Detected |
| Bromoform | 2.0 | Not Detected | 21 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409519A-06A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

J = Estimated value.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |



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# AIR TOXICS LTD.

**SAMPLE NAME: CCV**

**ID#: 0409519A-07A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 86 |
| Bromomethane | 96 |
| Chloroethane | 83 |
| 1,1-Dichloroethene | 85 |
| Methylene Chloride | 98 |
| 1,1-Dichloroethane | 87 |
| cis-1,2-Dichloroethene | 86 |
| Chloroform | 83 |
| 1,1,1-Trichloroethane | 85 |
| Carbon Tetrachloride | 93 |
| Benzene | 78 |
| 1,2-Dichloroethane | 86 |
| Trichloroethene | 83 |
| 1,2-Dichloropropane | 85 |
| cis-1,3-Dichloropropene | 88 |
| Toluene | 84 |
| trans-1,3-Dichloropropene | 89 |
| 1,1,2-Trichloroethane | 82 |
| Tetrachloroethene | 86 |
| Chlorobenzene | 84 |
| Ethyl Benzene | 85 |
| m,p-Xylene | 81 |
| o-Xylene | 84 |
| Styrene | 87 |
| 1,1,2,2-Tetrachloroethane | 84 |
| Bromodichloromethane | 90 |
| Dibromochloromethane | 93 |
| Chloromethane | 100 |
| Acetone | 95 |
| Carbon Disulfide | 86 |
| trans-1,2-Dichloroethene | 83 |
| 2-Butanone (Methyl Ethyl Ketone) | 87 |
| 4-Methyl-2-pentanone | 91 |
| 2-Hexanone | 95 |
| Bromoform | 95 |

**Container Type: NA - Not Applicable**



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# AIR TOXICS LTD.

**SAMPLE NAME: CCV**

**ID#: 0409519A-07A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

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

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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409519A-08A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 80 |
| Bromomethane | 90 |
| Chloroethane | 82 |
| 1,1-Dichloroethene | 84 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 96 |
| cis-1,2-Dichloroethene | 74 |
| Chloroform | 87 |
| 1,1,1-Trichloroethane | 94 |
| Carbon Tetrachloride | 101 |
| Benzene | 84 |
| 1,2-Dichloroethane | 100 |
| Trichloroethene | 91 |
| 1,2-Dichloropropane | 105 |
| cis-1,3-Dichloropropene | 99 |
| Toluene | 82 |
| trans-1,3-Dichloropropene | 105 |
| 1,1,2-Trichloroethane | 85 |
| Tetrachloroethene | 86 |
| Chlorobenzene | 84 |
| Ethyl Benzene | 81 |
| m,p-Xylene | 80 |
| o-Xylene | 82 |
| Styrene | 95 |
| 1,1,2,2-Tetrachloroethane | 88 |
| Bromodichloromethane | 102 |
| Dibromochloromethane | 104 |
| Chloromethane | 83 |
| Acetone | 105 |
| Carbon Disulfide | 93 |
| trans-1,2-Dichloroethene | 88 |
| 2-Butanone (Methyl Ethyl Ketone) | 98 |
| 4-Methyl-2-pentanone | 108 |
| 2-Hexanone | 112 |
| Bromoform | 96 |

**Container Type: NA - Not Applicable**



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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409519A-08A**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

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

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# AIR TOXICS LTD.

**SAMPLE NAME: LCSD**

**ID#: 0409519A-08AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 78 |
| Bromomethane | 86 |
| Chloroethane | 80 |
| 1,1-Dichloroethene | 83 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 95 |
| cis-1,2-Dichloroethene | 74 |
| Chloroform | 87 |
| 1,1,1-Trichloroethane | 94 |
| Carbon Tetrachloride | 101 |
| Benzene | 84 |
| 1,2-Dichloroethane | 99 |
| Trichloroethene | 91 |
| 1,2-Dichloropropane | 103 |
| cis-1,3-Dichloropropene | 98 |
| Toluene | 81 |
| trans-1,3-Dichloropropene | 105 |
| 1,1,2-Trichloroethane | 85 |
| Tetrachloroethene | 85 |
| Chlorobenzene | 84 |
| Ethyl Benzene | 80 |
| m,p-Xylene | 80 |
| o-Xylene | 83 |
| Styrene | 95 |
| 1,1,2,2-Tetrachloroethane | 88 |
| Bromodichloromethane | 101 |
| Dibromochloromethane | 104 |
| Chloromethane | 82 |
| Acetone | 105 |
| Carbon Disulfide | 91 |
| trans-1,2-Dichloroethene | 88 |
| 2-Butanone (Methyl Ethyl Ketone) | 96 |
| 4-Methyl-2-pentanone | 106 |
| 2-Hexanone | 114 |
| Bromoform | 96 |

**Container Type: NA - Not Applicable**

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# AIR TOXICS LTD.

**SAMPLE NAME: LCSD**

**ID#: 0409519A-08AA**

**MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN**

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

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 SEP27**

**ID#: 0409519B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 6.6 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.3 | Not Detected |
| 2-Chlorophenol | 6.6 | Not Detected |
| 1,3-Dichlorobenzene | 1.3 | 12 |
| 1,4-Dichlorobenzene | 1.3 | 26 |
| 1,2-Dichlorobenzene | 1.3 | 160 |
| 2-Methylphenol (o-Cresol) | 6.6 | 1.2 J 15 |
| N-Nitroso-di-n-propylamine | 1.3 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 6.6 | 3.5 J 15 |
| Hexachloroethane | 1.3 | Not Detected |
| Nitrobenzene | 1.3 | Not Detected |
| Isophorone | 1.3 | 8.0 |
| 2-Nitrophenol | 6.6 | Not Detected |
| 2,4-Dimethylphenol | 6.6 | 3.8 J 15 |
| bis(2-Chloroethoxy) Methane | 1.3 | Not Detected |
| 2,4-Dichlorophenol | 6.6 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.3 | 1.5 |
| Naphthalene | 1.3 | 160 |
| 4-Chloroaniline | 13 | Not Detected |
| Hexachlorobutadiene | 1.3 | 7.2 |
| 4-Chloro-3-methylphenol | 6.6 | Not Detected |
| 2-Methylnaphthalene | 1.3 | 58 |
| Hexachlorocyclopentadiene | 27 | Not Detected |
| 2,4,6-Trichlorophenol | 6.6 | Not Detected |
| 2,4,5-Trichlorophenol | 6.6 | Not Detected |
| 2-Chloronaphthalene | 1.3 | Not Detected |
| 2-Nitroaniline | 13 | Not Detected |
| Dimethylphthalate | 6.6 | Not Detected |
| Acenaphthylene | 1.3 | Not Detected |
| 2,6-Dinitrotoluene | 6.6 | Not Detected |
| 3-Nitroaniline | 13 | Not Detected |
| Acenaphthene | 1.3 | Not Detected |
| 2,4-Dinitrophenol | 27 | Not Detected |
| 4-Nitrophenol | 27 | Not Detected |
| 2,4-Dinitrotoluene | 6.6 | Not Detected |
| Dibenzofuran | 1.3 | Not Detected |
| Diethylphthalate | 6.6 | Not Detected |
| Fluorene | 1.3 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.3 | Not Detected |
| 4-Nitroaniline | 13 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 13 | Not Detected |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 ONS1 IN1 SEP27**

**ID#: 0409519B-01A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 13 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.3 | Not Detected |
| Hexachlorobenzene | 1.3 | Not Detected |
| Pentachlorophenol | 27 | Not Detected |
| Phenanthrene | 1.3 | Not Detected |
| Anthracene | 1.3 | Not Detected |
| di-n-Butylphthalate | 6.6 | 0.64 J /B |
| Fluoranthene | 1.3 | Not Detected |
| Pyrene | 1.3 | Not Detected |
| Butylbenzylphthalate | 6.6 | Not Detected |
| 3,3'-Dichlorobenzidine | 27 | Not Detected |
| Chrysene | 1.3 | Not Detected |
| Benzo(a)anthracene | 1.3 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 6.6 | 3.0 J /5 |
| Di-n-Octylphthalate | 6.6 | Not Detected |
| Benzo(b)fluoranthene | 1.3 | Not Detected |
| Benzo(k)fluoranthene | 1.3 | Not Detected |
| Benzo(a)pyrene | 1.3 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.3 | Not Detected |
| Dibenz(a,h)anthracene | 1.3 | Not Detected |
| Benzo(g,h,i)perylene | 1.3 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 32 Q | 50-150 |
| Phenol-d5 | 84 | 50-150 |
| Nitrobenzene-d5 | 110 | 50-150 |
| 2,4,6-Tribromophenol | 89 | 50-150 |
| Fluorene-d10 | 103 | 60-120 |
| Pyrene-d10 | 112 | 60-120 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 SEP27**

**ID#: 0409519B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 3.4 |
| 1,4-Dichlorobenzene | 1.0 | 11 |
| 1,2-Dichlorobenzene | 1.0 | 92 |
| 2-Methylphenol (o-Cresol) | 5.0 | 2.8 J 15 |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | 6.4 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 28 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | 5.2 |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 2.7 |
| Naphthalene | 1.0 | 75 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 5.7 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 16 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 0.34 J 15 |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 OFS1 IN1 SEP27**

**ID#: 0409519B-02A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.77 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | 0.47 J /J |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 2.0 J /J |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 24 Q | 50-150 |
| Phenol-d5 | 85 | 50-150 |
| Nitrobenzene-d5 | 100 | 50-150 |
| 2,4,6-Tribromophenol | 95 | 50-150 |
| Fluorene-d10 | 96 | 60-120 |
| Pyrene-d10 | 106 | 60-120 |

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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 SEP27**

**ID#: 0409519B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 8.6 |
| 1,4-Dichlorobenzene | 1.0 | 23 |
| 1 2-Dichlorobenzene | 1.0 | 150 |
| 2-Methylphenol (o-Cresol) | 5.0 | 3.4 J /5 |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | 6.6 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 25 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | 5.1 |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 2.6 |
| Naphthalene | 1.0 | 150 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 9.1 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 43 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | 0.20 J /5 |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 0.32 J /5 |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN1 SEP27**

**ID#: 0409519B-03A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.79 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | 0.72 J /5 |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 2.8 J /5 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 23 Q | 50-150 |
| Phenol-d5 | 86 | 50-150 |
| Nitrobenzene-d5 | 99 | 50-150 |
| 2,4,6-Tribromophenol | 98 | 50-150 |
| Fluorene-d10 | 100 | 60-120 |
| Pyrene-d10 | 105 | 60-120 |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 SEP27**

**ID#: 0409519B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 6.6 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.3 | Not Detected |
| 2-Chlorophenol | 6.6 | Not Detected |
| 1,3-Dichlorobenzene | 1.3 | 9.3 |
| 1,4-Dichlorobenzene | 1.3 | 23 |
| 1,2-Dichlorobenzene | 1.3 | 160 |
| 2-Methylphenol (o-Cresol) | 6.6 | 3.4 J /5 |
| N-Nitroso-di-n-propylamine | 1.3 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 6.6 | 7.4 |
| Hexachloroethane | 1.3 | Not Detected |
| Nitrobenzene | 1.3 | Not Detected |
| Isophorone | 1.3 | 28 |
| 2-Nitrophenol | 6.6 | Not Detected |
| 2,4-Dimethylphenol | 6.6 | 5.0 J /5 |
| bis(2-Chloroethoxy) Methane | 1.3 | Not Detected |
| 2,4-Dichlorophenol | 6.6 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.3 | 3.0 |
| Naphthalene | 1.3 | 170 |
| 4-Chloroaniline | 13 | Not Detected |
| Hexachlorobutadiene | 1.3 | 9.6 |
| 4-Chloro-3-methylphenol | 6.6 | Not Detected |
| 2-Methylnaphthalene | 1.3 | 47 |
| Hexachlorocyclopentadiene | 27 | Not Detected |
| 2,4,6-Trichlorophenol | 6.6 | Not Detected |
| 2,4,5-Trichlorophenol | 6.6 | Not Detected |
| 2-Chloronaphthalene | 1.3 | Not Detected |
| 2-Nitroaniline | 13 | Not Detected |
| Dimethylphthalate | 6.6 | Not Detected |
| Acenaphthylene | 1.3 | Not Detected |
| 2,6-Dinitrotoluene | 6.6 | Not Detected |
| 3-Nitroaniline | 13 | Not Detected |
| Acenaphthene | 1.3 | Not Detected |
| 2,4-Dinitrophenol | 27 | Not Detected |
| 4-Nitrophenol | 27 | Not Detected |
| 2,4-Dinitrotoluene | 6.6 | Not Detected |
| Dibenzofuran | 1.3 | Not Detected |
| Diethylphthalate | 6.6 | Not Detected |
| Fluorene | 1.3 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.3 | Not Detected |
| 4-Nitroaniline | 13 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 13 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 IN2 SEP27**

**ID#: 0409519B-04A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 13 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.3 | Not Detected |
| Hexachlorobenzene | 1.3 | Not Detected |
| Pentachlorophenol | 27 | Not Detected |
| Phenanthrene | 1.3 | Not Detected |
| Anthracene | 1.3 | Not Detected |
| di-n-Butylphthalate | 6.6 | 0.59 J /13 |
| Fluoranthene | 1.3 | Not Detected |
| Pyrene | 1.3 | Not Detected |
| Butylbenzylphthalate | 6.6 | Not Detected |
| 3,3'-Dichlorobenzidine | 27 | Not Detected |
| Chrysene | 1.3 | Not Detected |
| Benzo(a)anthracene | 1.3 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 6.6 | 3.2 J /5 |
| Di-n-Octylphthalate | 6.6 | Not Detected |
| Benzo(b)fluoranthene | 1.3 | Not Detected |
| Benzo(k)fluoranthene | 1.3 | Not Detected |
| Benzo(a)pyrene | 1.3 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.3 | Not Detected |
| Dibenz(a,h)anthracene | 1.3 | Not Detected |
| Benzo(g,h,i)perylene | 1.3 | Not Detected |

J = Estimated value.
Q = Exceeds Quality Control limits.
**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 23 Q | 50-150 |
| Phenol-d5 | 88 | 50-150 |
| Nitrobenzene-d5 | 109 | 50-150 |
| 2,4,6-Tribromophenol | 92 | 50-150 |
| Fluorene-d10 | 103 | 60-120 |
| Pyrene-d10 | 118 | 60-120 |



CAS
11/2/04

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27**

**ID#: 0409519B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 0.23 J |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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11/2/01

# AIR TOXICS LTD.

**SAMPLE NAME: ACS TO2 EFF1 SEP27**

**ID#: 0409519B-05A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.43 J 1B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | 0.16 J 1S |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.76 J 1S |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

**Container Type: XAD Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 86 | 50-150 |
| Phenol-d5 | 88 | 50-150 |
| Nitrobenzene-d5 | 84 | 50-150 |
| 2,4,6-Tribromophenol | 75 | 50-150 |
| Fluorene-d10 | 84 | 60-120 |
| Pyrene-d10 | 95 | 60-120 |



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409519B-06A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol/3-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |



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# AIR TOXICS LTD.

**SAMPLE NAME: Lab Blank**

**ID#: 0409519B-06A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | Rpt. Limit (ug) | Amount (ug) |
|---|---|---|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.47 J /5 |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 80 | 50-150 |
| Phenol-d5 | 84 | 50-150 |
| Nitrobenzene-d5 | 75 | 50-150 |
| 2,4,6-Tribromophenol | 72 | 50-150 |
| Fluorene-d10 | 78 | 60-120 |
| Pyrene-d10 | 83 | 60-120 |



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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409519B-07A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | %Recovery |
|---|---|
| Phenol | 83 |
| bis(2-Chloroethyl) Ether | Not Spiked |
| 2-Chlorophenol | 81 |
| 1,3-Dichlorobenzene | Not Spiked |
| 1,4-Dichlorobenzene | 77 |
| 1,2-Dichlorobenzene | Not Spiked |
| 2-Methylphenol (o-Cresol) | Not Spiked |
| N-Nitroso-di-n-propylamine | 81 |
| 4-Methylphenol/3-Methylphenol | Not Spiked |
| Hexachloroethane | Not Spiked |
| Nitrobenzene | Not Spiked |
| Isophorone | Not Spiked |
| 2-Nitrophenol | Not Spiked |
| 2,4-Dimethylphenol | Not Spiked |
| bis(2-Chloroethoxy) Methane | Not Spiked |
| 2,4-Dichlorophenol | Not Spiked |
| 1,2,4-Trichlorobenzene | 85 |
| Naphthalene | Not Spiked |
| 4-Chloroaniline | Not Spiked |
| Hexachlorobutadiene | Not Spiked |
| 4-Chloro-3-methylphenol | 83 |
| 2-Methylnaphthalene | Not Spiked |
| Hexachlorocyclopentadiene | Not Spiked |
| 2,4,6-Trichlorophenol | Not Spiked |
| 2,4,5-Trichlorophenol | Not Spiked |
| 2-Chloronaphthalene | Not Spiked |
| 2-Nitroaniline | Not Spiked |
| Dimethylphthalate | Not Spiked |
| Acenaphthylene | Not Spiked |
| 2,6-Dinitrotoluene | Not Spiked |
| 3-Nitroaniline | Not Spiked |
| Acenaphthene | 82 |
| 2,4-Dinitrophenol | Not Spiked |
| 4-Nitrophenol | 75 |
| 2,4-Dinitrotoluene | 84 |
| Dibenzofuran | Not Spiked |
| Diethylphthalate | Not Spiked |
| Fluorene | Not Spiked |
| 4-Chlorophenyl-phenyl Ether | Not Spiked |
| 4-Nitroaniline | Not Spiked |
| 4,6-Dinitro-2-methylphenol | Not Spiked |



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# AIR TOXICS LTD.

**SAMPLE NAME: LCS**

**ID#: 0409519B-07A**

**MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN**

[redacted]

| Compound | %Recovery |
|---|---|
| N-Nitrosodiphenylamine | Not Spiked |
| 4-Bromophenyl-phenyl Ether | Not Spiked |
| Hexachlorobenzene | Not Spiked |
| Pentachlorophenol | 80 |
| Phenanthrene | Not Spiked |
| Anthracene | Not Spiked |
| di-n-Butylphthalate | Not Spiked |
| Fluoranthene | Not Spiked |
| Pyrene | 86 |
| Butylbenzylphthalate | Not Spiked |
| 3,3'-Dichlorobenzidine | Not Spiked |
| Chrysene | Not Spiked |
| Benzo(a)anthracene | Not Spiked |
| bis(2-Ethylhexyl)phthalate | Not Spiked |
| Di-n-Octylphthalate | Not Spiked |
| Benzo(b)fluoranthene | Not Spiked |
| Benzo(k)fluoranthene | Not Spiked |
| Benzo(a)pyrene | Not Spiked |
| Indeno(1,2,3-c,d)pyrene | Not Spiked |
| Dibenz(a,h)anthracene | Not Spiked |
| Benzo(g,h,i)perylene | Not Spiked |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 2-Fluorophenol | 85 | 50-150 |
| Phenol-d5 | 85 | 50-150 |
| Nitrobenzene-d5 | 93 | 50-150 |
| 2,4,6-Tribromophenol | 84 | 50-150 |
| Fluorene-d10 | 90 | 60-120 |
| Pyrene-d10 | 91 | 60-120 |



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