Potential Sources of Chlorinated VOCs Investigation

AECOM

# Twelve Sites in St. Louis Park

Submitted to:

**MN Pollution Control Agency**

520 Lafayette Road North
St. Paul, MN 55155-4194

Submitted by:

**AECOM Environment**

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June 30, 2009

Mr. David Moore
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

RE: Investigation of the Potential Sources of Chlorinated VOCs, St. Louis Park, Minnesota
AECOM Project 04660-024

Dear Mr. Moore:

AECOM completed soil, soil gas and groundwater sampling at twelve sites located in St. Louis Park, Minnesota (see Figures 1 through 13). The purpose of the study was to investigate if these sites may have contributed to chlorinated VOC groundwater contamination present in aquifers within the City of St. Louis Park. Shallow groundwater contamination was documented to have caused vapor intrusion problems in residential areas of the City. Contaminants that have reached the Prairie du Chien – Jordan aquifer impacted several of the municipal water supply wells in the area. The project scope of work was outlined in STS Proposal 200802882 that was submitted to the MPCA on October 21, 2008. The work was authorized by Work Order SFST0906 issued by MPCA on October 30, 2008.

The results identified the presence of soil, soil gas and groundwater contamination at several of the investigated sites.

If you have any questions regarding the contents of this report, or if we can be of further assistance to you, please do not hesitate to contact us at 763-852-4200.

Sincerely,

Peter A. Rzepecki, PhD, PHg, PG
Senior Project Scientist

for

Robert L. DeGroot, PG, PE
Principal Engineer

PAR/dn
Encs.

# Contents

**1.0 Introduction ..... 1**

1.1 Project Background ..... 1

1.2 Project Goal ..... 1

1.3 Scope of Work ..... 1

**2.0 Field Work, Sampling Methods ..... 4**

2.1 Three Phases of Environmental Probing / Drilling at the Sites ..... 4

2.2 Soil Sampling ..... 4

2.3 Soil Gas Sampling ..... 4

2.4 Temporary Monitoring Well Sampling ..... 5

2.5 Quality Control / Quality Assurance ..... 5

**3.0 Investigation Results ..... 6**

3.1 Soil Boring Logs, Local Geology ..... 6

3.2 Laboratory Analysis Results ..... 6

**4.0 Discussion ..... 8**

**5.0 Recommendations ..... 9**

**6.0 General Qualifications ..... 10**

**7.0 References ..... 11**

# Figures

# Tables

# List of Appendices

Appendix A - Pace Laboratory Report
Appendix B - Minnesota Department of Health Laboratory Report
Appendix C – Boring Logs
Appendix D – Soil Gas Probe Sampling Summary
Appendix E– Sampling Information Forms
Appendix F – Probing/Borehole Locations, Waypoints (Superfund and Emergency Response Section – Spatial Data Reporting Spreadsheets)
Appendix G – Sampling and Analysis Plan

# 1.0 Introduction

## 1.1 Project Background

Detection of contamination in Edina City Well No. 7 (ED-7) triggered a multistage environmental investigation conducted by STS (now AECOM) on behalf of MPCA, beginning in 2004 (STS: March 3, 2005; May 27, 2005; June 30, 2005; March 13, 2006; June 30, 2006a; June 30, 2007a; June 30, 2007b; AECOM, June 30, 2009). This investigation traced patterns of groundwater contamination and possible sources of the identified contamination. Sampling of a dense network of monitoring wells (installed to monitor the Reilly Tar Site related polynuclear aromatic hydrocarbon (PAH) plume) allowed documentation of large plumes present in Drift, Platteville (OPVL), St. Peter (OSTP) and Prairie du Chien – Jordan (OPCJ) aquifer systems. The centers of these plumes are east of Louisiana Avenue on both sides of Highway 7 within St. Louis Park. Shallow groundwater VOC contamination (water table Drift aquifer) affected residential areas within St. Louis Park via groundwater off-gassing and soil gas migration into basements of buildings located down-gradient of the sources. The OPCJ plume occupies roughly a three-mile in diameter area, extending to northern portions of Edina and eastern fringes of Hopkins, affecting some of the municipal water supply wells.

Efforts to inventory the potential sources of VOC groundwater contamination present in the area are documented in several environmental reports available at MPCA. Review of the Hennepin County Hazardous Waste Generators Database and interviews with business owners revealed the presence of many potential sources of VOC contamination. Review of the records for 82 sites located around W437 (a heavily contaminated Platteville well in St. Louis Park) revealed that 29 facilities in that area used perchloroethylene (PCE, PERC), trichloloethylene (TCE), dichloroethylene (DCE) or vinyl chloride and another 19 may have used them (STS, March 13, 2006).

A Phase I Environmental Site Assessment conducted for the St. Louis Park area around W437 included review of aerial photographs, contacts with the City of St. Louis Park staff, review of city directories, Sanborn Fire Insurance Maps and MPCA file reviews of identified environmental release sites. This study revealed the presence of several additional potential sources of VOC contamination like machine shops and manufacturers (STS, June 30, 2005).

Soil gas surveys were conducted by STS to verify the possibility that the presence of shallow groundwater VOC contamination may be impacting the vadose zone (unsaturated soil above the water table) and indoor air quality in the residential neighborhoods adjacent to the industrial areas. The results of these surveys indicated that residents could be exposed to contamination through that pathway (STS, February 16, 2007 and September 19, 2007).

This report documents the results of a screening investigation of twelve properties selected as potential sources of VOC contamination.

## 1.2 Project Goal

The stated goal of this investigation was to identify the sources of chlorinated VOCs in several locations near Highway 7 and Wooddale Avenue, in St. Louis Park. The collected data are to be used by MPCA to evaluate risks to human health or the environment from soil gas contamination and to plan further investigative work.

## 1.3 Scope of Work

Originally, thirteen sites were proposed for investigation (STS Proposal 200802882 submitted to MPCA on October 21, 2008). However, due to difficulties in obtaining access agreements, two of these sites originally

recommended for investigation, Presswrite Printing (3384 Brownlow Ave.) and Audio by Design (6516 Walker St.), were dropped from the list and replaced by The Family Digest (7008 Walker St.). The twelve investigated sites are listed below:

| Site No. | Site | Hennepin County Property Info Search | | |
|---|---|---|---|---|
| | | Business Name or Owners | Address | Zip |
| 1 | Tall Sales Co. | CPE Exchange 25246 LLC | 6714 Walker St. and adjacent buildings | 55426 |
| 2 | Eclipse Electric Manufacturing | Eclipse Electric Mfg. Co. | 6512 Walker St. | 55426 |
| 3 | MinValco Inc. | MinValco Inc. | 3340 Gorham Ave. | 55426 |
| 4 | Lighting Plastics of Minnesota | David J Kohn Trustee | 3326 Gorham Ave. | 55426 |
| 5 | The Family Digest | The Family Digest | 7008 Walker St. | 55426 |
| 6 | Pampered Pooch | Wayne R Benson | 7020 Walker St. | 55426 |
| 7 | Keith J. Kaufenberg | Private Residency | 6225 37th Street West | 55426 |
| 8 | Ace Supply Company, Inc. | Hasselbring Family Ltd. Ptshp | 3825 Edgewood Ave. S. | 55426 |
| 9 | Care Cleaners | D G Paul & M A Paul Trustees | 6528 W Lake St. | 55426 |
| 10 | Techno Graphics | Thomas & Catherine Dunn | 6500 Lake St. W. | 55426 |
| 11 | Bryant Graphics | Walker Street LLLP | 6504 Walker St. | 55426 |
| 12 | Professional Instruments | Professional Instruments | 6824 Lake Street West | 55426 |

Locations of these sites are presented on Figure 1.

The sites were tested by applying direct-push technology with the use of a dual tube sampling tool. The use of the dual tube sampling was dictated by difficulties encountered during the probes completed at the beginning of the project. The work required continuous sampling. It was difficult to keep the probing hole open in the dry sands and gravels encountered almost exclusively in the borings (see boring logs provided in Appendix C) using the standard method of direct-push probing. One exception was completion of a 54 ft. boring at Mr. Keith J. Kaufenberg's property to obtain a groundwater sample. That boring was conducted using the hollow stem auger technique.

The tests included collection of three types of samples: soil samples, vadose zone soil gas samples and groundwater samples collected from the first encountered, shallow groundwater, if the water table was encountered at a depth of 50 feet, or at shallower depth, below ground surface. One groundwater sample was collected from a depth of 53 ft. at Mr. Keith J. Kaufenberg's property.

The direct push probing and rotary drilling work was performed by Stevens Drilling & Environmental (SDE), a State Contractor subcontracted for this project. Field monitoring and the sample collection work was performed by the AECOM field personnel. The probing/drilling and sampling work was initiated at each site after access agreements were signed and utility clearances were obtained.

The sampling locations are presented on Figures 2 – 13 and the summary of the collected samples is presented in Table 1. In total, the samples were collected from the following number of locations and ranges of depths:

| Sample Type | Number of Sites | Number of Locations | Range of Sample Depths |
|---|---|---|---|
| Soil Samples | 12 | 35 | 3 to 50 ft. |
| Soil Gas Samples | 12 | 35 | 8 to 10 ft. |
| Groundwater Samples | 12 | 28 | 28 to 53 ft. |

The collected soil samples were tested by Pace Analytical using EPA Method 8260 MSV 5035 Low Level. The collected soil gas samples were also tested by Pace Analytical using TO-15 Method MSV AIR. The collected groundwater samples were tested by the Minnesota Department of Health Environmental Laboratory using EPA Method 8260.

# 2.0 Field Work, Sampling Methods

## 2.1 Three Phases of Environmental Probing/Drilling at the Sites

Environmental probing/drilling and sampling work was conducted in three phases:

- Phase I - March 2 through March 6
- Phase II - March 30 through April 2
- Phase III - May 5 through May 8

The dates each site was investigated are provided in Table 1. The order in which the twelve sites were investigated was primarily dictated by the receipt of signed access agreements between the property owners and MPCA.

## 2.2 Soil Sampling

A Macrocore® sampler was advanced at each probe location to collect continuous soil samples and determine the depth of the shallow groundwater. Soil samples were screened with a photoionization detector (PID) equipped with an 11.7 eV lamp and calibrated daily to 100 parts per million (ppm) isobutylene calibration gas. The soil samples were screened in general accordance with the MPCA polyethylene bag headspace screening procedure as outlined in the Soil Sample Collection and Analysis Procedures - Guidance Document 4-04 (MPCA, Petroleum Remediation Program, September 2008). Soil samples for low level VOC analysis were collected from soils with elevated (greater than 10) PID units or from soils with obvious visual and/or olfactory indications of contamination. If no elevated PID readings or visual/olfactory evidence of contamination is observed, one soil sample was collected per probing location for VOC analysis. The collected soil samples were delivered to Pace Analytical laboratory for low-level VOC analysis using the EPA Method 8260 MSV 5035. The depths of the collected samples are listed in column 8 of Table 1.

The only samples that generated elevated PID reading were collected at Eclipse Electric from soil boring B2 at a depth range 0 to 6 ft. below ground surface. PID readings in this boring (B2) ranged from 10 to 90 PID units. PID readings at all other soil borings were below background readings of 1 PID unit.

## 2.3 Soil Gas Sampling

A soil gas probe was advanced at each probe location to a depth of 8 feet below ground surface in a separate hole in the direct vicinity of the soil/groundwater sampling probe locations. Landtech GEM 500 gas meter was used to extract (purge) approximately three volumes of void space/sampling tube prior to sampling to draw soil gas from the surrounding soil into the sampling tube. A 5-gallon Summa canister for Method TO-15 gas sampling was attached to the sample tubing. A vacuum gauge was attached to the Summa canister during the first sampling to determine the length of time required to obtain the sample. Based on the vacuum gauge readings, approximately 2 minutes was required for the canister vacuum to equilibrate to atmospheric pressure (zero). The multi-gas monitor was used to measure volumetric content of subsurface gas constituents including oxygen, carbon dioxide and methane ($CH_4$) during borehole purging. Such monitoring is useful in interpreting sampling results, evaluating subsurface air flux and determining when the purging process is complete. The results of this in-field monitoring are presented in Appendix D.

The Summa canisters with the collected samples were delivered under chain of custody to Pace Laboratory for VOC analysis. VOCs included in the test are specified by the Minnesota Soil Gas List. These VOCs were analyzed using method TO-15 Method MSV AIR.

## 2.4 Temporary Monitoring Well Sampling

While advancing a probe/borehole, groundwater was allowed to equilibrate upon encountering the water table and, after equilibration, the probe was advanced a minimum of 5 feet beneath the water level.

A peristaltic pump, with dedicated polyethylene tubing lowered to the water table, was used to lift groundwater for collection of samples. After a minimal purging (to avoid the borehole from going dry), a groundwater sample for analysis was obtained by clipping the upper end of the tubing (to prevent draining of water from the tubing), removing it from the well and draining the water from the bottom end of the tubing to fill the 40 mL sample vials. At the Kaufenberg site (6225 - 37th St. W.), a groundwater sample was obtained from the borehole (drilled with hollow steam auger technique) using a bailer.

All the soil borings and probes advanced at all investigated sites were backfilled with bentonite grout in general conformance with the Minnesota Department of Health regulations (Minnesota Rules 4725) upon completing collection of soil, soil gas and groundwater samples.

## 2.5 Quality Control/Quality Assurance

AECOM developed a Sampling and Analysis Plan (SAP) that outlines and describes all the elements of the field procedures that were used and followed to collect soil, soil gas and groundwater samples at all the investigated sites. The SAP (provided in Appendix G) was developed following the contents of Section F of the “Vapor Intrusion Assessments Performed during Site Investigations Guidance Document 4-01a” (Minnesota Pollution Control Agency, Petroleum Remediation Program, September 2008). One deviation from the SAP specified Sampling Design was the use of a drilling rig (using hollow stem auger drilling technique) to complete the 62 feet deep boring at the Kaufenberg site, as mandated by Change Order No. 1 signed by the MPCA on April 28, 2009. The other variation was the use of a bailer to collect a groundwater sample from that deep boring at the Kaufenberg site.

# 3.0 Investigation Results

## 3.1 Soil Boring Logs, Local Geology

"Geologic Atlas of Hennepin County" (Minnesota Geological Survey, 1989) represents the surficial geology of the investigated area as outwash – sand, loamy sand and gravel overlain by loess less than 4 feet thick (Plate 3 – Surficial Geology, G.N. Meyer and H.C. Hobbs). Plate 7 of that Atlas designates this area as having groundwater highly to very highly susceptible to pollution (Plate 7 – Sensitivity of Ground-Water System to Pollution, J. Piegat).

As documented on boring logs (provided in Appendix C), the dominating soil type encountered while direct-push-probing and drilling was fine to coarse sand (SP) with trace gravel and, occasionally, gravel layers. In some probes, a surficial layer of clay was encountered (at Eclipse Electric, 6512 Walker – B1 and Tal Sales, 6714 Walker – B3). At 6225 - 37th (W1), clay was encountered at 52 to 55 ft. below ground surface. The groundwater table was encountered at depths ranging from 23.6 ft. (at Pampered Pooch, 7020 Walker – W2) to 53 ft. (at Kaufenberg, 6225 - 37th – W1).

## 3.2 Laboratory Analysis Results

The results of laboratory analyses are presented in Tables 2, 3 and 4 and in Appendices A and B.

Soil Samples
Inspection of Table 2 reveals that out of the sixty-eight VOCs tested for (EPA Method 8260 MSV 5035), in total only four VOCs were detected in at least one sample. PCE and Xylene were detected in soil samples collected at Eclipse Electric (6512 Walker St.) in B-2 (see Figures 1 and 3). PCE was measured to be present in B-2 soil samples at a concentration three orders of magnitude above the Tier 1 Soil Leaching Value (SLV). SLV is a Minnesota soil contamination screening standard aimed at protecting groundwater from soil contamination (http://www.pca.state.mn.us/cleanup/riskbasedoc.html). PCE was also detected to be present in soil samples collected at Bryant Graphics (6504 Walker St., next to Eclipse Electric) in B-1(see Figures 1 and 12) and at Professional Instruments (6824 Lake St.) in B-1 and B-2 (see Figures 1 and 13). 1,2,4-Trimethylbenzene was detected at Lighting Plastics (3326 Gorham Ave.) in B-3 (see Figures 1 and 5).

Soil Gas Samples
Inspection of Table 3 reveals that out of the sixty VOCs tested for (on the list of TO-15 Method), in total forty-two different VOCs were detected in at least one sample. Multiple VOCs were detected in soil gas samples at all twelve investigated sites. The measured concentrations of some of the VOCs exceed 10 times (10x) Intrusion Screening Values (either industrial or residential or both) at nine (out of twelve) investigated sites. Intrusion Screening Values (ISVs) were developed by MPCA for vapor intrusion risk evaluation (http://www.pca.state.mn.us/publications/aq1-36.xls).

The soil gas contaminants of primary concern are Tetrachloroethene (PCE) and Trichloroethene (TCE). These chemicals were found at concentrations above 10 x ISV at nine sites. Methylene chloride and 1,3-Butadiene are the other two gas contaminants that were found at concentrations above 10 x ISV but only at two sites. The sites with the highest VOC concentrations in soil vapor were Eclipse Electric (6512 Walker St – see Figures 1 and 3) and Care Cleaners (6528 Lake St. W. – see Figures 1 and 10). PCE concentration detected in sample VP-2 (Eclipse Electric) is three orders of magnitude above the 10 x ISV for that chemical.

Groundwater Samples
Inspection of Table 4 reveals that out of the sixty-eight VOCs tested for (EPA Method 8260), almost half of them, thirty, were detected in at least one sample. Several VOCs were detected at many of the twelve

investigated sites. Among contaminants detected in groundwater of particular concern are Benzene, cis- and trans-1,2-Dichloroethene, Naphthalene, PCE, TCE and Vinyl Chloride. Table 4 lists two classes of groundwater quality criteria that were used to screen the measured VOC concentrations: Minnesota Drinking Water Standards (HRL - http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html) and Groundwater Intrusion Screening Values ($GW_{ISV}$ - http://www.pca.state.mn.us/publications/c-s4-06.pdf).

The following chemicals were found at concentrations above HRL at the following sites:

- Benzene: at MinValco in W1 and W2 (3340 Gorham Ave. – see Figures 1 and 4); at Kaufenberg in W1 (6225 - 37th St. W. – see Figures 1 and 8)
- cis-1,2-Dichloroethene: at The Family Digest in W2 (7008 Walker St. – see Figures 1 and 6); at Kaufenberg in W1 (6225 - 37th St. W. – see Figures 1 and 8)
- trans-1,2-Dichloroethene: at The Family Digest in W2 (7008 Walker St. – see Figures 1 and 6)
- Naphthalene: at MinValco in W1 and W2 (3340 Gorham Ave. – see Figures 1 and 4); at Lighting Plastics in W2 (3326 Gorham Ave. – see Figures 1 and 5)
- PCE: at Eclipse Electric in W1 and W3 (6512 Walker St. – see Figures 1 and 3); at Bryant Graphics in W1 (6504 Walker St. – see Figures 1 and 12)
- TCE: at Tall Sales in W1 (6714 Walker St. – see Figures 1 and 2); MinValco in W1 and W2 (3340 Gorham Ave. – see Figures 1 and 4); at The Family Digest in W1, W2 and W3 (7008 Walker St. – see Figures 1 and 6); at Pampered Pooch in W3 (7020 Walker St. – see Figures 1 and 7)
- Vinyl Chloride: at Tall Sales in W1 (6714 Walker St. – see Figures 1 and 2); at The Family Digest in W2 (7008 Walker St. – see Figures 1 and 6); at Kaufenberg in W1 (6225 - 37th St. W. – see Figures 1 and 8)

The following chemicals were found at concentrations above $GW_{ISV}$ at the following sites:

- Benzene: at MinValco in W1 and W2 (3340 Gorham Ave. – see Figures 1 and 4)
- cis-1,2-Dichloroethene: at Kaufenberg in W1 (6225 - 37th St. W. – see Figures 1 and 8)
- Naphthalene: at MinValco in W1 and W2 (3340 Gorham Ave. – see Figures 1 and 4)
- PCE: at Eclipse Electric in W1 (6512 Walker St. – see Figures 1 and 3)
- TCE: at The Family Digest in W2 and W3 (7008 Walker St. – see Figures 1 and 6); at Pampered Pooch in W3 (7020 Walker St. – see Figures 1 and 7)
- Vinyl Chloride: at Tall Sales in W1 (6714 Walker St. – see Figures 1 and 2); at Kaufenberg in W1 (6225 - 37th St. W. – see Figures 1 and 8); at Ace Supply in W2 (6425 Oxford St. – see Figures 1 and 9)

# 4.0 Discussion

Significant VOC contamination was detected in samples collected from most of the twelve investigated sites. Yellow, blue and red bullets are marked on Figure 1 to illustrate which sites are impacted by elevated soil, soil gas and groundwater VOC contamination, respectively. Elevated contamination is defined here as contamination found at concentrations above the environmental screening standards (10X ISV for soil gas, Tier 1 SLV for soil, and $GW_{ISV}$ and HRL for groundwater).

Chlorinated VOCs (PCE, TCE, cis-1,2-Dichloroethene and Vinyl Chloride) are the principal contaminants of concern. Other contaminants, like Benzene and Naphthalene, are also present at significant concentrations. These contaminants degraded groundwater resources over a considerable area in St. Louis Park and Edina. They also impacted (or have a high potential of impacting) the neighboring residential areas via vapor intrusion into indoor space (with an exception of low volatile Naphthalene).

VOCs were detected in soil samples at only four sites: Eclipse Electric (6512 Walker St. – PCE, Xylene), Bryant Graphics (6504 Walker St., next to Eclipse Electric - PCE), Lighting Plastics (3326 Gorham Ave. - Trimethylbenzene) in B-3 and Prof. Instruments (6824 Lake St. – Acetone, PCE) (see Figures 1, 3, 5, 12 and 13). However, since bodies of residual chlorinated VOC soil contamination are known to be of very limited lateral extent, it is difficult to encounter them via random probing/drilling. Therefore, it is not surprising that only a very limited number of soil samples collected at the investigated sites produced detects.

Detection of VOCs in soil samples constitutes a direct evidence of the presence of VOC soil contamination at these four properties (Eclipse Electric, Bryant Graphics, Lighting Plastics and Prof. Instruments). However, the presence of a widespread soil gas and groundwater contamination detected in most of the samples collected from the investigated sites indicates a close presence of residual soil contamination near the sampling points. These residual sources are present either within the investigated properties or within adjacent properties.

# 5.0 Recommendations

It is recommended that a more detailed investigation of selected sites be conducted with a goal of locating discrete zones of residual soil VOC contamination that serves as a long-time source of groundwater and soil gas contamination in the St. Louis Park area. If such zones could be located at shallow to moderate depths (0 to 30 ft.), active remediation would be feasible. Among investigative methods/technologies that should be considered for that next phase investigation is the Modified Active Gas Sampling (MAGS) presented at the 2008 Annual Meeting of State Coalition for Remediation of Drycleaners by Richard Lewis (HAS Engineers & Scientists). This methodology has been successfully applied at numerous sites in many states and appears to be among the most promising in terms of effectiveness and efficiency in locating discrete zones of chlorinated VOCs residual soil contamination.

Considering the sampling results of this investigation, the twelve sampled sites were ranked in order of priority for a more detailed investigation that MPCA may consider. This ranking is presented in Table 5 with the following sites receiving the top ranking:

- Eclipse Electric (and adjacent Bryant Graphics)
- Professional Instruments
- MinValco/Lighting Plastics

# 6.0 General Qualifications

AECOM professional services have been performed, findings obtained, and recommendations prepared in accordance with generally accepted engineering and hydrogeologic principles and standard practices. No other warranty, either expressed or implied, is made. AECOM assumes no responsibility for data or interpretations made by others.

# 7.0 References

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# Figures

## LEGEND

EXTENT OF CHLORINATED VOC GROUNDWATER PLUME (AECOM, 2009a)

LOCATION OF INVESTIGATED SITES

ELEVATED SOIL VOC CONTAMINATION

ELEVATED SOIL GAS VOC CONTAMINATION

ELEVATED GROUNDWATER VOC CONTAMINATION

N

0 250 500

SCALE IN FEET

NOTE: BASE MAP PROVIDED BY MARKHURD AERIAL PHOTOGRAPH DATED APRIL 04, 2000.


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LOCATIONS OF INVESTIGATED SITES
ST. LOUIS PARK, MINNESOTA
FOR: MINNESOTA POLLUTION CONTROL AGENCY

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/10/2009 |
| Approved: | RLD | 06/15/2009 |

PROJECT NUMBER 04660024

FIGURE NUMBER 1

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Tall Sales
6714 Walker Street
St. Louis Park, Minnesota

| | | |
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| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 2 | |

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NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

- SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Eclipse Electric
6512 Walker Street
St. Louis Park, Minnesota

| | | |
|---|---|---|
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| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
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| FIGURE NUMBER | 3 | |

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NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

- SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
MinValco Inc.
3340 Gorham Ave.
St. Louis Park, Minnesota

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| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 4 | |

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NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

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● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Lighting Plastics of MN
3326 Gorham Ave.
St. Louis Park, Minnesota

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| Approved: | RLD | 06/12/2009 |
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| FIGURE NUMBER | 5 | |

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NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

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- SAMPLING LOCATIONS

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763-852-4220
www.aecom.com
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SAMPLING LOCATION DIAGRAM
The Family Digest
7008 Walker St.
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 6 | |

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Pampered Pooch
7020 Walker Street
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 7 | |

X:\PROJECTS\04660024\REPORT FIGURES.DWG; 6/26/2009 6:02:41 PM; DONNELLY, CHAD; STS.stb

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Mr. Kaufenberg Property
6225 37th St. W.
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 8 | |

X:\PROJECTS\04660024\REPORT FIGURES.DWG; 6/26/2009 6:02:26 PM; DONNELLY, CHAD; STS.stb

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

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SAMPLING LOCATION DIAGRAM
Ace Supply
6425 Oxford Street
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 9 | |

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NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Care Cleaners
6528 Lake Street W.
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 10 | |

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Techna Graphics
6500 Lake Street W.
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 11 | |

X:\PROJECTS\04660024\REPORT FIGURES.DWG; 6/26/2009 6:01:23 PM; DONNELLY, CHAD; STS.stb

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

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SAMPLING LOCATION DIAGRAM
Bryant Graphics
6504 Walker Street
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 12 | |

X:\PROJECTS\04660024\REPORT FIGURES.DWG; 6/26/2009 6:01:07 PM; DONNELLY, CHAD; STS.stb

NORTH

BASE DIAGRAM FROM HENNEPIN COUNTY PROPERTY LOCATER MAP

LEGEND

● SAMPLING LOCATIONS

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SAMPLING LOCATION DIAGRAM
Prof. Instruments
6824 Lake Street W.
St. Louis Park, Minnesota

| | | |
|---|---|---|
| Drawn : | CMD | 06/10/2009 |
| Checked: | PAR | 06/12/2009 |
| Approved: | RLD | 06/12/2009 |
| PROJECT NUMBER | 04660024 | |
| FIGURE NUMBER | 13 | |

# Tables

# Table 1. Collected Soil, Soil Gas and Groundwater Samples - Summary Table

| Sample Name | Site | Laboratory | Lab ID | Date Collected | Time Collected | Medium Sampled | Sample Depth * | Analysis | Contamination Detected Above Criteria? | Criteria | Contaminants of Concern |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ft | | | | |
| Column No.: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | | | | | | | |
| B1 | Tall Sales Co., 6714 Walker St. | Pace | 1090353003 | 3/2/2009 | 6:00PM | Soil | 28 | 8260 MSV 5035 Prep | | SLV | |
| B2 | Tall Sales Co., 6714 Walker St. | Pace | 1090353002 | 3/2/2009 | 11:50AM | Soil | 24.5 | 8260 MSV 5035 Prep | | SLV | |
| B3 | Tall Sales Co., 6714 Walker St. | Pace | 1090353001 | 3/2/2009 | 1:30PM | Soil | 25 | 8260 MSV 5035 Prep | | SLV | |
| VP1 | Tall Sales Co., 6714 Walker St. | Pace | 1090436003 | 3/3/2009 | 10:25AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP2 | Tall Sales Co., 6714 Walker St. | Pace | 1090436002 | 3/2/2009 | 3:40PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE, TCE |
| VP3 | Tall Sales Co., 6714 Walker St. | Pace | 1090436001 | 3/2/2009 | 2:17PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE |
| W1 | Tall Sales Co., 6714 Walker St. | MDH | 200904537 | 3/3/2009 | 9:45AM | Grounwater | 41.39 | 8260 VOC | Yes | $GW_{ISV}$ | Vinyl Chloride |
| | | | | | | | | | | | |
| B1 | Eclipse Electric, 6512 Walker St. | Pace | 1090531003 | 3/4/2009 | 11:30AM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| B2 | Eclipse Electric, 6512 Walker St. | Pace | 1090431001 | 3/3/2009 | 11:15AM | Soil | 3 | 8260 MSV 5035 Prep | Yes | SLV | PCE |
| B3 | Eclipse Electric, 6512 Walker St. | Pace | 1090431002 | 3/3/2009 | 3:30PM | Soil | 27 | 8260 MSV 5035 Prep | | SLV | |
| VP1 | Eclipse Electric, 6512 Walker St. | Pace | 1090528004 | 3/4/2009 | 2:17PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE |
| VP2 | Eclipse Electric, 6512 Walker St. | Pace | 1090528002 | 3/4/2009 | 9:25AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE, TCE |
| VP2 DUP | Eclipse Electric, 6512 Walker St. | Pace | 1090528003 | 3/4/2009 | 9:30AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| VP3 | Eclipse Electric, 6512 Walker St. | Pace | 1090528001 | 3/4/2009 | 8:50AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| W1 | Eclipse Electric, 6512 Walker St. | MDH | 200904540 | 3/4/2009 | 12:10PM | Grounwater | 43.65 | 8260 VOC | Yes | $GW_{ISV}$ | PCE |
| W1 - DUP | Eclipse Electric, 6512 Walker St. | MDH | 200904541 | 3/4/2009 | 12:20PM | Grounwater | 43.65 | 8260 VOC | Yes | $GW_{ISV}$ | PCE |
| W2 | Eclipse Electric, 6512 Walker St. | MDH | 200904538 | 3/3/2009 | 2:05PM | Grounwater | 42.15 | 8260 VOC | No | $GW_{ISV}$ | |
| W3 | Eclipse Electric, 6512 Walker St. | MDH | 200904539 | 3/3/2009 | 4:55PM | Grounwater | 39.11 | 8260 VOC | No | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| B1 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090531002 | 3/4/2009 | 3:10PM | Soil | 29.5 | 8260 MSV 5035 Prep | | SLV | |
| B11 - DUP | MinValco Inc., 3340 Gorham Ave. | Pace | 1090531003 | 3/4/2009 | 3:20PM | Soil | 29.5 | 8260 MSV 5035 Prep | | SLV | |
| B2 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090611001 | 3/5/2009 | 11:40AM | Soil | 26 | 8260 MSV 5035 Prep | | SLV | |
| B3 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090611002 | 3/5/2009 | 4:45PM | Soil | 21 | 8260 MSV 5035 Prep | | SLV | |
| VP1 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090641001 | 3/6/2009 | 8:50AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| VP2 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090616001 | 3/5/2009 | 2:00PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| VP3 | MinValco Inc., 3340 Gorham Ave. | Pace | 1090641002 | 3/6/2009 | 9:38AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| W1 | MinValco Inc., 3340 Gorham Ave. | MDH | 200904542 | 3/4/2009 | 12:20PM | Grounwater | 35.7 | 8260 VOC | Yes | $GW_{ISV}$ | Benzene, Naphthalene |
| W2 | MinValco Inc., 3340 Gorham Ave. | MDH | 200904543 | 3/5/2009 | 4:55PM | Grounwater | 39.2 | 8260 VOC | Yes | $GW_{ISV}$ | Benzene, Naphthalene |
| | | | | | | | | | | | |
| B1 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090640001 | 3/6/2009 | 12:00PM | Soil | 16 | 8260 MSV 5035 Prep | | SLV | |
| B2 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090640002 | 3/6/2009 | 1:45PM | Soil | 19 | 8260 MSV 5035 Prep | | SLV | |
| B22 - DUP | Lighting Plastics of MN, 3326 Gorham | Pace | 1090640003 | 3/6/2009 | 1:55PM | Soil | 19 | 8260 MSV 5035 Prep | | SLV | |
| B3 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090640004 | 3/6/2009 | 5:20PM | Soil | 10 | 8260 MSV 5035 Prep | | SLV | |
| VP1 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090641003 | 3/6/2009 | 12:12PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| VP2 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090641004 | 3/6/2009 | 3:22PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP3 | Lighting Plastics of MN, 3326 Gorham | Pace | 1090641006 | 3/6/2009 | 4:07PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP33 - DUP | Lighting Plastics of MN, 3326 Gorham | Pace | 1090641007 | 3/6/2009 | 4:13PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W2 | Lighting Plastics of MN, 3326 Gorham | MDH | 200904544 | 3/6/2009 | 2:30PM | Grounwater | 38.91 | 8260 VOC | Yes | $GW_{ISV}$ | Benzene |
| | | | | | | | | | | | |
| B1 | The Family Digest, 7008 Walker St. | Pace | 1092050001 | 3/30/2009 | 10:45AM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| B2 | The Family Digest, 7008 Walker St. | Pace | 1092050002 | 3/30/2009 | 12:30PM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| B3 | The Family Digest, 7008 Walker St. | Pace | 1092050003 | 3/30/2009 | 4:00PM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| VP1 | The Family Digest, 7008 Walker St. | Pace | 1092045002 | 3/30/2009 | 2:36PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP2 | The Family Digest, 7008 Walker St. | Pace | 1092045001 | 3/30/2009 | 1:09PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP3 | The Family Digest, 7008 Walker St. | Pace | 1092045003 | 3/30/2009 | 5:00PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | The Family Digest, 7008 Walker St. | MDH | 200906767 | 3/30/2009 | 11:15AM | Grounwater | 26.25 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | The Family Digest, 7008 Walker St. | MDH | 200906768 | 3/30/2009 | 1:00PM | Grounwater | 26.45 | 8260 VOC | Yes | $GW_{ISV}$ | TCE |
| W3 | The Family Digest, 7008 Walker St. | MDH | 200906769 | 3/30/2009 | 4:45PM | Grounwater | 27.2 | 8260 VOC | Yes | $GW_{ISV}$ | TCE |
| | | | | | | | | | | | |
| B1 | Pampered Pooch, 7020 Walker St. | Pace | 1092172001 | 3/31/2009 | 11:45AM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| B2 | Pampered Pooch, 7020 Walker St. | Pace | 1092172002 | 3/31/2009 | 2:10PM | Soil | 28 | 8260 MSV 5035 Prep | | SLV | |
| B3 | Pampered Pooch, 7020 Walker St. | Pace | 1092232001 | 4/1/2009 | 9:30AM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Pampered Pooch, 7020 Walker St. | Pace | 1092185001 | 3/31/2009 | 12:53PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |

# Table 1. Collected Soil, Soil Gas and Groundwater Samples - Summary Table

| Sample Name | Site | Laboratory | Lab ID | Date Collected | Time Collected | Medium Sampled | Sample Depth * | Analysis | Contamination Detected Above Criteria? | Criteria | Contaminants of Concern |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ft | | | | |
| Column No.: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | | | | | | | |
| VP-2 | Pampered Pooch, 7020 Walker St. | Pace | 1092269002 | 4/1/2009 | 11:20AM | Soil Gas | 10 | TO-15 MSV AIR | Yes | 10 x Residential ISV | Methylene Chloride |
| VP-3 | Pampered Pooch, 7020 Walker St. | Pace | 1092269001 | 4/1/2009 | 10:51AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | Pampered Pooch, 7020 Walker St. | MDH | 200906770 | 3/31/2009 | 12:30PM | Grounwater | 27.8 | 8260 VOC | | $GW_{ISV}$ | |
| W1 DUP | Pampered Pooch, 7020 Walker St. | MDH | 200906771 | 3/31/2009 | 12:35PM | Grounwater | 27.8 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Pampered Pooch, 7020 Walker St. | MDH | 200906772 | 3/31/2009 | 2:40PM | Grounwater | 23.61 | 8260 VOC | | $GW_{ISV}$ | |
| W3 | Pampered Pooch, 7020 Walker St. | MDH | 200906773 | 4/1/2009 | 1:00PM | Grounwater | 27.2 | 8260 VOC | Yes | $GW_{ISV}$ | TCE |
| | | | | | | | | | | | |
| B-1 | Kaufenberg, 6225 37th St. W. | Pace | 1092232002 | 4/1/2009 | 4:00PM | Soil | 50 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Kaufenberg, 6225 37th St. W. | Pace | 1092370001 | 4/2/2009 | 10:00AM | Soil | 30 | 8260 MSV 5035 Prep | | SLV | |
| B-2 DUP | Kaufenberg, 6225 37th St. W. | Pace | 1092370002 | 4/2/2009 | 10:15AM | Soil | 30 | 8260 MSV 5035 Prep | | SLV | |
| B-3 | Kaufenberg, 6225 37th St. W. | Pace | 1092370003 | 4/2/2009 | 11:00AM | Soil | 30 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Kaufenberg, 6225 37th St. W. | Pace | 1092269003 | 4/1/2009 | 4:56PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-2 | Kaufenberg, 6225 37th St. W. | Pace | 1092382005 | 4/2/2009 | 4:23PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-3 | Kaufenberg, 6225 37th St. W. | Pace | 1092382006 | 4/2/2009 | 4:49PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| W1 | Kaufenberg, 6225 37th St. W. | MDH | 200911599 | 5/5/2009 | 11:25AM | Grounwater | 53 | 8260 VOC | Yes | $GW_{ISV}$ | cis-1,2-DCE, Vinyl Chloride |
| W1 DUP | Kaufenberg, 6225 37th St. W. | MDH | 200911600 | 5/5/2009 | 11:40AM | Grounwater | 53 | 8260 VOC | Yes | $GW_{ISV}$ | cis-1,2-DCE, Vinyl Chloride |
| | | | | | | | | | | | |
| B-1 | Ace Supply, 6425 Oxford St. | Pace | 1094258001 | 5/4/2009 | 11:42AM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Ace Supply, 6425 Oxford St. | Pace | 1092370004 | 4/2/2009 | 2:25PM | Soil | 17.5 | 8260 MSV 5035 Prep | | SLV | |
| B-3 | Ace Supply, 6425 Oxford St. | Pace | 1094258002 | 5/4/2009 | 4:00PM | Soil | 32 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Ace Supply, 6425 Oxford St. | Pace | 1092382002 | 4/2/2009 | 3:20PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-1 DUP | Ace Supply, 6425 Oxford St. | Pace | 1092382003 | 4/2/2009 | 3:25PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-2 | Ace Supply, 6425 Oxford St. | Pace | 1092382001 | 4/2/2009 | 2:43PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-3 | Ace Supply, 6425 Oxford St. | Pace | 1092382004 | 4/2/2009 | 4:03PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | TCE |
| W1 | Ace Supply, 6425 Oxford St. | MDH | 200911587 | 5/4/2009 | 12:01PM | Grounwater | 28.5 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Ace Supply, 6425 Oxford St. | MDH | 200911588 | 5/4/2009 | 1:30PM | Grounwater | 28.8 | 8260 VOC | Yes | $GW_{ISV}$ | Vinyl Chloride |
| W3 | Ace Supply, 6425 Oxford St. | MDH | 200911593 | 5/4/2009 | 4:10PM | Grounwater | 27.9 | 8260 VOC | | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| B-1 | Care Cleaners, 6528 Lake St. W. | Pace | 1092372001 | 4/3/2009 | 10:30AM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Care Cleaners, 6528 Lake St. W. | Pace | 1092372002 | 4/3/2009 | 1:40PM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-3 | Care Cleaners, 6528 Lake St. W. | Pace | 1094366001 | 5/5/2009 | 9:55AM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-3 DUP | Care Cleaners, 6528 Lake St. W. | Pace | 1094366002 | 5/5/2009 | 10:10AM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Care Cleaners, 6528 Lake St. W. | Pace | 1092380001 | 4/3/2009 | 12:09PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | 1,3-Butadiene, PCE |
| VP-2 | Care Cleaners, 6528 Lake St. W. | Pace | 1092380002 | 4/3/2009 | 3:17PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE, TCE |
| VP-3 | Care Cleaners, 6528 Lake St. W. | Pace | 1094372001 | 5/5/2009 | 11:02AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | Care Cleaners, 6528 Lake St. W. | MDH | 200906774 | 4/3/2009 | 11:25AM | Grounwater | 37.6 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Care Cleaners, 6528 Lake St. W. | MDH | 200906775 | 4/3/2009 | 2:30PM | Grounwater | 38.4 | 8260 VOC | | $GW_{ISV}$ | |
| W3 | Care Cleaners, 6528 Lake St. W. | MDH | 200911589 | 5/5/2009 | 10:30AM | Grounwater | 38.1 | 8260 VOC | | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| B-1 | Techna Graphics, 6500 Lake St. W. | Pace | 1094366003 | 5/5/2009 | 2:50PM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Techna Graphics, 6500 Lake St. W. | Pace | 1094467001 | 5/6/2009 | 9:25AM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-3 | Techna Graphics, 6500 Lake St. W. | Pace | 1094467002 | 5/6/2009 | 1:06PM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Techna Graphics, 6500 Lake St. W. | Pace | 1094372002 | 5/5/2009 | 3:30PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-2 | Techna Graphics, 6500 Lake St. W. | Pace | 1094372003 | 5/5/2009 | 4:05PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| VP-3 | Techna Graphics, 6500 Lake St. W. | Pace | 1094469001 | 5/6/2009 | 11:44AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | Techna Graphics, 6500 Lake St. W. | MDH | 200911590 | 5/5/2009 | 3:03PM | Grounwater | 38.91 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Techna Graphics, 6500 Lake St. W. | MDH | 200911591 | 5/6/2009 | 10:30AM | Grounwater | 38.77 | 8260 VOC | | $GW_{ISV}$ | |
| W3 | Techna Graphics, 6500 Lake St. W. | MDH | 200911592 | 5/6/2009 | 1:45PM | Grounwater | 38.52 | 8260 VOC | | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| B-1 | Bryant Graphics, 6504 Walker St. | Pace | 1094467003 | 5/6/2009 | 4:21PM | Soil | 40.5 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Bryant Graphics, 6504 Walker St. | Pace | 1094582001 | 5/7/2009 | 11:57AM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Bryant Graphics, 6504 Walker St. | Pace | 1094469002 | 5/6/2009 | 3:15PM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |

# Table 1. Collected Soil, Soil Gas and Groundwater Samples - Summary Table

| Sample Name | Site | Laboratory | Lab ID | Date Collected | Time Collected | Medium Sampled | Sample Depth * | Analysis | Contamination Detected Above Criteria? | Criteria | Contaminants of Concern |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ft | | | | |
| Column No.: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | | | | | | | |
| VP-2 | Bryant Graphics, 6504 Walker St. | Pace | 1094598001 | 5/7/2009 | 10:14AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | Bryant Graphics, 6504 Walker St. | MDH | 200911595 | 5/7/2009 | 9:40AM | Grounwater | 41.41 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Bryant Graphics, 6504 Walker St. | MDH | 200911596 | 5/7/2009 | 1:11PM | Grounwater | 40.98 | 8260 VOC | | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| B-1 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094582002 | 5/7/2009 | 4:08PM | Soil | 44 | 8260 MSV 5035 Prep | | SLV | |
| B-2 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094695002 | 5/8/2009 | 1:40PM | Soil | 48 | 8260 MSV 5035 Prep | | SLV | |
| B-3 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094695001 | 5/8/2009 | 10:00AM | Soil | 48 | 8260 MSV 5035 Prep | | SLV | |
| VP-1 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094598002 | 5/7/2009 | 2:22PM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE |
| VP-2 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094693002 | 5/8/2009 | 10:30AM | Soil Gas | 8 | TO-15 MSV AIR | Yes | 10 x Residential ISV | PCE |
| VP-3 | Prof. Instruments, 6824 Lake St. W. | Pace | 1094693001 | 5/8/2009 | 9:06AM | Soil Gas | 8 | TO-15 MSV AIR | | 10 x Residential ISV | |
| W1 | Prof. Instruments, 6824 Lake St. W. | MDH | 200911597 | 5/7/2009 | 4:39PM | Grounwater | 41.5 | 8260 VOC | | $GW_{ISV}$ | |
| W2 | Prof. Instruments, 6824 Lake St. W. | MDH | 200911660 | 5/8/2009 | 2:12PM | Grounwater | 40.9 | 8260 VOC | | $GW_{ISV}$ | |
| W3 | Prof. Instruments, 6824 Lake St. W. | MDH | 200911659 | 5/8/2009 | 10:27AM | Grounwater | 41.2 | 8260 VOC | | $GW_{ISV}$ | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| TRIP BLANK | | Pace | 1090640005 | 3/6/2009 | | Soil | -- | 8260 MSV 5035 Prep | | -- | |
| TRIP BLANK | | Pace | 1094258003 | 5/4/2009 | | Soil | -- | 8260 MSV 5035 Prep | | -- | |
| TRIP BLANK | | Pace | 1094582003 | 5/7/2009 | | Soil | -- | 8260 MSV 5035 Prep | | -- | |
| VP Equipment Blnk 1 | | Pace | 1090641005 | 3/6/2009 | 3:30PM | Soil Gas | -- | TO-15 MSV AIR | | -- | |
| TRIP BLANK | | MDH | 200904545 | 3/6/2009 | | Grounwater | -- | 8260 VOC | | -- | |
| TRIP BLANK | | MDH | 200906776 | 4/3/2009 | | Grounwater | -- | 8260 VOC | | -- | |
| TRIP BLANK | | MDH | 200911594 | 5/4/2009 | | Grounwater | -- | 8260 VOC | | -- | |
| TRIP BLANK | | MDH | 200911598 | 5/8/2009 | | Grounwater | -- | 8260 VOC | | -- | |
| TRIP BLANK | | MDH | 200911661 | 5/8/2009 | | Grounwater | -- | 8260 VOC | | -- | |

Notes:

SLV - Tier 1 Soil Leaching Values, June 27, 2005 - Risk Based Guidance for Evaluating the Soil Leaching Pathway, MPCA website: http://www.pca.state.mn.us/cleanup/riskbasedoc.html
ISV - Minnesota Vapor Intrusion Screening Values - Risk-Based Guidance for the Vapor Intrusion Pathway, September 2008; Intrusion Screening Values, February 2009, http://www.pca.state.mn.us/cleanup/riskbasedoc.html
$GW_{ISV}$ - Minnesota Groundwater Intrusion Screening Values - Risk-Based Guidance for the Vapor Intrusion Pathway, September 2008; http://www.pca.state.mn.us/cleanup/riskbasedoc.html

St. Louis Park VOC Sources Investigation
AECOM Project Number: 04660-024

# Table 2. Soil Samples VOC Analytical Results - (only detected VOCs included)

| Chemical | CAS Number | Tier 1 SLV | Tier 1 SRV (Residential) | B1 | B2 | B3 | B1 | B2 | B3 | B1 | B1 - DUP | B2 | B3 | B1 | B2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tall Sales, 6714 Walker St. | Tall Sales, 6714 Walker St. | Tall Sales, 6714 Walker St. | Eclipse Electric, 6512 Walker St. | Eclipse Electric, 6512 Walker St. | Eclipse Electric, 6512 Walker St. | MiniValco, 3340 Gorham Ave. | MiniValco, 3340 Gorham Ave. | MiniValco, 3340 Gorham Ave. | MiniValco, 3340 Gorham Ave. | Lighting Plastics, 3326 Gorham Ave. | Lighting Plastics, 3326 Gorham Ave. |
| Lab Sample ID: | | | | 1090353003 | 1090353002 | 1090353001 | 1090531001 | 1090431001 | 1090431002 | 1090531002 | 1090531003 | 1090611001 | 1090611002 | 1090640001 | 1090640002 |
| Sample Depth (ft): | | | | 28 | 21 | 25 | 32 | 3 | 27 | 29.5 | 29.5 | 26 | 21 | 16 | 19 |
| Column No.: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Percent Moisture | | | | 2.2 | 3.7 | 2.3 | 2.7 | 14.4 | 2.9 | 4.6 | 4.5 | 3.6 | 2.0 | 1.7 | 3.6 |
| Concentrations | | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] |
| Acetone | 67-64-1 | 7.00E+02 | 3.40E+05 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene (PCE) | 127-18-4 | 7.00E+01 | 7.20E+04 | ND | ND | ND | ND | **3.52E+04** | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 95-63-6 | NA | 8.00E+03 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 95-47-6 | NA | 4.50E+04 | ND | ND | ND | ND | **4.08E+02** | ND | ND | ND | ND | ND | ND | ND |

Notes:

ND - Below Laboratory Report Limit
Tier 1 SLV - Tier 1 Soil Leaching Values, June 27, 2005 - Risk Based Guidance for Evaluating the Soil Leaching Pathway, MPCA Website: http://www.pca.state.mn.us/cleanup/riskbasedoc.html
Tier 1 SRV - Tier 1 Soil Reference Values, December 2008 - Risk-Based Guidance for the Soil - Human Health Pathway, MPCA Website: http://www.pca.state.mn.us/publications/risk-tier1srv.xls
- Detected concentration exceeds Tier 1 SLV
- Detected concentration exceeds Tier 1 SRV
NA - No Value Available

# Table 2. Soil Samples VOC Analytical Results - (only detected VOCs included)

| Chemical | CAS Number | Tier 1 SLV | Tier 1 SRV (Residential) | B2-DUP | B-3 | B-1 | B-2 | B-3 | B-1 | B-2 | B-3 | B-1 | B-2 | B-2 DUP | B-3 | B-1 | B-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Lighting Plastics, 3326 Gorham Ave. | Lighting Plastics, 3326 Gorham Ave. | Family Digest, 7008 Walker St. | Family Digest, 7008 Walker St. | Family Digest, 7008 Walker St. | Pampered Pooch, 7020 Walker St. | Pampered Pooch, 7020 Walker St. | Pampered Pooch, 7020 Walker St. | Kaufenberg, 6225 37th St. W. | Kaufenberg , 6225 37th St. W. | Kaufenberg, 6225 37th St. W. | Kaufenberg, 6225 37th St. W. | Ace Supply, 6425 Oxford St. | Ace Supply, 6425 Oxford St. |
| Lab Sample ID: | | | | 1090640003 | 1090640004 | 1092050001 | 1092050002 | 1092050003 | 1092172001 | 1092172002 | 1092232001 | 1092232002 | 109237001 | 109237002 | 109237003 | 1094258001 | 109237000 |
| Sample Depth (ft): | | | | 19 | 10 | 26 | 26 | 26 | 27 | 22 | 27 | 50 | 30 | 30 | 30 | 32 | 17.5 |
| Column No.: 1 | 2 | 3 | 4 | 17 | 18 | 26 | 27 | 28 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | |
| | | | | | | | | | | | | | | | | | |
| Percent Moisture | | | | 3.6 | 3.2 | 4.7 | 7.1 | 2.5 | 7.0 | 3.0 | 2.7 | 8.0 | 5.2 | 4.4 | 3.0 | 11.2 | 1.3 |
| | | | | | | | | | | | | | | | | | |
| Concentrations | | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] |
| | | | | | | | | | | | | | | | | | |
| Acetone | 67-64-1 | 7.00E+02 | 3.40E+05 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene (PCE) | 127-18-4 | 7.00E+01 | 7.20E+04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 95-63-6 | NA | 8.00E+03 | ND | **5.2E+00** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 95-47-6 | NA | 4.50E+04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

ND - Below Laboratory Report Limit
Tier 1 SLV - Tier 1 Soil Leaching Values, June 27, 2005 - Risk Based Guidance for Eva
Tier 1 SRV - Tier 1 Soil Reference Values, December 2008 - Risk-Based Guidance for tl
- Detected concentration exceeds Tier 1 SLV
- Detected concentration exceeds Tier 1 SRV
NA - No Value Available

St. Louis Park VOC Sources Investigation
AECOM Project Number: 04660-024

# Table 2. Soil Samples VOC Analytical Results - (only detected VOCs included)

| Chemical | CAS Number | Tier 1 SLV | Tier 1 SRV (Residential) | | B-3 | B-1 | B-2 | B-3 | B-3 DUP | B-1 | B-2 | B-3 | B-1 | B-2 | B-1 | B-2 | B-3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ace Supply, 6425 Oxford St. | Care Cleaners, 6528 Lake St. W. | Care Cleaners, 6528 Lake St. W. | Care Cleaners, 6528 Lake St. W. | Care Cleaners, 6528 Lake St. W. | Techna Graphics, 6500 Lake St. W. | Techna Graphics, 6500 Lake St. W. | Techna Graphics, 6500 Lake St. W. | Bryant Graphics, 6504 Walker St. | Bryant Graphics, 6504 Walker St. | Prof. Instruments, 6824 Lake St. W. | Prof. Instruments, 6824 Lake St. W. | Prof. Instruments, 6824 Lake St. W. |
| Lab Sample ID: | | | | 4 | 1094258002 | 1092372001 | 1092372002 | 1094366001 | 1094366002 | 1094366003 | 1094467001 | 1094467002 | 1094467003 | 1094582001 | 1094582002 | 1094695002 | 1094695001 |
| Sample Depth (ft): | | | | | 32 | 36 | 37 | 40 | 40 | 42 | 32 | 40 | 40 | 40 | 42 | 44 | 44 |
| Column No.: 1 | 2 | 3 | 4 | | | 29 | 30 | 30 | 30 | 42 | 42 | 42 | | | | | |
| | | | | | | | | | | | | | | | | | |
| Percent Moisture | | | | | 10.6 | 2.2 | 2.4 | 14.3 | 13.1 | 19.3 | 1.1 | 13.7 | 1.7 | 9.6 | 5.5 | 3.7 | 12.5 |
| | | | | | | | | | | | | | | | | | |
| Concentrations | | [ug/kg] | [ug/kg] | | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] | [ug/kg] |
| | | | | | | | | | | | | | | | | | |
| Acetone | 67-64-1 | 7.00E+02 | 3.40E+05 | | ND | ND | ND | ND | ND | ND | ND | ND | | | **3.14E+01** | ND | ND |
| Tetrachloroethylene (PCE) | 127-18-4 | 7.00E+01 | 7.20E+04 | | ND | ND | ND | ND | ND | ND | ND | ND | **3.70E+00** | ND | **1.09E+01** | **5.90E+00** | ND |
| 1,2,4-Trimethylbenzene | 95-63-6 | NA | 8.00E+03 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 95-47-6 | NA | 4.50E+04 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

ND - Below Laboratory Report Limit
Tier 1 SLV - Tier 1 Soil Leaching Values, June 27, 2005 - Risk Based Guidance for Eva
Tier 1 SRV - Tier 1 Soil Reference Values, December 2008 - Risk-Based Guidance for tl
- Detected concentration exceeds Tier 1 SLV
- Detected concentration exceeds Tier 1 SRV
NA - No Value Available

St. Louis Park VOC Investigation
AECOM Project Number: 04660024

# Table 3. Soil Gas Samples VOC Analytical Results
## (only detected VOCs included)

| Chemical | CAS Number | **Residential 10 x ISVs (1)** | **Industrial 10 x ISVs (1)** | VP-1, Tall Sales, 6714 Walker St. | VP-2, Tall Sales, 6714 Walker St. | VP-3, Tall Sales, 6714 Walker St. | VP-1, Eclipse Electric, 6512 Walker St. | VP-2, Eclipse Electric, 6512 Walker St. | VP-22 DUP, Eclipse Electric, 6512 Walker St. | VP-3, Eclipse Electric, 6512 Walker St. | VP-1, MiniValco, 3340 Gorham Ave. | VP-2, MiniValco, 3340 Gorham Ave. | VP-3, MiniValco, 3340 Gorham Ave. | VP-1, Lighting Plastics, 3326 Gorham Ave. | VP-2, Lighting Plastics, 3326 Gorham Ave. | VP-3, Lighting Plastics, 3326 Gorham Ave. | VP-33 DUP, Lighting Plastics, 3326 Gorham Ave. | VP Equipment Blank #1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **[ug/m$^3$]** | **[ug/m$^3$]** | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] |
| Lab Sample ID: | | | | 1090436003 | 1090436002 | 1090436001 | 1090528004 | 1090528002 | 1090528003 | 1090528001 | 1090641001 | 1090616001 | 1090641002 | 1090641003 | 1090641004 | 1090641006 | 1090641007 | 1090641005 |
| Column No.: 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | |
| Acetone | 67-64-1 | **3.10E+05** | **8.70E+05** | 2.40E+01 | 3.14E+02 | 1.13E+02 | 5.04E+01 | | 1.1E+01 | 2.25E+01 | | 5.76E+01 | 5.54E+01 | 3.30E+01 | 1.43E+02 | 3.61E+01 | 1.66E+01 | 1.06E+01 |
| Benzene | 71-43-2 | **4.50E+01** | **1.30E+02** | 6.50E+00 | 3.11E+01 | 3.06E+01 | 4.80E+00 | | 1.3E+01 | 6.40E+00 | 5.70E+00 | 8.80E+00 | 5.20E+00 | 6.40E+00 | 6.10E+00 | 3.00E+00 | 1.50E+00 | 1.30E+00 |
| Bromodichloromethane | 75-27-4 | **NA** | **NA** | | | | | | | 2.60E+00 | | | | | | | | |
| 1,3-Butadiene | 109-99-0 | **3.00E+00** | **1.00E+01** | | | | | | | | | | | | | | | |
| 2-Butanone (MEK) | 78-93-3 | **5.00E+04** | **1.00E+05** | | | 1.29E+01 | 7.50E+00 | | 2.2E+00 | 3.90E+00 | 3.10E+00 | | 3.00E+00 | 6.00E+00 | 3.20E+00 | 1.60E+00 | 1.90E+00 | 1.50E+00 |
| Carbon disulfide | 75-15-0 | **7.00E+03** | **2.00E+04** | 8.00E+00 | 3.06E+01 | 7.40E+00 | 3.10E+00 | | 9.6E-01 | 3.30E+00 | 1.10E+00 | 4.80E+00 | 3.50E+00 | 5.40E+00 | 2.10E+00 | 1.12E+01 | 1.10E+00 | |
| Chloroform | 67-66-3 | **1.00E+03** | **3.00E+03** | | | | | | | 1.06E+01 | | 1.05E+01 | | | | | | |
| Chloromethane | 74-87-3 | **9.00E+02** | **3.00E+03** | | | | | | | | | | | | | | | 9.20E-01 |
| Cyclohexane | 110-82-7 | **6.00E+04** | **2.00E+05** | 4.20E+00 | | 1.19E+01 | 1.90E+00 | | 2.9E+02 | 1.10E+01 | 4.80E+00 | 6.10E+00 | 4.00E+00 | 8.00E+00 | 6.00E+00 | 2.40E+00 | 1.10E+00 | 3.20E+00 |
| 1,3-Dichlorobenzene | 541-73-1 | **NA** | **NA** | | | | | | | | 1.69E+01 | 3.62E+01 | 3.44E+01 | | | | | 1.65E+01 |
| 1,4-Dichlorobenzene | 106-46-7 | **6.00E+02** | **2.00E+03** | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | **5.00E+03** | **1.00E+04** | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 107-06-2 | **4.00E+00** | **1.00E+01** | | | | | | | | | | | 1.60E+00 | | | | |
| 1,1-Dichloroethene | 75-35-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | | | | | | | |
| cis-1,2-Dichloroethylene | 156-59-2 | **NA** | **NA** | | | | | | 8.6E+01 | 5.80E+00 | | | | | | | | |
| trans-1,2-Dichloroethylene | 156-60-5 | **6.00E+02** | **2.00E+03** | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | 75-71-8 | **2.00E+03** | **6.00E+03** | 4.10E+00 | | 2.80E+00 | 2.90E+00 | | 2.3E+00 | 2.40E+00 | 5.90E+00 | 6.00E+00 | 2.80E+00 | 2.90E+00 | 2.50E+00 | 2.60E+00 | 2.50E+00 | 2.40E+00 |
| Dichlorotetrafluoroethane | 76-14-2 | **NA** | **NA** | | | | | | | | | | | | | | | |
| Ethanol | 64-17-5 | **1.50E+05** | **4.20E+05** | 1.09E+01 | 9.10E+00 | | 3.84E+01 | | | 1.11E+01 | 2.72E+01 | 3.12E+01 | 2.11E+01 | 4.15E+01 | 2.72E+01 | 2.94E+01 | 9.40E+00 | 8.10E+00 |
| Ethyl acetate | 141-78-6 | **3.00E+04** | **8.00E+04** | | | | | | | | | | | | | | | |
| Ethylbenzene | 100-41-4 | **1.00E+04** | **3.00E+04** | 7.80E+00 | 1.33E+01 | 1.13E+01 | 5.20E+00 | | 6.1E+00 | 8.40E+00 | 8.30E+00 | 1.02E+01 | 6.30E+00 | 7.50E+00 | 8.30E+00 | 4.90E+00 | 3.20E+00 | 1.90E+00 |
| 4-Ethyltoluene | 622-96-8 | **NA** | **NA** | | | | 1.09E+01 | | | 3.10E+00 | 4.90E+00 | 7.80E+00 | 7.50E+00 | 9.80E+00 | 7.60E+00 | 4.60E+00 | 3.40E+00 | 3.40E+00 |
| n-Heptane | 142-82-5 | **NA** | **NA** | 8.30E+00 | 3.83E+01 | 2.58E+01 | 3.30E+00 | | 1.0E+01 | 9.50E+00 | 7.20E+00 | 1.18E+01 | 6.10E+00 | 1.05E+01 | 8.90E+00 | 3.50E+00 | 1.60E+00 | 2.20E+00 |
| Hexane (n-Hexane) | 110-54-3 | **2.00E+04** | **6.00E+04** | 1.14E+01 | 6.26E+01 | 4.11E+01 | 5.70E+00 | | 3.8E+01 | 1.38E+01 | 1.03E+01 | 1.51E+01 | 9.80E+00 | 1.75E+01 | 1.30E+01 | 5.10E+00 | 2.00E+00 | 3.60E+00 |
| 2-Hexanone | 591-78-6 | **NA** | **NA** | 8.20E+00 | 2.27E+01 | 1.63E+01 | 6.10E+00 | | | 1.00E+01 | 5.40E+00 | 9.10E+00 | 4.60E+00 | 7.60E+00 | 1.29E+01 | 2.80E+00 | 2.00E+00 | 1.80E+00 |
| Methylene chloride (dichloromethan | 75-09-2 | **2.00E+02** | **6.00E+02** | | | | 1.80E+00 | **9.76E+02** | | 3.30E+00 | 3.00E+00 | | 3.90E+00 | | | 1.00E+00 | 1.10E+00 | 1.58E+01 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | **3.00E+04** | **8.00E+04** | | | | 1.70E+00 | | | | | | | | | | | |
| Naphthalene | 91-20-3 | **9.00E+01** | **3.00E+02** | | | | | | | | | | | | | | | |
| 2-Propanol | 67-63-0 | **7.00E+04** | **2.00E+05** | | | | 1.62E+01 | | | | 2.19E+02 | 5.27E+02 | 4.18E+01 | 4.01E+01 | 3.35E+02 | | 3.90E+00 | |
| Propylene | 115-07-1 | **3.00E+04** | **8.00E+04** | | 3.18E+02 | 2.36E+02 | 7.70E+01 | | | | | 7.31E+01 | 4.10E+01 | | | | | |
| Tetrachloroethylene (PCE) | 127-18-4 | **2.00E+02** | **6.00E+02** | 4.10E+00 | **1.11E+03** | **2.46E+02** | **2.05E+03** | **2.07E+05** | **1.23E+06** | **2.80E+04** | 7.00E+00 | 6.20E+00 | | 6.90E+00 | 2.70E+00 | 2.93E+01 | 3.11E+01 | |
| Tetrahydrofuran | 109-99-9 | **NA** | **NA** | | | | | | | | | | | | | | | |
| Toluene | 108-88-3 | **5.00E+04** | **1.00E+05** | 3.95E+01 | 6.21E+01 | 5.65E+01 | 3.02E+01 | | 3.4E+01 | 5.05E+01 | 3.60E+01 | 2.83E+01 | 2.57E+01 | 2.50E+01 | 3.09E+01 | 1.57E+01 | 1.03E+01 | 1.20E+01 |
| 1,1,1-Trichloroethane | 71-55-6 | **5.00E+04** | **1.00E+05** | | | | | | 6.4E+00 | 2.49E+01 | | 1.39E+01 | 4.70E+00 | 2.76E+01 | | | | |
| 1,2,4-Trichlorobenzene | 120-81-1 | **7.00E+01** | **2.00E+02** | | | | | | | | | | | | | | | |
| Trichloroethylene (TCE) | 79-01-6 | **3.00E+01** | **8.00E+01** | | **3.11E+01** | | | | **8.17E+02** | **5.08E+01** | **8.10E+01** | **9.18E+02** | **3.56E+01** | **1.81E+02** | | 2.20E+00 | | |
| Trichlorofluoromethane | 75-69-4 | **7.00E+03** | **2.00E+04** | 1.80E+00 | | | | | | | | 1.90E+00 | 1.50E+00 | | | | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | **7.00E+01** | **2.00E+02** | 1.08E+01 | 1.12E+01 | 1.38E+01 | 4.06E+01 | | 8.9E+00 | 1.33E+01 | 1.75E+01 | 2.69E+01 | 2.38E+01 | 3.38E+01 | 2.57E+01 | 1.39E+01 | 1.51E+01 | 1.34E+01 |
| 1,3,5-Trimethylbenzene | 108-67-8 | **6.00E+01** | **2.00E+02** | | | 3.70E+00 | | | | 3.40E+00 | | | | | | | | |
| Vinyl acetate | 108-05-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | | | | | | | |
| Xylene, m&p | 108-38-3 | **1.00E+03** | **3.00E+03** | 1.77E+01 | 2.13E+01 | 2.12E+01 | 2.05E+01 | | 1.7E+01 | 2.67E+01 | 1.73E+01 | 2.10E+01 | 1.25E+01 | 1.47E+01 | 1.51E+01 | 1.08E+01 | 7.90E+00 | 7.70E+00 |
| Xylene, o | 95-47-6 | **1.00E+03** | **3.00E+03** | 5.90E+00 | 7.50E+00 | 7.70E+00 | 7.10E+00 | | 9.0E+02 | 9.00E+00 | 5.40E+00 | 6.60E+00 | 4.30E+00 | 5.20E+00 | 5.00E+00 | 3.60E+00 | 2.60E+00 | 2.50E+00 |

Notes:

(1) - Intrusion Screening Values (ISVs) for Vapor Intrusion Risk Evaluation (February 2009 Version, MPCA - http://www.pca.state.mn.us/publications/aq1-36.xls) multiplied by a factor of 100 - these ISV x 100 values are to be used to screen soil vapor data collected outside of a building's footprint

E - Analyte concentration exceeded the calibration range. The reported result is elimitated.

IS - The internal recovery associated with this result exceeds the lower control limit. The reported result should be considered an estimated

NA - no toxicity data available

ND - Below Laboratory Report Limit

SS - This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value

1M - This analyte did not meet the secondary source verification criteria for the initial calibration.

**4.05E+02** - Detected concentration exceeds Residential ISV x 10

**4.05E+02** - Detected concentration exceeds Industrial ISV x 10

St. Louis Park VOC Investigation
AECOM Project Number: 04660024

## Table 3. Soil Gas Samples VOC Analytical Results
## (only detected VOCs included)

| Chemical | CAS Number | **Residential 10 x ISVs (1)** | **Industrial 10 x ISVs (1)** | VP-1, Family Digest, 7008 Walker St. | VP-2, Family Digest, 7008 Walker St. | VP-3, Family Digest, 7008 Walker St. | VP-1, Pampered Pooch, 7020 Walker St. | VP-2, Pampered Pooch, 7020 Walker St. | VP-3, Pampered Pooch, 7020 Walker St. | VP-1, Kaufenberg, 6225 37th St. W. | VP-2, Kaufenberg, 6225 37th St. W. | VP-3, Kaufenberg, 6225 37th St. W. | VP-1, Ace Supply, 6425 Oxford St. | VP-1 DUP, Ace Supply, 6425 Oxford St. | VP-2, Ace Supply, 6425 Oxford St. | VP-3, Ace Supply, 6425 Oxford St. | VP-1, Care Cleaners, 6528 Lake St. W. | VP-2, Care Cleaners, 6528 Lake St. W. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **[ug/m$^3$]** | **[ug/m$^3$]** | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] |
| Lab Sample ID: | | | | 1092045002 | 1092045001 | 1092045003 | 1092185001 | 1092269002 | 1092269001 | 1092269003 | 1092382005 | 1092382006 | 1092382002 | 1092382003 | 1092382001 | 1092382004 | 1092380001 | 1092380002 |
| Column No.: 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | |
| Acetone | 67-64-1 | **3.10E+05** | **8.70E+05** | 4.26E+01 | 1.52E+01 | 1.14E+02 | 2.48E+01 | 8.59E+01 | 2.13E+01 | 4.22E+01 | 3.14E+01 | 4.04E+01 | 9.38E+01 | 8.51E+01 | 2.58E+01 | 4.00E+01 | 4.55E+01 | 3.37E+01 |
| Benzene | 71-43-2 | **4.50E+01** | **1.30E+02** | 5.60E+00 | 4.50E+00 | 4.80E+00 | 1.80E+00 | 5.70E+00 | 4.70E+00 | 1.20E+01 | 4.50E+00 | 7.50E+00 | 1.40E+00 | 9.90E-01 | 1.30E+00 | 4.90E+00 | 7.90E+00 | 5.80E+00 |
| Bromodichloromethane | 75-27-4 | **NA** | **NA** | | | | | | | | | | | | | | | |
| 1,3-Butadiene | 109-99-0 | **3.00E+00** | **1.00E+01** | | | | | | | | | | | | | | **3.70E+00** | 2.70E+00 |
| 2-Butanone (MEK) | 78-93-3 | **5.00E+04** | **1.00E+05** | 1.24E+01 | 4.10E+00 | 9.00E+00 | | 4.90E+00 | 3.70E+00 | 2.34E+01 | 3.50E+00 | 4.90E+00 | 7.20E+00 | | 4.50E+00 | 5.60E+00 | 1.25E+01 | 5.71E+01 |
| Carbon disulfide | 75-15-0 | **7.00E+03** | **2.00E+04** | 4.30E+00 | 7.90E+00 | 3.50E+00 | 2.30E+00 | | 3.60E+00 | 1.33E+01 | 1.80E+00 | 3.10E+00 | 2.00E+00 | 1.30E+00 | 1.70E+00 | 4.50E+00 | 5.40E+00 | 2.50E+00 |
| Chloroform | 67-66-3 | **1.00E+03** | **3.00E+03** | | | | | | | | | | | | | | | 2.40E+00 |
| Chloromethane | 74-87-3 | **9.00E+02** | **3.00E+03** | | | | | | | | | | | | | | | |
| Cyclohexane | 110-82-7 | **6.00E+04** | **2.00E+05** | 3.90E+00 | 9.40E+00 | 2.90E+00 | 7.00E+00 | 2.61E+01 | 3.40E+00 | | 4.50E+00 | 6.90E+00 | | | | 2.60E+00 | 6.60E+00 | 5.40E+00 |
| 1,3-Dichlorobenzene | 541-73-1 | **NA** | **NA** | 2.02E+01 | 1.42E+01 | 1.58E+01 | | | 1.39E+01 | 1.29E+01 | | | | | | 3.53E+01 | 2.60E+01 | 2.79E+01 |
| 1,4-Dichlorobenzene | 106-46-7 | **6.00E+02** | **2.00E+03** | | | | | | | | | | | | | 3.60E+01 | | |
| 1,1-Dichloroethane | 75-34-3 | **5.00E+03** | **1.00E+04** | | | | | | | | | | 1.40E+00 | | | | | |
| 1,2-Dichloroethane | 107-06-2 | **4.00E+00** | **1.00E+01** | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | | | | | | | 9.20E+00 |
| cis-1,2-Dichloroethylene | 156-59-2 | **NA** | **NA** | | | | | | | | | 1.10E+00 | | | | | | 1.07E+04 |
| trans-1,2-Dichloroethylene | 156-60-5 | **6.00E+02** | **2.00E+03** | | | | | | | | | | | | | | | 1.40E+00 |
| Dichlorodifluoromethane (Freon 12 | 75-71-8 | **2.00E+03** | **6.00E+03** | 2.40E+00 | 2.00E+00 | 2.40E+00 | 3.90E+00 | 2.52E+01 | 1.90E+00 | 2.20E+00 | 1.70E+00 | 2.00E+00 | 8.31E+01 | 1.65E+02 | 5.05E+01 | 3.30E+00 | 2.30E+00 | 2.00E+00 |
| Dichlorotetrafluoroethane | 76-14-2 | **NA** | **NA** | | | | | 1.00E+01 | | | | 8.30E+00 | 1.02E+01 | | 2.76E+01 | | | |
| Ethanol | 64-17-5 | **1.50E+05** | **4.20E+05** | 1.03E+02 | 7.22E+01 | 5.86E+01 | 3.98E+01 | 2.26E+01 | 9.90E+00 | 1.54E+01 | 1.28E+01 | 2.09E+01 | 8.50E+00 | 9.90E+00 | 1.11E+01 | 1.03E+01 | 6.70E+00 | 1.30E+01 |
| Ethyl acetate | 141-78-6 | **3.00E+04** | **8.00E+04** | 2.50E+00 | | 5.50E+00 | | | | | 1.20E+00 | | | | | | | |
| Ethylbenzene | 100-41-4 | **1.00E+04** | **3.00E+04** | 1.26E+01 | 7.60E+00 | 2.17E+01 | 1.80E+00 | 8.20E+00 | 5.00E+00 | 1.03E+01 | 4.80E+00 | 9.60E+00 | 2.30E+00 | 2.20E+00 | 2.30E+00 | 1.14E+01 | 1.04E+01 | 9.00E+00 |
| 4-Ethyltoluene | 622-96-8 | **NA** | **NA** | | | 9.40E+00 | | | 3.40E+00 | 3.60E+00 | | | | | | 7.30E+00 | | 4.80E+00 |
| n-Heptane | 142-82-5 | **NA** | **NA** | 7.80E+00 | 6.30E+00 | 5.50E+00 | 3.00E+00 | 1.10E+01 | 4.80E+00 | 1.11E+01 | 4.70E+00 | 8.90E+00 | 1.90E+00 | 1.40E+00 | 1.40E+00 | 4.80E+00 | 1.02E+01 | 8.80E+00 |
| Hexane (n-Hexane) | 110-54-3 | **2.00E+04** | **6.00E+04** | 8.10E+00 | 2.57E+01 | 7.40E+00 | 1.47E+01 | 9.63E+01 | 1.04E+01 | 2.06E+01 | 8.00E+00 | 1.66E+01 | 2.80E+00 | 2.10E+00 | 2.10E+00 | 7.90E+00 | 1.57E+01 | 1.11E+01 |
| 2-Hexanone | 591-78-6 | **NA** | **NA** | 3.08E+01 | 1.74E+01 | 2.10E+01 | 3.80E+00 | 9.50E+00 | 9.70E+00 | 9.10E+00 | 7.70E+00 | 1.32E+01 | 7.90E+00 | 1.04E+01 | 6.90E+00 | 2.31E+01 | 2.46E+01 | 2.14E+01 |
| Methylene chloride (dichlorometha | 75-09-2 | **2.00E+02** | **6.00E+02** | 1.40E+00 | | 2.89E+01 | 1.87E+02 | **1.24E+03** | 2.24E+01 | 7.80E+00 | 1.37E+01 | 2.90E+00 | | 1.70E+00 | | 1.40E+00 | | 1.10E+00 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | **3.00E+04** | **8.00E+04** | 2.50E+00 | | | | | | 8.40E+00 | | | 2.80E+00 | | | | | 1.20E+00 |
| Naphthalene | 91-20-3 | **9.00E+01** | **3.00E+02** | 1.17E+01 | | 4.70E+00 | | | | | | 4.60E+00 | | | | 3.80E+00 | | 2.52E+01 |
| 2-Propanol | 67-63-0 | **7.00E+04** | **2.00E+05** | 7.28E+01 | 1.67E+01 | 2.33E+01 | | 3.92E+01 | 8.30E+00 | 1.35E+01 | 4.90E+01 | 2.80E+01 | 4.34E+02 | 3.72E+02 | 5.17E+01 | 8.26E+01 | 1.24E+01 | 1.06E+01 |
| Propylene | 115-07-1 | **3.00E+04** | **8.00E+04** | 1.59E+01 | | 1.24E+01 | | 3.02E+01 | 4.88E+01 | 8.10E+01 | 1.60E+01 | 2.27E+01 | 8.10E+00 | 6.60E+00 | 5.80E+00 | 1.63E+01 | 3.88E+01 | 2.60E+01 |
| Tetrachloroethylene (PCE) | 127-18-4 | **2.00E+02** | **6.00E+02** | 5.43E+01 | | 2.00E+00 | | 1.53E+02 | | 4.00E+00 | 2.20E+00 | 3.23E+01 | 1.27E+01 | 2.73E+01 | 5.92E+01 | 5.23E+01 | **5.13E+02** | **1.74E+04** |
| Tetrahydrofuran | 109-99-9 | **NA** | **NA** | 2.30E+00 | | 7.60E+00 | | 8.00E+00 | 1.60E+00 | 4.50E+00 | 2.10E+00 | 4.20E+00 | 1.30E+00 | | | 2.20E+00 | 2.90E+00 | 2.70E+00 |
| Toluene | 108-88-3 | **5.00E+04** | **1.00E+05** | 1.22E+02 | 7.23E+01 | 9.82E+01 | 3.12E+01 | 3.96E+01 | 4.16E+01 | 3.85E+01 | 2.56E+01 | 3.53E+01 | 1.48E+01 | 1.78E+01 | 1.82E+01 | 5.01E+01 | 4.62E+01 | 3.78E+01 |
| 1,1,1-Trichloroethane | 71-55-6 | **5.00E+04** | **1.00E+05** | | | | | | | | | | | | 1.80E+00 | 7.90E+00 | | |
| 1,2,4-Trichlorobenzene | 120-81-1 | **7.00E+01** | **2.00E+02** | | | | | | | | | | | | | | | |
| Trichloroethylene (TCE) | 79-01-6 | **3.00E+01** | **8.00E+01** | | 1.70E+00 | | **5.08E+02** | | 2.90E+00 | | | 4.92E+01 | 7.10E+00 | 1.38E+01 | 1.07E+01 | 3.78E+01 | | **3.47E+02** |
| Trichlorofluoromethane | 75-69-4 | **7.00E+03** | **2.00E+04** | | | | | | | | | | 2.12E+02 | 4.31E+02 | 2.15E+02 | 2.60E+00 | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | **7.00E+01** | **2.00E+02** | 5.70E+00 | | 3.99E+01 | | 1.43E+01 | 1.55E+01 | 1.39E+01 | 8.90E+00 | 1.20E+01 | | 4.40E+00 | 6.70E+00 | 2.91E+01 | 1.93E+01 | 2.00E+01 |
| 1,3,5-Trimethylbenzene | 108-67-8 | **6.00E+01** | **2.00E+02** | | | 1.56E+01 | | | 4.30E+00 | | | | | | | | | 3.50E+00 |
| Vinyl acetate | 108-05-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | | | 6.20E+00 | 1.90E+00 | | | |
| Xylene, m&p | 108-38-3 | **1.00E+03** | **3.00E+03** | 2.71E+01 | 1.33E+01 | 8.09E+01 | 4.90E+00 | 1.94E+01 | 1.28E+01 | 1.04E+01 | 5.60E+00 | 7.60E+00 | 2.40E+00 | 3.00E+00 | 3.60E+00 | 1.35E+01 | 9.90E+00 | 1.04E+01 |
| Xylene, o | 95-47-6 | **1.00E+03** | **3.00E+03** | 7.50E+00 | 3.70E+00 | 1.93E+01 | | 3.90E+00 | 4.10E+00 | 4.30E+00 | 2.30E+00 | 3.20E+00 | | 1.40E+00 | 1.50E+00 | 6.00E+00 | 3.80E+00 | 3.90E+00 |

Notes:

(1) - Intrusion Screening Values (ISVs) for Vapor Intrusion Risk Evaluation (February 2009 Version, MPCA - http://www.pca.state.mn.us/publications/aq1-36.xls) multiplied by a factor of 100 - these ISV x 100 values are to be used to screen soil vapor data collected outside of a building's footprint

E - Analyte concentration exceeded the calibration range. The reported result is elimitated.

IS - The internal recovery associated with this result exceeds the lower control limit. The reported result should be considered an estimated

NA - no toxicity data available

ND - Below Laboratory Report Limit

SS - This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value

1M - This analyte did not meet the secondary source verification criteria for the initial calibration.

**4.05E+02** - Detected concentration exceeds Residential ISV x 10

**4.05E+02** - Detected concentration exceeds Industrial ISV x 10

## Table 3. Soil Gas Samples VOC Analytical Results (only detected VOCs included)

| Chemical | CAS Number | **Residential 10 x ISVs (1)** | **Industrial 10 x ISVs (1)** | VP-3, Care Cleaners, 6528 Lake St. W. | VP-1, Techna Graphics, 6500 Lake St. W. | VP-2, Techna Graphics, 6500 Lake St. W. | VP-3, Techna Graphics, 6500 Lake St. W. | VP-1 Bryant Graphics, 6504 Walker St. | VP-2 Bryant Graphics, 6504 Walker St. | VP-1 Prof. Instruments, 6824 Lake St. W. | VP-2 Prof. Instruments, 6824 Lake St. W. | VP-3 Prof. Instruments, 6824 Lake St. W. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **[ug/m$^3$]** | **[ug/m$^3$]** | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] | [ug/m$^3$] |
| Lab Sample ID: | | | | 1094372001 | 1094372002 | 1094372003 | 1094469001 | 1094469002 | 1094598001 | 1094598002 | 1094693002 | 1094693001 |
| Column No.: 1 | 2 | 3 | 4 | | | | | | | | | |
| Acetone | 67-64-1 | **3.10E+05** | **8.70E+05** | | 2.73E+02 | 2.10E+01 | 2.73E+01 | 2.06E+01 | 2.55E+01 | 2.53E+01 | 1.21E+01 | 1.78E+01 |
| Benzene | 71-43-2 | **4.50E+01** | **1.30E+02** | 3.70E+00 | | | 4.00E+00 | | 9.40E-01 | 4.00E+00 | 4.90E+00 | 2.90E+00 |
| Bromodichloromethane | 75-27-4 | **NA** | **NA** | | | | | | | | | |
| 1,3-Butadiene | 109-99-0 | **3.00E+00** | **1.00E+01** | | | | | 1.50E+00 | | | | |
| 2-Butanone (MEK) | 78-93-3 | **5.00E+04** | **1.00E+05** | 7.40E+00 | 7.87E+01 | 2.30E+00 | 6.40E+00 | 4.20E+00 | 6.10E+00 | 7.90E+00 | 3.00E+00 | 4.40E+00 |
| Carbon disulfide | 75-15-0 | **7.00E+03** | **2.00E+04** | 1.30E+00 | | | 1.60E+00 | | 3.80E+00 | 9.70E-01 | 1.00E+00 | 1.30E+00 |
| Chloroform | 67-66-3 | **1.00E+03** | **3.00E+03** | | | | | | | | 4.00E+00 | 2.41E+01 |
| Chloromethane | 74-87-3 | **9.00E+02** | **3.00E+03** | 1.10E+00 | | | | | | | | |
| Cyclohexane | 110-82-7 | **6.00E+04** | **2.00E+05** | 3.20E+00 | | | 2.90E+00 | | | 3.10E+00 | 6.30E+00 | 2.19E+01 |
| 1,3-Dichlorobenzene | 541-73-1 | **NA** | **NA** | | | | 5.90E+00 | 1.02E+01 | | | | |
| 1,4-Dichlorobenzene | 106-46-7 | **6.00E+02** | **2.00E+03** | | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | **5.00E+03** | **1.00E+04** | | | | | 1.20E+00 | | | | |
| 1,2-Dichloroethane | 107-06-2 | **4.00E+00** | **1.00E+01** | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | |
| cis-1,2-Dichloroethylene | 156-59-2 | **NA** | **NA** | | | | | | | | | |
| trans-1,2-Dichloroethylene | 156-60-5 | **6.00E+02** | **2.00E+03** | | | | | | | | | |
| Dichlorodifluoromethane (Freon 12 | 75-71-8 | **2.00E+03** | **6.00E+03** | 3.00E+00 | | 2.50E+00 | 3.20E+00 | 1.60E+00 | 2.80E+00 | 3.60E+00 | 2.70E+00 | 2.30E+00 |
| Dichlorotetrafluoroethane | 76-14-2 | **NA** | **NA** | | | | | | | | | |
| Ethanol | 64-17-5 | **1.50E+05** | **4.20E+05** | 1.85E+02 | 5.47E+01 | 1.16E+01 | 3.90E+00 | 4.50E+00 | 9.10E+00 | 8.90E+00 | 6.70E+00 | 4.60E+00 |
| Ethyl acetate | 141-78-6 | **3.00E+04** | **8.00E+04** | | | | | | | | | |
| Ethylbenzene | 100-41-4 | **1.00E+04** | **3.00E+04** | 5.50E+00 | | 1.70E+00 | 1.09E+01 | 1.30E+00 | 2.30E+00 | 9.90E+00 | 1.21E+01 | 5.20E+00 |
| 4-Ethyltoluene | 622-96-8 | **NA** | **NA** | | | | 4.00E+00 | | | | | |
| n-Heptane | 142-82-5 | **NA** | **NA** | 6.50E+00 | | | 4.30E+00 | | 1.20E+00 | 4.50E+00 | 6.40E+00 | 7.30E+00 |
| Hexane (n-Hexane) | 110-54-3 | **2.00E+04** | **6.00E+04** | 3.70E+00 | | | 6.00E+00 | | 1.80E+00 | 6.70E+00 | 1.18E+01 | 1.89E+01 |
| 2-Hexanone | 591-78-6 | **NA** | **NA** | | | | | | | 4.00E+00 | 4.00E+00 | |
| Methylene chloride (dichloromethar | 75-09-2 | **2.00E+02** | **6.00E+02** | 1.30E+00 | | 9.60E-01 | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | **3.00E+04** | **8.00E+04** | | | | | | | | | |
| Naphthalene | 91-20-3 | **9.00E+01** | **3.00E+02** | | | | 6.30E+00 | 4.60E+00 | | | | 4.80E+00 |
| 2-Propanol | 67-63-0 | **7.00E+04** | **2.00E+05** | 8.90E+02 | 2.17E+02 | 7.32E+01 | 1.10E+01 | 1.61E+01 | 1.58E+01 | 2.26E+01 | 9.40E+00 | 1.03E+01 |
| Propylene | 115-07-1 | **3.00E+04** | **8.00E+04** | 8.30E+00 | | | | 3.70E+00 | | | | 1.08E+01 |
| Tetrachloroethylene (PCE) | 127-18-4 | **2.00E+02** | **6.00E+02** | 2.63E+01 | | | | 1.65E+02 | 6.20E+00 | **3.62E+03** | **1.48E+03** | 1.35E+02 |
| Tetrahydrofuran | 109-99-9 | **NA** | **NA** | | | | | | | | | |
| Toluene | 108-88-3 | **5.00E+04** | **1.00E+05** | 2.00E+01 | 2.33E+01 | 2.80E+00 | 1.25E+01 | 3.00E+00 | 3.00E+00 | 1.11E+01 | 1.35E+01 | 7.10E+00 |
| 1,1,1-Trichloroethane | 71-55-6 | **5.00E+04** | **1.00E+05** | | | | | | | | 4.30E+00 | 2.30E+00 |
| 1,2,4-Trichlorobenzene | 120-81-1 | **7.00E+01** | **2.00E+02** | | | | 6.50E+00 | 5.50E+00 | | | | |
| Trichloroethylene (TCE) | 79-01-6 | **3.00E+01** | **8.00E+01** | | | | | | | | 1.90E+00 | 4.80E+00 |
| Trichlorofluoromethane | 75-69-4 | **7.00E+03** | **2.00E+04** | | | | 2.00E+00 | 1.50E+00 | | | | 6.30E+00 |
| 1,2,4-Trimethylbenzene | 95-63-6 | **7.00E+01** | **2.00E+02** | 9.50E+00 | | 4.90E+00 | 1.07E+01 | 6.80E+00 | 3.90E+00 | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | **6.00E+01** | **2.00E+02** | | | | | | | | | |
| Vinyl acetate | 108-05-4 | **2.00E+03** | **6.00E+03** | | | | | | | | | |
| Xylene, m&p | 108-38-3 | **1.00E+03** | **3.00E+03** | 2.01E+01 | | 3.50E+00 | 1.06E+01 | 5.30E+00 | 3.30E+00 | 4.00E+00 | 6.20E+00 | 3.60E+00 |
| Xylene, o | 95-47-6 | **1.00E+03** | **3.00E+03** | 6.50E+00 | | 1.40E+00 | 4.00E+00 | 2.30E+00 | 1.30E+00 | 1.70E+00 | 2.20E+00 | |

Notes:

(1) - Intrusion Screening Values (ISVs) for Vapor Intrusion Risk Evaluation (February 2009 Version, MPCA - http://www.pca.state.mn.us/publications/aq1-36.xls) multiplied by a factor of 100 - these ISV x 100 values are to be used to screen soil vapor data collected outside of a building's footprint

E - Analyte concentration exceeded the calibration range. The reported result is elimitated.

IS - The internal recovery associated with this result exceeds the lower control limit. The reported result should be considered an estimated

NA - no toxicity data available

ND - Below Laboratory Report Limit

SS - This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value

1M - This analyte did not meet the secondary source verification criteria for the initial calibration.

**4.05E+02** - Detected concentration exceeds Residential ISV x 10

**4.05E+02** - Detected concentration exceeds Industrial ISV x 10

St. Louis Park VOC Sources Investigation
AECOM Project Number: 04660024

# Table 4. Groundwater Samples VOC Analytical Results (only detected VOCs included)

| Chemical | CAS Number | $GW_{ISV}$ | Drinking Water Standard | W1, Tall Sales Co., 6714 Walker St. | W1 - Eclipse Electric, 6512 Walker St. | W1 DUP - Eclipse Electric, 6512 Walker St. | W2 - Eclipse Electric, 6512 Walker St. | W3 - Eclipse Electric, 6512 Walker St. | W1 - MinValco Inc., 3340 Gorham Ave. | W2 - MinValco Inc., 3340 Gorham Ave. | W2 - Lighting Plastics of MN, 3326 Gorham | W1 The Family Digest 7008 Walker St. | W2 The Family Digest 7008 Walker St. | W3 The Family Digest 7008 Walker St. | W1 Pampered Pooch, 7020 Walker St. | W1 DUP Pampered Pooch, 7020 Walker St. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] |
| Lab Sample ID: | | | | 200904537 | 200904540 | 200904541 | 200904538 | 200904539 | 200904542 | 200904543 | 200904544 | 200906767 | 200906768 | 200906769 | 200906770 | 200906771 |
| Acetone | 67-64-1 | 5.00E+05 | 7.00E+02 HRL | | | | | | | | 2.90E+01 | | | | | |
| Benzene | 71-43-2 | 4.00E+01 | 2.00E+00 HRL | 3.0E-01 | | | 5.00E-01 | 1.00E-01 J | 4.70E+01 RC | 4.80E+01 RC | 7.60E+01 RC | | 7.0E-01 | | 1.0E-01 J | 1.0E-01 J |
| Bromodichloromethane | 75-27-4 | 2.00E+01 | 6.00E+00 HRL | | | | | | | | | | | | | |
| Bromomethane | 74-83-9 | 3.00E+01 | 1.00E+01 HRL | | | | | | | | | | | | | |
| tert-Butylbenzene | 98-06-6 | | | | | | | | 7.6E+00 | | | | | | | |
| Chloroform | 67-66-3 | 1.00E+03 | 3.00E+01 HRL | | 8.0E-02 J | | 5.0E-01 | 1.0E-01 | | | | | | | | |
| Chloromethane | 74-87-3 | 2.00E+01 | | | | | 1.8E+00 | | 1.1E+00 | | 6.00E-01 J | | | | | |
| 1,1-Dichloroethane | 75-34-3 | 4.00E+03 | 7.00E+01 HRL | 1.6E-01 J | | | | | | | | | 2.0E-01 J | | | |
| 1,2-Dichloroethane | 107-06-2 | 2.00E+01 | 4.00E+00 HRL | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | 3.00E+02 | 2.00E+02 HRL | 4.0E-01 J | | | | | | | | | | | | |
| cis-1,2-Dichloroethylene | 156-59-2 | 5.00E+02 | 5.00E+01 HRL | 1.6E+01 | 4.0E-01 | 4.0E-01 | 1.0E-01 J | | 2.0E+00 | 1.0E-01 J | | | 7.6E+01 RC | 9.0E-01 | 2.3E+00 | 2.1E+00 |
| trans-1,2-Dichloroethylene | 156-60-5 | 3.00E+02 | 1.00E+02 HRL | 1.3E+01 | 2.0E-01 | 2.0E-01 | | | 3.9E+00 | | | | 2.0E+02 RC | 1.4E+00 | 2.0E-01 | 2.0E-01 |
| Dichlorofluoromethane | 75-43-4 | 7.00E+01 | | | | | | | | | | | | | | |
| Ethylbenzene | 100-41-4 | 7.00E+03 | 7.00E+02 HRL | | | | 4.6E-01 J | | 53 RC | 5.9E+01 RC | 1.70E+01 | | | | | |
| Isopropylbenzene | 98-82-8 | | 3.00E+02 HRL* | | | | | | 1.1E+01 | 1.2E+01 | 3.00E+00 | | | | | |
| p-Isopropyltoluene | 99-87-6 | | | | | | | | | 8.0E-01 | | | | | | |
| Methylene chloride (dichloromethane) | 75-09-2 | 4.00E+02 | 5.00E+00 HRL | | | | | | | | | | | | | |
| Naphthalene | 91-20-3 | 1.00E+03 | 3.00E+02 HRL | | | | | | 1.80E+03 RC | 1.30E+03 RC | 3.50E+02 RC | | | | | |
| n-Propylbenzene | 103-65-1 | | | | | | | | 3.2E+00 | 2.7E+00 | 5.00E-01 | | | | | |
| Styrene | 100-42-5 | 2.00E+04 | 1.00E+02 MCL | | | | | | 1.6E+00 | | | | | | | |
| Tetrachloroethylene (PCE) | 127-18-4 | 6.00E+01 | 5.00E+00 HRL | 2.0E-01 | 1.8E+03 RC | 1.8E+03 RC | 3.0E+00 | 1.1E+01 | 1.5E+00 | 6.0E-01 | 5.00E-01 | | | | | |
| Toluene | 108-88-3 | 4.00E+04 | 1.00E+03 HRL | 2.0E-01 J | 0.1 J | 0.2 J | 7.0E-01 | 3.0E-01 J | 3.5E+00 | 3.6E+00 | 1.20E+00 | 3.0E-01 J | 4.0E-01 J | 4.0E-01 J | 9.0E-01 | 5.0E-01 |
| 1,1,1-Trichloroethane | 71-55-6 | 3.00E+03 | 9.00E+03 HRL | 1.0E-01 J | 2.0E-01 | 2.0E-01 | | | | | | 2.0E-01 | | | 2.0E-01 | 2.0E-01 |
| 1,1,2-Trichloroethane | 79-00-5 | 4.00E+01 | 3.00E+00 HRL | | | | | | | | | | | | | |
| Trichloroethylene (TCE) | 79-01-6 | 2.00E+01 | 5.00E+00 HRL | 9.6E+00 | 4.4E+00 | 4.0E+00 | 2.9E+00 | 2.7E+00 | 6.9E+00 | 9.9E-02 J | | 5.4E+00 | 1.0E+02 RC | 2.6E+01 | 3.9E+00 | 4.3E+00 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 7.00E+01 | | | | | | | 3.9E+01 RC | 3.6E+01 RC | 4.80E+00 | | | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 7.00E+01 | 1.00E+02 HRL | | | | | | 1.4E+01 | 8.5E+00 | 1.20E+00 | | | | | |
| Vinyl Chloride | 75-01-4 | 1.00E+00 | 2.00E-01 HRL | 2.3E+00 | | | | | | | | | 7.0E-01 | | 2.0E-01 | |
| o-Xylene | 95-47-6 | 1.00E+03 | 1.00E+04 HRL | | | | | | 3.4E+01 RC | 3.8E+01 RC | 1.00E+01 | | | | | |
| p&m-Xylene | 106-42-3 108-38-3 | 8.00E+02 | 1.00E+04 HRL | | | | | | 3.7E+01 RC | 2.9E+01 RC | 8.90E+00 | | | | | |

Notes:

J - The analyte was positively identified. The result is below the report level and is estimated

$GW_{ISV}$ - Groundwater Intrusion Screening Values - Risk Based Guidance for the Vapor Intrusion Pathway. MPCA, Superfund RCRA and Voluntary Cleanup Section September 2008 - http://www.pca.state.mn.us/publications/c-s4-06.pdf

HRL - Minnesota Health Risk Limits for Groundwater: http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html

HRL* - Due to newly accumulated data MDH no longer recommends that value

MCL - Maximum Contaminant Level http://www.epa.gov/safewater/contaminants/index.html#mcls

ND - Below Laboratory Report Level

RC - Report level was changed due to sample dilution

- Measured groundwater concentration exceeds $GW_{ISV}$

- Measured groundwater concentration exceeds HRL/MCL

# Table 4. Groundwater Samples VOC Analytical Results (only detected VOCs included)

| Chemical | CAS Number | $GW_{ISV}$ | Drinking Water Standard | W2 Pampered Pooch, 7020 Walker St. | W3 Pampered Pooch, 7020 Walker St. | W1 Kaufenberg, 6225 37th St. W. | W1 DUP Kaufenberg, 6225 37th St. W. | W1 Ace Supply, 6425 Oxford St. | W2 Ace Supply, 6425 Oxford St. | W3 Ace Supply, 6425 Oxford St. | W1 Care Cleaners, 6528 Lake St. W. | W2 Care Cleaners, 6528 Lake St. W. | W3 Care Cleaners, 6528 Lake St. W. | W1 Techna Graphics, 6500 Lake St. W. | W2 Techna Graphics, 6500 Lake St. W. | W3 Techna Graphics, 6500 Lake St. W. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] |
| Lab Sample ID: | | | | 200906772 | 200906773 | 200911599 | 200911600 | 200911587 | 200911588 | 200911593 | 200906774 | 200906775 | 200911589 | 200911590 | 200911591 | 200911592 |
| Acetone | 67-64-1 | 5.00E+05 | 7.00E+02 HRL | | | | | | | | | | | | | |
| Benzene | 71-43-2 | 4.00E+01 | 2.00E+00 HRL | | | 9.2E+00 | 8.4E+00 | | 3.0E-01 | | | | | | 1.0E-01 J | 1.0E-01 J |
| Bromodichloromethane | 75-27-4 | 2.00E+01 | 6.00E+00 HRL | | | | | | | | | | | | | |
| Bromomethane | 74-83-9 | 3.00E+01 | 1.00E+01 HRL | | | | | | | | | | | | | |
| tert-Butylbenzene | 98-06-6 | | | | | | | | | | | | | | | |
| Chloroform | 67-66-3 | 1.00E+03 | 3.00E+01 HRL | | | | | | | | | | | | | |
| Chloromethane | 74-87-3 | 2.00E+01 | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | 4.00E+03 | 7.00E+01 HRL | | | | | | 1.6E-01 J | | | | | | | |
| 1,2-Dichloroethane | 107-06-2 | 2.00E+01 | 4.00E+00 HRL | | | | | | 9.0E-01 | 3.0E-01 | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | 3.00E+02 | 2.00E+02 HRL | | | 1.2E+01 | 1.0E+01 | | | | | | | | | |
| cis-1,2-Dichloroethylene | 156-59-2 | 5.00E+02 | 5.00E+01 HRL | | 1.4E+00 | 3.2E+03 RC | 3.3E+03 RC | | 8.0E-01 | 5.0E-01 | | 4.0E-01 | | | | |
| trans-1,2-Dichloroethylene | 156-60-5 | 3.00E+02 | 1.00E+02 HRL | | 1.4E+00 | 8.6E+01 | 7.4E+01 | | | | | | | | | |
| Dichlorofluoromethane | 75-43-4 | 7.00E+01 | | | | | | | 2.3E+00 | 5.0E-01 | | | | | | |
| Ethylbenzene | 100-41-4 | 7.00E+03 | 7.00E+02 HRL | | | | | | | | | | | | | |
| Isopropylbenzene | 98-82-8 | | 3.00E+02 HRL* | | | | | | | | | | | | | |
| p-Isopropyltoluene | 99-87-6 | | | | | | | | | | | | | | | |
| Methylene chloride (dichloromethane) | 75-09-2 | 4.00E+02 | 5.00E+00 HRL | | | | | | | | | | | | | |
| Naphthalene | 91-20-3 | 1.00E+03 | 3.00E+02 HRL | | | | | | | | | | | | | |
| n-Propylbenzene | 103-65-1 | | | | | | | | | | | | | | | |
| Styrene | 100-42-5 | 2.00E+04 | 1.00E+02 MCL | | | | | | | | | | | | | |
| Tetrachloroethylene (PCE) | 127-18-4 | 6.00E+01 | 5.00E+00 HRL | | | 4.0E+00 | 3.4E+00 | | 1.8E-01 J | 1.7E+00 | | 5.0E-01 | | | | |
| Toluene | 108-88-3 | 4.00E+04 | 1.00E+03 HRL | 3.0E-01 J | 2.0E-01 J | 2.0E-01 J | 2.0E-01 J | | 2.0E-01 J | 1.0E-01 J | 9.0E-01 | 9.0E-01 | 2.0E-01 J | | 2.0E-01 J | 2.0E-01 J |
| 1,1,1-Trichloroethane | 71-55-6 | 3.00E+03 | 9.00E+03 HRL | | 3.0E-01 | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 79-00-5 | 4.00E+01 | 3.00E+00 HRL | | | | | | | 1.0E-01 J | | | | | | |
| Trichloroethylene (TCE) | 79-01-6 | 2.00E+01 | 5.00E+00 HRL | | 6.8E+01 | 6.9E+00 | 6.2E+00 | | 2.0E-01 | 1.5E+00 | | | 5.0E-02 J | | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 7.00E+01 | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 7.00E+01 | 1.00E+02 HRL | | | | | | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 1.00E+00 | 2.00E-01 HRL | | | 1.2E+02 RC | 1.2E+02 RC | | 1.4E+00 | 1.0E-01 J | | | | | | |
| o-Xylene | 95-47-6 | 1.00E+03 | 1.00E+04 HRL | | | | | | | | | | | | | |
| p&m-Xylene | 106-42-3 108-38-3 | 8.00E+02 | 1.00E+04 HRL | | | | | | | | | | | | | |

Notes:

J - The analyte was positively identified. The result is below the report level an is estimated

$GW_{ISV}$ - Groundwater Intrusion Screening Values - Risk Based Guidance for the Vap Intrusion Pathway. MPCA, Superfund RCRA and Voluntary Cleanup Sectio September 2008 - http://www.pca.state.mn.us/publications/c-s4-06.pdf

HRL - Minnesota Health Risk Limits for Groundwater: http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html

HRL* - Due to newly accumulated data MDH no longer recommends that value

MCL - Maximum Contaminant Level http://www.epa.gov/safewater/contaminants/index.html#mcls

ND - Below Laboratory Report Level

RC - Report level was changed due to sample dilution

- Measured groundwater concentration exceeds $GW_{ISV}$

- Measured groundwater concentration exceeds HRL/MCL

# Table 4. Groundwater Samples VOC Analytical Results (only detected VOCs included)

| Chemical | CAS Number | $GW_{ISV}$ | Drinking Water Standard | | W1 Bryant Graphics, 6504 Walker St. | W2 Bryant Graphics, 6504 Walker St. | W1 Prof. Instruments, 6824 Lake St. W. | W2 Prof. Instruments, 6824 Lake St. W. | W3 Prof. Instruments, 6824 Lake St. W. | TRIP BLANK | TRIP BLANK | TRIP BLANK | TRIP BLANK | TRIP BLANK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | [ug/L] | [ug/L] | | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] | [ug/L] |
| Lab Sample ID: | | | | | 200911595 | 200911596 | 200911597 | 200911660 | 200911659 | 200904545 | 200906776 | 200911594 | 200911598 | 200911661 |
| | | | | | | | | | | | | | | |
| Acetone | 67-64-1 | 5.00E+05 | 7.00E+02 | HRL | | | | | | | | | | |
| Benzene | 71-43-2 | 4.00E+01 | 2.00E+00 | HRL | | 1.0E-01 J | | 1.0E-01 J | 1.0E-01 J | | | | | |
| Bromodichloromethane | 75-27-4 | 2.00E+01 | 6.00E+00 | HRL | | 3.0E-01 | | | | | | | | |
| Bromomethane | 74-83-9 | 3.00E+01 | 1.00E+01 | HRL | | | | | | 5.0E-01 J | | | | |
| tert-Butylbenzene | 98-06-6 | | | | | | | | | | | | | |
| Chloroform | 67-66-3 | 1.00E+03 | 3.00E+01 | HRL | | 5.0E-01 | | | 2.0E-01 | | | | | |
| Chloromethane | 74-87-3 | 2.00E+01 | | | | | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | 4.00E+03 | 7.00E+01 | HRL | | | | | | | | | | |
| 1,2-Dichloroethane | 107-06-2 | 2.00E+01 | 4.00E+00 | HRL | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | 3.00E+02 | 2.00E+02 | HRL | | | | | | | | | | |
| cis-1,2-Dichloroethylene | 156-59-2 | 5.00E+02 | 5.00E+01 | HRL | 3.0E-01 | | | | | | | | | |
| trans-1,2-Dichloroethylene | 156-60-5 | 3.00E+02 | 1.00E+02 | HRL | 2.0E-01 | | | | | | | | | |
| Dichlorofluoromethane | 75-43-4 | 7.00E+01 | | | | | | | | | | | | |
| Ethylbenzene | 100-41-4 | 7.00E+03 | 7.00E+02 | HRL | | | | 3.0E-01 J | | | | | | |
| Isopropylbenzene | 98-82-8 | | 3.00E+02 | HRL* | | | | | | | | | | |
| p-Isopropyltoluene | 99-87-6 | | | | | | | | | | | | | |
| Methylene chloride (dichloromethane) | 75-09-2 | 4.00E+02 | 5.00E+00 | HRL | | | | | | | | | | |
| Naphthalene | 91-20-3 | 1.00E+03 | 3.00E+02 | HRL | | | | | | | | | | |
| n-Propylbenzene | 103-65-1 | | | | | | | | | | | | | |
| Styrene | 100-42-5 | 2.00E+04 | 1.00E+02 | MCL | | | | | | | | | | |
| Tetrachloroethylene (PCE) | 127-18-4 | 6.00E+01 | 5.00E+00 | HRL | 5.8E+01 | 1.2E+00 | 4.7E+00 | 1.2E+01 | 3.8E+00 | | | | | |
| Toluene | 108-88-3 | 4.00E+04 | 1.00E+03 | HRL | | 3.0E-01 J | | 4.0E-01 J | 3.0E-01 J | | | | | |
| 1,1,1-Trichloroethane | 71-55-6 | 3.00E+03 | 9.00E+03 | HRL | | | | | | | | | | |
| 1,1,2-Trichloroethane | 79-00-5 | 4.00E+01 | 3.00E+00 | HRL | | | | | | | | | | |
| Trichloroethylene (TCE) | 79-01-6 | 2.00E+01 | 5.00E+00 | HRL | 3.8E+00 | 3.4E+00 | 1.5E+00 | 9.0E-01 | 2.0E+00 | | | | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 7.00E+01 | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 7.00E+01 | 1.00E+02 | HRL | | | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 1.00E+00 | 2.00E-01 | HRL | | | | | | | | | | |
| o-Xylene | 95-47-6 | 1.00E+03 | 1.00E+04 | HRL | | | | | | | | | | |
| p&m-Xylene | 106-42-3 108-38-3 | 8.00E+02 | 1.00E+04 | HRL | | | | | | | | | | |

Notes:

J - The analyte was positively identified. The result is below the report level an is estimated

$GW_{ISV}$ - Groundwater Intrusion Screening Values - Risk Based Guidance for the Vap Intrusion Pathway. MPCA, Superfund RCRA and Voluntary Cleanup Sectio September 2008 - http://www.pca.state.mn.us/publications/c-s4-06.pdf

HRL - Minnesota Health Risk Limits for Groundwater: http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html

HRL* - Due to newly accumulated data MDH no longer recommends that value

MCL - Maximum Contaminant Level http://www.epa.gov/safewater/contaminants/index.html#mcls

ND - Below Laboratory Report Level

RC - Report level was changed due to sample dilution

- Measured groundwater concentration exceeds $GW_{ISV}$

- Measured groundwater concentration exceeds HRL/MCL

# Table 5. Ranking of the Sites Recommended for the Next Phase of Investigation

| Site | Ranking | Contaminants of Concern | | | Comments |
|---|---|---|---|---|---|
| | | Soil | Soil Gas | Groundwater | |
| | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | |
| Eclipse Electric, 6512 Walker St. | 1 | PCE | PCE, TCE | PCE | Prime Site - Source of PCE contamination |
| Bryant Graphics, 6504 Walker St. | 1 | | PCE below SLV | | Site adjacent to Eclipse Electric |
| Prof. Instruments, 6824 Lake St. W. | 2 | PCE below SLV | PCE | | Potential PCE Source |
| MinValco Inc., 3340 Gorham Ave. | 3 | | TCE | Benzene, Naphthalene | Potential TCE Source, Groundwater impacted but not with chlroinated VOCs |
| Lighting Plastics of MN, 3326 Gorham | 3 | TMB below SLV | TCE | Benzene | Potential TCE Source, Groundwater impacted but not with chlroinated VOCs |
| Tall Sales Co., 6714 Walker St. | 4 | | PCE, TCE | Vinyl Chloride | Potential PCE Source |
| Care Cleaners, 6528 Lake St. W. | 4 | | 1,3-Butadiene, PCE, TCE | | Potential PCE Source |
| The Family Digest, 7008 Walker St. | 5 | | | TCE | Downgradient of Source? Adjacent to Pampered Pooch |
| Pampered Pooch, 7020 Walker St. | 5 | | TCE, Methylene Chloride | TCE | Downgradient of Source? Adjacent to Family Digest |
| Kaufenberg, 6225 37th St. W. | 6 | | TCE | cis-1,2-DCE, Vinyl Chloride | Groundwater at +50' depth, not likely significant source |
| Ace Supply, 6425 Oxford St. | 6 | | TCE | Vinyl Chloride | Not likely significant source |
| Techna Graphics, 6500 Lake St. W. | 7 | | | | No significant contamination detected |
| | | | | | |

Notes:

SLV - Tier 1 Soil Leaching Values, June 27, 2005 - Risk Based Guidance for Evaluating the Soil Leaching Pathway, MPCA website:

# Appendices

Appendix A - Pace Laboratory Report

Appendix B - Minnesota Department of Health Laboratory Report

Appendix C – Boring Logs

Appendix D – Soil Gas Probe Sampling Summary

Appendix E– Sampling Information Forms

Appendix F – Probing/Borehole Locations, Waypoints (Superfund and Emergency Response Section – Spatial Data Reporting Spreadsheets)

Appendix G – Sampling and Analysis Plan

# Appendix A

Pace Laboratory Report

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 10, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090353001** | **B-6 714 WALKER #3 (25')** | Solid | 03/02/09 13:30 | 03/03/09 12:38 |
| **1090353002** | **B-6 714 WALKER #2 (21')** | Solid | 03/02/09 11:50 | 03/03/09 12:38 |
| **1090353003** | **B-6 714 WALKER #1 (28')** | Solid | 03/02/09 18:00 | 03/03/09 12:38 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090353001** | **B-6 714 WALKER #3 (25')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090353002** | **B-6 714 WALKER #2 (21')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090353003** | **B-6 714 WALKER #1 (28')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 10, 2009

**General Information:**
3 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 10, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/3885

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 133264)
  - Acetone

R1: RPD value was outside control limits.
- LCSD (Lab ID: 133265)
  - Acetone

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3885

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #3 (25')** **Lab ID: 1090353001** Collected: 03/02/09 13:30 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.3** | % | 0.10 | 0.10 | 1 | | 03/05/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 15.7 | 5.2 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 3.9 | 1.3 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 107-05-1 | |
| Benzene | ND | ug/kg | 3.9 | 0.48 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.9 | 0.41 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.9 | 0.86 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.9 | 0.28 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.9 | 0.78 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 3.9 | 0.89 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 3.9 | 1.4 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.9 | 0.52 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.9 | 0.40 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.9 | 0.27 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.9 | 0.63 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.9 | 0.16 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 3.9 | 1.1 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.9 | 0.43 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 3.9 | 0.67 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.9 | 0.43 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.9 | 0.48 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.9 | 0.96 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.9 | 0.56 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.9 | 0.48 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.9 | 0.56 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.9 | 0.26 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.9 | 0.21 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 3.9 | 0.63 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.9 | 0.54 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.9 | 0.45 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.9 | 0.41 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.78 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.59 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 3.9 | 0.53 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.9 | 0.50 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.9 | 0.63 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.9 | 0.58 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.9 | 0.83 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.43 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.41 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 3.9 | 0.89 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 3.9 | 0.21 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.9 | 0.61 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #3 (25')** **Lab ID: 1090353001** Collected: 03/02/09 13:30 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.9 | 0.55 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.9 | 0.49 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 3.9 | 0.32 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 3.9 | 0.67 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.9 | 0.44 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.9 | 0.49 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.9 | 0.21 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.9 | 0.092 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.34 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.58 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 3.9 | 0.72 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 3.9 | 0.93 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 109-99-9 | |
| Toluene | ND | ug/kg | 3.9 | 0.67 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.9 | 0.55 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.9 | 0.31 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.9 | 0.61 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.9 | 0.56 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.9 | 0.45 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.9 | 0.69 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.9 | 1.1 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 3.9 | 0.85 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.9 | 0.12 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 3.9 | 0.68 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.9 | 0.84 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.9 | 0.44 | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 97 | % | 42-125 | | 1 | 03/04/09 13:09 | 03/09/09 09:26 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #2 (21')** **Lab ID: 1090353002** Collected: 03/02/09 11:50 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.7** | % | 0.10 | 0.10 | 1 | | 03/05/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.0 | 6.3 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.7 | 1.6 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.7 | 0.49 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.7 | 0.33 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.7 | 0.94 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.7 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.7 | 1.7 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.7 | 0.62 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.7 | 0.48 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.7 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.7 | 0.20 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.7 | 1.4 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.7 | 0.51 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.7 | 0.81 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.7 | 1.2 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.7 | 0.67 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.7 | 0.58 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.7 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.7 | 0.65 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.7 | 0.54 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.95 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.71 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.7 | 0.64 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.7 | 0.60 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.7 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.7 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.7 | 0.74 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #2 (21')** **Lab ID: 1090353002** Collected: 03/02/09 11:50 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.7 | 0.67 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.7 | 0.38 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.7 | 0.80 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.7 | 0.53 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.7 | 0.11 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.41 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.7 | 0.87 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.7 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.7 | 0.80 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.7 | 0.66 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.7 | 0.38 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.7 | 0.73 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.7 | 0.55 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.7 | 0.83 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.7 | 1.3 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.7 | 0.14 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.7 | 0.82 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.7 | 0.53 | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 03/05/09 13:09 | 03/09/09 09:50 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #1 (28')** **Lab ID: 1090353003** Collected: 03/02/09 18:00 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.2** | % | 0.10 | 0.10 | 1 | | 03/05/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.0 | 6.0 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.5 | 1.5 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.5 | 0.55 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.5 | 0.46 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.5 | 0.98 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.5 | 0.32 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.5 | 0.89 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.5 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.5 | 1.6 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.5 | 0.59 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.5 | 0.45 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.5 | 0.30 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.5 | 0.72 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.5 | 0.19 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.5 | 1.3 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.5 | 0.49 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.5 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.5 | 0.49 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.5 | 0.55 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.5 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.5 | 0.64 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.5 | 0.55 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.5 | 0.64 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.5 | 0.30 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.5 | 0.23 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.5 | 0.72 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.5 | 0.62 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.5 | 0.51 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.5 | 0.47 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.5 | 0.90 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.5 | 0.68 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.5 | 0.61 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.5 | 0.57 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.5 | 0.72 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.5 | 0.66 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.5 | 0.95 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.5 | 0.49 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.5 | 0.47 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.5 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.5 | 0.70 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

**Sample: B-6 714 WALKER #1 (28')** **Lab ID: 1090353003** Collected: 03/02/09 18:00 Received: 03/03/09 12:38 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.5 | 0.63 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.5 | 0.56 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.5 | 0.36 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.5 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.5 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.5 | 0.56 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.5 | 0.10 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.5 | 0.39 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.5 | 0.67 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.5 | 0.82 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.5 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.5 | 0.76 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.5 | 0.63 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.5 | 0.36 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.5 | 0.70 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.5 | 0.64 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.5 | 0.52 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.5 | 0.79 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.5 | 1.3 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.5 | 0.97 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.5 | 0.13 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.5 | 0.23 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.5 | 0.78 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.0 | 0.96 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.5 | 0.51 | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 95-47-6 | |
| Dibromofluoromethane (S) | 90 | % | 68-125 | | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 54-150 | | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 03/05/09 13:09 | 03/09/09 10:13 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

QC Batch: MSV/3885 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090353001, 1090353002, 1090353003

METHOD BLANK: 133263 Matrix: Solid
Associated Lab Samples: 1090353001, 1090353002, 1090353003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Acetone | ug/kg | ND | 20.0 | 03/09/09 08:16 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Benzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromoform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

METHOD BLANK: 133263 Matrix: Solid

Associated Lab Samples: 1090353001, 1090353002, 1090353003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/09/09 08:16 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Styrene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Toluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/09/09 08:16 | |
| Dibromofluoromethane (S) | % | 87 | 68-125 | 03/09/09 08:16 | |
| Toluene-d8 (S) | % | 104 | 54-150 | 03/09/09 08:16 | |

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 49.6 | 49.9 | 99 | 100 | 75-127 | .5 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 44.5 | 47.3 | 89 | 95 | 65-125 | 6 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.2 | 53.5 | 104 | 107 | 75-125 | 2 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.0 | 47.2 | 92 | 94 | 67-131 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 51.1 | 53.6 | 102 | 107 | 75-136 | 5 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 45.7 | 47.7 | 91 | 95 | 62-127 | 4 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 48.8 | 49.6 | 98 | 99 | 73-125 | 2 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 30.4 | 36.4 | 61 | 73 | 47-163 | 18 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 44.7 | 49.2 | 89 | 98 | 57-125 | 10 | 20 | |
| Acetone | ug/kg | 50 | 22.9 | 29.1 | 46 | 58 | 49-179 | 24 | 20 | L0,R1 |
| Benzene | ug/kg | 50 | 48.9 | 50.1 | 98 | 100 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 51.7 | 52.4 | 103 | 105 | 75-125 | 1 | 20 | |
| Bromoform | ug/kg | 50 | 54.1 | 55.5 | 108 | 111 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.9 | 56.4 | 106 | 113 | 61-129 | 7 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.1 | 52.0 | 102 | 104 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.2 | 53.7 | 108 | 107 | 75-125 | .9 | 20 | |
| Chloroethane | ug/kg | 50 | 50.4 | 53.4 | 101 | 107 | 66-135 | 6 | 20 | |
| Chloroform | ug/kg | 50 | 48.2 | 48.6 | 96 | 97 | 73-125 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 49.2 | 49.4 | 98 | 99 | 46-137 | .3 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 48.9 | 49.3 | 98 | 99 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 51.7 | 52.9 | 103 | 106 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.8 | 52.1 | 102 | 104 | 75-125 | 3 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.3 | 53.3 | 107 | 107 | 75-126 | .08 | 20 | |
| m&p-Xylene | ug/kg | 100 | 113 | 110 | 113 | 110 | 75-125 | 3 | 20 | |
| Methylene Chloride | ug/kg | 50 | 48.3 | 50.0 | 97 | 100 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.9 | 53.9 | 108 | 108 | 75-125 | .2 | 20 | |
| Styrene | ug/kg | 50 | 50.0 | 49.1 | 100 | 98 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 58.4 | 58.1 | 117 | 116 | 75-126 | .5 | 20 | |
| Toluene | ug/kg | 50 | 54.3 | 53.3 | 109 | 107 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 49.3 | 50.5 | 99 | 101 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.7 | 51.4 | 101 | 103 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 55.4 | 54.7 | 111 | 109 | 75-125 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.6 | 52.6 | 103 | 105 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 95 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 87 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 104 | 103 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

QC Batch: MPRP/14929 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090353001, 1090353002, 1090353003

SAMPLE DUPLICATE: 589924

| Parameter | Units | 1090426002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 3.8 | 3.7 | 5 | 30 | |

SAMPLE DUPLICATE: 590466

| Parameter | Units | 1090353001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 2.3 | 2.2 | 6 | 30 | |



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# QUALIFIERS

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/3885

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## ANALYTE QUALIFIERS

| | |
|---|---|
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST.LOUIS PARK INVEST.
Pace Project No.: 1090353

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090353001** | **B-6 714 WALKER #3 (25')** | EPA 8260 | MSV/3856 | EPA 8260 | MSV/3885 |
| **1090353002** | **B-6 714 WALKER #2 (21')** | EPA 8260 | MSV/3856 | EPA 8260 | MSV/3885 |
| **1090353003** | **B-6 714 WALKER #1 (28')** | EPA 8260 | MSV/3856 | EPA 8260 | MSV/3885 |
| **1090353001** | **B-6 714 WALKER #3 (25')** | % Moisture | MPRP/14929 | | |
| **1090353002** | **B-6 714 WALKER #2 (21')** | % Moisture | MPRP/14929 | | |
| **1090353003** | **B-6 714 WALKER #1 (28')** | % Moisture | MPRP/14929 | | |



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MPCA Project

1090353

STS | AECOM

# Chain of Custody Record

№ 4341

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office Mpls.
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number ___ Through ___
Laboratory: Pace
Contact Person: Carol Davy
Phone No. 612-607-1700
Results Due: Stnd.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6714 Walker #3 (25') | 3/2/09 | 1330 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-6714 Walker #2 (21') | 3/2/09 | 1150 | X | | 4 | Soil | 3 | 1 | | | | | ↓ | 002 |
| B-6714 Walker #1 (28') | 3/2/09 | 1300 | X | | 4 | Soil | 3 | 1 | | | | | | 003 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/2/09 | Time above | Delivery by: Pace | Date 3-3-09 | Time 1145 |
| Received by: [signature] | Date 3-3-09 | Time 1145 | Relinquished by: Pace [signature] | Date 3-3-09 | Time 1220 |
| Received by: [signature] | Date 3/3/09 | Time 1233 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

**Client Name:** STS/aecom **Project #** 1090353

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

**Tracking #:** _____

Optional
Proj. Due Date:
Proj. Name:

**Custody Seal on Cooler/Box Present:** ☐ yes ☒ no Seals intact: ☐ yes ☒ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____ Temp Blank: Yes ____ No ☒

**Thermometer Used** ~~80344042~~, 179425 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

**Cooler Temperature** 1.8 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 3/3/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** DMM **Date:** 3-3-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

PEW 3/3/09

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 11, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090431001** | **B-6512 WALKER #2 (3')** | Solid | 03/03/09 11:15 | 03/04/09 15:23 |
| **1090431002** | **B-6512 WALKER #3 (27')** | Solid | 03/03/09 15:30 | 03/04/09 15:23 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090431001** | **B-6512 WALKER #2 (3')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090431002** | **B-6512 WALKER #3 (27')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/3885

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 133264)
  - Acetone

R1: RPD value was outside control limits.
- LCSD (Lab ID: 133265)
  - Acetone

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3885

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Method:** **EPA 8260**
**Description:** 8260 MSV Med Level Full List
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3887

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Sample: B-6512 WALKER #2 (3')** **Lab ID: 1090431001** Collected: 03/03/09 11:15 Received: 03/04/09 15:23 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **14.4** | % | 0.10 | 0.10 | 1 | | 03/05/09 00:00 | | |
| **8260 MSV Med Level Full List** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 2000 | 1010 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 400 | 97.3 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 107-05-1 | |
| Benzene | ND | ug/kg | 200 | 89.7 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 400 | 116 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 400 | 120 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 400 | 74.6 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-27-4 | |
| Bromoform | ND | ug/kg | 400 | 207 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 400 | 180 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 2000 | 664 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 400 | 323 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 400 | 64.0 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 400 | 98.2 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 400 | 81.1 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 400 | 65.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 400 | 179 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-00-3 | |
| Chloroform | ND | ug/kg | 2000 | 58.0 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 400 | 80.8 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 400 | 107 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 400 | 139 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 2000 | 658 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 400 | 83.3 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 400 | 114 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 400 | 77.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 400 | 355 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 400 | 100 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 400 | 149 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 400 | 66.6 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 400 | 52.6 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 200 | 106 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 400 | 123 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 400 | 66.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 400 | 150 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 400 | 91.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 400 | 68.0 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 400 | 129 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 400 | 76.3 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 400 | 189 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 400 | 76.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 400 | 84.2 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 400 | 196 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 200 | 81.9 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 400 | 211 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Sample: B-6512 WALKER #2 (3')** **Lab ID: 1090431001** Collected: 03/03/09 11:15 Received: 03/04/09 15:23 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Med Level Full List** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 400 | 43.7 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 400 | 159 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 400 | 65.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 400 | 126 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 400 | 83.2 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 400 | 120 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 400 | 80.1 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 103-65-1 | |
| Styrene | ND | ug/kg | 400 | 96.0 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 400 | 114 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 400 | 100 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 79-34-5 | |
| Tetrachloroethene | **35200** | ug/kg | 400 | 86.7 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 2000 | 259 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 109-99-9 | |
| Toluene | ND | ug/kg | 400 | 61.4 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 400 | 136 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 400 | 138 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 400 | 75.0 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 400 | 161 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 400 | 77.8 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 400 | 64.7 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 400 | 134 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 400 | 152 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 400 | 152 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 400 | 73.5 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 400 | 80.1 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 400 | 136 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 1330-20-7 | |
| o-Xylene | **408** | ug/kg | 200 | 61.8 | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 95-47-6 | |
| Dibromofluoromethane (S) | 83 | % | 70-150 | | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 1868-53-7 | |
| Toluene-d8 (S) | 83 | % | 70-155 | | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 75 | % | 70-147 | | 8 | 03/09/09 13:13 | 03/09/09 16:06 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Sample: B-6512 WALKER #3 (27')** **Lab ID: 1090431002** Collected: 03/03/09 15:30 Received: 03/04/09 15:23 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.9** | % | 0.10 | 0.10 | 1 | | 03/05/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.4 | 6.1 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.6 | 1.5 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.6 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.6 | 0.32 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.6 | 0.91 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.6 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.6 | 1.7 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.6 | 0.61 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.6 | 0.46 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.6 | 0.73 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.6 | 0.19 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.6 | 1.3 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.6 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.6 | 0.78 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.6 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.6 | 0.56 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.6 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.6 | 0.65 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.6 | 0.56 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.6 | 0.66 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.6 | 0.73 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.6 | 0.63 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.6 | 0.53 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.92 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.69 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.6 | 0.62 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.6 | 0.59 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.6 | 0.73 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.6 | 0.68 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.6 | 0.97 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.50 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.6 | 1.0 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.6 | 0.71 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

**Sample: B-6512 WALKER #3 (27')** **Lab ID: 1090431002** Collected: 03/03/09 15:30 Received: 03/04/09 15:23 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.6 | 0.65 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.6 | 0.37 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.6 | 0.78 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.6 | 0.51 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.6 | 0.11 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.40 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.68 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.6 | 0.84 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.6 | 1.1 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.6 | 0.78 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.6 | 0.64 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.6 | 0.37 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.6 | 0.71 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.6 | 0.66 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.6 | 0.53 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.6 | 0.81 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.6 | 1.3 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.6 | 0.99 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.6 | 0.14 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.6 | 0.80 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.2 | 0.98 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.6 | 0.52 | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 54-150 | | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 03/05/09 13:09 | 03/09/09 10:37 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

QC Batch: MSV/3885 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090431002

METHOD BLANK: 133263 | Matrix: Solid
Associated Lab Samples: 1090431002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Acetone | ug/kg | ND | 20.0 | 03/09/09 08:16 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Benzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromoform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

METHOD BLANK: 133263 Matrix: Solid

Associated Lab Samples: 1090431002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/09/09 08:16 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Styrene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Toluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/09/09 08:16 | |
| Dibromofluoromethane (S) | % | 87 | 68-125 | 03/09/09 08:16 | |
| Toluene-d8 (S) | % | 104 | 54-150 | 03/09/09 08:16 | |

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 49.6 | 49.9 | 99 | 100 | 75-127 | .5 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 44.5 | 47.3 | 89 | 95 | 65-125 | 6 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.2 | 53.5 | 104 | 107 | 75-125 | 2 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.0 | 47.2 | 92 | 94 | 67-131 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 51.1 | 53.6 | 102 | 107 | 75-136 | 5 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 45.7 | 47.7 | 91 | 95 | 62-127 | 4 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 48.8 | 49.6 | 98 | 99 | 73-125 | 2 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 30.4 | 36.4 | 61 | 73 | 47-163 | 18 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 44.7 | 49.2 | 89 | 98 | 57-125 | 10 | 20 | |
| Acetone | ug/kg | 50 | 22.9 | 29.1 | 46 | 58 | 49-179 | 24 | 20 | L0,R1 |
| Benzene | ug/kg | 50 | 48.9 | 50.1 | 98 | 100 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 51.7 | 52.4 | 103 | 105 | 75-125 | 1 | 20 | |
| Bromoform | ug/kg | 50 | 54.1 | 55.5 | 108 | 111 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.9 | 56.4 | 106 | 113 | 61-129 | 7 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.1 | 52.0 | 102 | 104 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.2 | 53.7 | 108 | 107 | 75-125 | .9 | 20 | |
| Chloroethane | ug/kg | 50 | 50.4 | 53.4 | 101 | 107 | 66-135 | 6 | 20 | |
| Chloroform | ug/kg | 50 | 48.2 | 48.6 | 96 | 97 | 73-125 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 49.2 | 49.4 | 98 | 99 | 46-137 | .3 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 48.9 | 49.3 | 98 | 99 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 51.7 | 52.9 | 103 | 106 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.8 | 52.1 | 102 | 104 | 75-125 | 3 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.3 | 53.3 | 107 | 107 | 75-126 | .08 | 20 | |
| m&p-Xylene | ug/kg | 100 | 113 | 110 | 113 | 110 | 75-125 | 3 | 20 | |
| Methylene Chloride | ug/kg | 50 | 48.3 | 50.0 | 97 | 100 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.9 | 53.9 | 108 | 108 | 75-125 | .2 | 20 | |
| Styrene | ug/kg | 50 | 50.0 | 49.1 | 100 | 98 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 58.4 | 58.1 | 117 | 116 | 75-126 | .5 | 20 | |
| Toluene | ug/kg | 50 | 54.3 | 53.3 | 109 | 107 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 49.3 | 50.5 | 99 | 101 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.7 | 51.4 | 101 | 103 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 55.4 | 54.7 | 111 | 109 | 75-125 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.6 | 52.6 | 103 | 105 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 95 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 87 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 104 | 103 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

QC Batch: MSV/3886 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Med Level Full List
Associated Lab Samples: 1090431001

METHOD BLANK: 133268 | Matrix: Solid
Associated Lab Samples: 1090431001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1-Dichloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1-Dichloroethene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,1-Dichloropropene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 250 | 03/09/09 08:28 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,2-Dichloroethane | ug/kg | ND | 25.0 | 03/09/09 08:28 | |
| 1,2-Dichloropropane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,3-Dichloropropane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 2,2-Dichloropropane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 2-Butanone (MEK) | ug/kg | ND | 250 | 03/09/09 08:28 | |
| 2-Chlorotoluene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 4-Chlorotoluene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Acetone | ug/kg | ND | 250 | 03/09/09 08:28 | |
| Allyl chloride | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Benzene | ug/kg | ND | 25.0 | 03/09/09 08:28 | |
| Bromobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Bromochloromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Bromodichloromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Bromoform | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Bromomethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Carbon tetrachloride | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Chlorobenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Chloroethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Chloroform | ug/kg | ND | 250 | 03/09/09 08:28 | |
| Chloromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Dibromochloromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Dibromomethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

METHOD BLANK: 133268 Matrix: Solid

Associated Lab Samples: 1090431001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Dichlorofluoromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Ethylbenzene | ug/kg | ND | 25.0 | 03/09/09 08:28 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| m&p-Xylene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Methyl-tert-butyl ether | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Methylene Chloride | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| n-Butylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| n-Propylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Naphthalene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| o-Xylene | ug/kg | ND | 25.0 | 03/09/09 08:28 | |
| p-Isopropyltoluene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| sec-Butylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Styrene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| tert-Butylbenzene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Tetrachloroethene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Tetrahydrofuran | ug/kg | ND | 250 | 03/09/09 08:28 | |
| Toluene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Trichloroethene | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Trichlorofluoromethane | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| Vinyl chloride | ug/kg | ND | 50.0 | 03/09/09 08:28 | |
| 4-Bromofluorobenzene (S) | % | 100 | 70-147 | 03/09/09 08:28 | |
| Dibromofluoromethane (S) | % | 106 | 70-150 | 03/09/09 08:28 | |
| Toluene-d8 (S) | % | 105 | 70-155 | 03/09/09 08:28 | |

LABORATORY CONTROL SAMPLE & LCSD: 133269 133270

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 2500 | 2630 | 2490 | 105 | 100 | 68-140 | 6 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 2500 | 2560 | 2530 | 102 | 101 | 67-131 | 1 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 2500 | 2810 | 2740 | 112 | 110 | 70-130 | 3 | 20 | |
| 1,1-Dichloroethane | ug/kg | 2500 | 2690 | 2540 | 108 | 102 | 70-130 | 6 | 20 | |
| 1,1-Dichloroethene | ug/kg | 2500 | 2860 | 2630 | 114 | 105 | 70-133 | 8 | 20 | |
| 1,2-Dichloroethane | ug/kg | 2500 | 2450 | 2380 | 98 | 95 | 70-132 | 3 | 20 | |
| 1,2-Dichloropropane | ug/kg | 2500 | 2600 | 2510 | 104 | 100 | 70-130 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 2500 | 2480 | 2510 | 99 | 100 | 50-150 | 1 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 2500 | 2220 | 2340 | 89 | 94 | 50-150 | 5 | 21 | |
| Acetone | ug/kg | 2500 | 2460 | 2610 | 98 | 104 | 23-214 | 6 | 21 | |
| Benzene | ug/kg | 2500 | 2680 | 2460 | 107 | 98 | 70-130 | 8 | 20 | |
| Bromodichloromethane | ug/kg | 2500 | 2620 | 2510 | 105 | 100 | 70-130 | 4 | 20 | |
| Bromoform | ug/kg | 2500 | 2250 | 2230 | 90 | 89 | 70-130 | .9 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

LABORATORY CONTROL SAMPLE & LCSD: 133269 133270

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 2500 | 3090 | 2830 | 123 | 113 | 65-153 | 9 | 20 | |
| Carbon tetrachloride | ug/kg | 2500 | 2790 | 2550 | 112 | 102 | 70-142 | 9 | 20 | |
| Chlorobenzene | ug/kg | 2500 | 2740 | 2600 | 110 | 104 | 70-130 | 5 | 20 | |
| Chloroethane | ug/kg | 2500 | 2520 | 2400 | 101 | 96 | 70-178 | 5 | 20 | |
| Chloroform | ug/kg | 2500 | 2740 | 2530 | 110 | 101 | 70-130 | 8 | 20 | |
| Chloromethane | ug/kg | 2500 | 2400 | 2160 | 96 | 87 | 53-143 | 10 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 2500 | 2760 | 2590 | 111 | 104 | 70-130 | 7 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 2500 | 2580 | 2520 | 103 | 101 | 70-130 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 2500 | 2610 | 2490 | 104 | 100 | 70-130 | 5 | 20 | |
| Ethylbenzene | ug/kg | 2500 | 2620 | 2540 | 105 | 101 | 70-130 | 3 | 20 | |
| m&p-Xylene | ug/kg | 5000 | 5460 | 5280 | 109 | 106 | 70-130 | 3 | 20 | |
| Methylene Chloride | ug/kg | 2500 | 2840 | 2730 | 114 | 109 | 70-134 | 4 | 20 | |
| o-Xylene | ug/kg | 2500 | 2600 | 2510 | 104 | 100 | 70-130 | 4 | 20 | |
| Styrene | ug/kg | 2500 | 2520 | 2420 | 101 | 97 | 70-130 | 4 | 20 | |
| Tetrachloroethene | ug/kg | 2500 | 2780 | 2640 | 111 | 105 | 70-130 | 5 | 20 | |
| Toluene | ug/kg | 2500 | 2670 | 2520 | 107 | 101 | 70-130 | 6 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 2500 | 2710 | 2500 | 108 | 100 | 67-130 | 8 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 2500 | 2490 | 2430 | 100 | 97 | 70-130 | 2 | 20 | |
| Trichloroethene | ug/kg | 2500 | 2720 | 2590 | 109 | 104 | 70-130 | 5 | 20 | |
| Vinyl chloride | ug/kg | 2500 | 2400 | 2210 | 96 | 89 | 70-130 | 8 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 105 | 102 | 70-147 | | | |
| Dibromofluoromethane (S) | % | | | | 114 | 108 | 70-150 | | | |
| Toluene-d8 (S) | % | | | | 114 | 107 | 70-155 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

QC Batch: MPRP/14929
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090431001, 1090431002

SAMPLE DUPLICATE: 589924

| Parameter | Units | 1090426002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 3.8 | 3.7 | 5 | 30 | |

SAMPLE DUPLICATE: 590466

| Parameter | Units | 1090353001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 2.3 | 2.2 | 6 | 30 | |



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# QUALIFIERS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/3885

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/3887

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## ANALYTE QUALIFIERS

| | |
|---|---|
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| R1 | RPD value was outside control limits. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090431

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090431002** | **B-6512 WALKER #3 (27')** | EPA 8260 | MSV/3857 | EPA 8260 | MSV/3885 |
| **1090431001** | **B-6512 WALKER #2 (3')** | EPA 8260 | MSV/3886 | EPA 8260 | MSV/3887 |
| **1090431001** | **B-6512 WALKER #2 (3')** | % Moisture | MPRP/14929 | | |
| **1090431002** | **B-6512 WALKER #3 (27')** | % Moisture | MPRP/14929 | | |



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MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4339 1090431

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office: Mpls
Project No.: 04660024 PO No.:
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number — Through —
Laboratory: Pace
Contact Person: Carol Davy
Phone No.: 612-607-1700
Results Due: Stand.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6714 Walker #3 (8') | 3/3/09 | 1417 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | Incorrect project |
| VP-6714 Walker #2 (8') | ↓ | 1540 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | |
| VP-6714 Walker #1 (8') | 3/3/09 | 1025 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | |
| | | | | | | | | | | | | | | |
| B-6512 Walker #2 (3') | 3/3/09 | 1115 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-6512 Walker #3 (27') | 3/3/09 | 1530 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 002 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date above | Time above | Delivery by: Pace | Date 3/4/09 | Time 1400 |
| Received by: Pace | Date 3/4/09 | Time 1400 | Relinquished by: | Date 3/4/09 | Time 1400 |
| Received by: | Date 3/4/09 | Time 1523 | Relinquished by: Pace | Date 3/4/09 | Time 1523 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

**Client Name:** Accom **Project #** 1090431

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

**Tracking #:** _____

Optional:
Proj. Due Date:
Proj. Name:

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ____ No ✓

**Thermometer Used** 80344042 179425 **Type of Ice:** (Wet) Blue None ☐ Samples on ice, cooling process has begun

**Cooler Temperature** 15.2 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/4/09 SL

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☐Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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March 11, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090436001** | **VP-6714 WALKER #3 (8')** | Air | 03/02/09 14:17 | 03/04/09 15:23 |
| **1090436002** | **VP-6714 WALKER #2 (8')** | Air | 03/02/09 15:40 | 03/04/09 15:23 |
| **1090436003** | **VP-6714 WALKER #1 (8')** | Air | 03/03/09 10:25 | 03/04/09 15:23 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1090436001** | **VP-6714 WALKER #3 (8')** | TO-15 | DB1 | 60 |
| **1090436002** | **VP-6714 WALKER #2 (8')** | TO-15 | DB1 | 60 |
| **1090436003** | **VP-6714 WALKER #1 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
3 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8216

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- DUP (Lab ID: 592163)
  - Ethanol
- LCS (Lab ID: 591537)
  - Ethanol
- VP-6714 WALKER #1 (8') (Lab ID: 1090436003)
  - Ethanol
- VP-6714 WALKER #2 (8') (Lab ID: 1090436002)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8216

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 591537)
  - Hexachloro-1,3-butadiene
  - Naphthalene

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 11, 2009

QC Batch: AIR/8216

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 592163)
  - 2-Propanol
  - Cyclohexane
  - Propylene
  - Trichloroethene

**Additional Comments:**

Sample Comments:

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

- VP-6714 WALKER #3 (8') (Lab ID: 1090436001)
- VP-6714 WALKER #2 (8') (Lab ID: 1090436002)

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

- VP-6714 WALKER #1 (8') (Lab ID: 1090436003)

Analyte Comments:

QC Batch: AIR/8216

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 592163)
  - 2-Propanol
  - Trichloroethene
- VP-6714 WALKER #3 (8') (Lab ID: 1090436001)
  - Acetone
  - Propylene

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #3 (8')** **Lab ID: 1090436001** Collected: 03/02/09 14:17 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **113** | ug/m3 | 0.71 | 0.36 | 1.48 | | 03/10/09 19:10 | 67-64-1 | E |
| Benzene | **30.6** | ug/m3 | 0.96 | 0.48 | 1.48 | | 03/10/09 19:10 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:10 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 3.1 | 1.6 | 1.48 | | 03/10/09 19:10 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.2 | 0.58 | 1.48 | | 03/10/09 19:10 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.67 | 0.33 | 1.48 | | 03/10/09 19:10 | 106-99-0 | |
| 2-Butanone (MEK) | **12.9** | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 19:10 | 78-93-3 | |
| Carbon disulfide | **7.4** | ug/m3 | 0.93 | 0.47 | 1.48 | | 03/10/09 19:10 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.9 | 0.96 | 1.48 | | 03/10/09 19:10 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 19:10 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.80 | 0.40 | 1.48 | | 03/10/09 19:10 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 19:10 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.62 | 0.31 | 1.48 | | 03/10/09 19:10 | 74-87-3 | |
| Cyclohexane | **11.9** | ug/m3 | 1.0 | 0.50 | 1.48 | | 03/10/09 19:10 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.5 | 1.3 | 1.48 | | 03/10/09 19:10 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 19:10 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:10 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:10 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:10 | 106-46-7 | |
| Dichlorodifluoromethane | **2.8** | ug/m3 | 1.5 | 0.74 | 1.48 | | 03/10/09 19:10 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:10 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:10 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:10 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:10 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:10 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 19:10 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 19:10 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 19:10 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:10 | 76-14-2 | |
| Ethanol | ND | ug/m3 | 2.8 | 1.3 | 1.48 | | 03/10/09 19:10 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 19:10 | 141-78-6 | |
| Ethylbenzene | **11.3** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 19:10 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:10 | 622-96-8 | |
| n-Heptane | **25.8** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:10 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 3.3 | 1.6 | 1.48 | | 03/10/09 19:10 | 87-68-3 | |
| n-Hexane | **41.1** | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:10 | 110-54-3 | |
| 2-Hexanone | **16.3** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:10 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:10 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:10 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 19:10 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 4.0 | 2.0 | 1.48 | | 03/10/09 19:10 | 91-20-3 | |
| 2-Propanol | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:10 | 67-63-0 | |
| Propylene | **236** | ug/m3 | 0.52 | 0.26 | 1.48 | | 03/10/09 19:10 | 115-07-1 | E |
| Styrene | ND | ug/m3 | 1.3 | 0.64 | 1.48 | | 03/10/09 19:10 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:10 | 79-34-5 | |
| Tetrachloroethene | **246** | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:10 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #3 (8')** **Lab ID: 1090436001** Collected: 03/02/09 14:17 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 19:10 | 109-99-9 | |
| Toluene | **56.5** | ug/m3 | 1.1 | 0.57 | 1.48 | | 03/10/09 19:10 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 19:10 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:10 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:10 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:10 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:10 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 19:10 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **13.8** | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:10 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **3.7** | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:10 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:10 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.77 | 0.38 | 1.48 | | 03/10/09 19:10 | 75-01-4 | |
| m&p-Xylene | **21.2** | ug/m3 | 2.6 | 1.3 | 1.48 | | 03/10/09 19:10 | 1330-20-7 | |
| o-Xylene | **7.7** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 19:10 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #2 (8')** **Lab ID: 1090436002** Collected: 03/02/09 15:40 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **314** | ug/m3 | 5.7 | 2.8 | 11.8 | | 03/11/09 12:13 | 67-64-1 | |
| Benzene | **31.1** | ug/m3 | 0.96 | 0.48 | 1.48 | | 03/10/09 19:39 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:39 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 3.1 | 1.6 | 1.48 | | 03/10/09 19:39 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.2 | 0.58 | 1.48 | | 03/10/09 19:39 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.67 | 0.33 | 1.48 | | 03/10/09 19:39 | 106-99-0 | |
| 2-Butanone (MEK) | ND | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 19:39 | 78-93-3 | |
| Carbon disulfide | **30.6** | ug/m3 | 0.93 | 0.47 | 1.48 | | 03/10/09 19:39 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.9 | 0.96 | 1.48 | | 03/10/09 19:39 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 19:39 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.80 | 0.40 | 1.48 | | 03/10/09 19:39 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 19:39 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.62 | 0.31 | 1.48 | | 03/10/09 19:39 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 1.0 | 0.50 | 1.48 | | 03/10/09 19:39 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.5 | 1.3 | 1.48 | | 03/10/09 19:39 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 19:39 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:39 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:39 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 19:39 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.48 | | 03/10/09 19:39 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:39 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:39 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:39 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:39 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 19:39 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 19:39 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 19:39 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 19:39 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:39 | 76-14-2 | |
| Ethanol | **9.1** | ug/m3 | 2.8 | 1.3 | 1.48 | | 03/10/09 19:39 | 64-17-5 | SS |
| Ethyl acetate | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 19:39 | 141-78-6 | |
| Ethylbenzene | **13.3** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 19:39 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:39 | 622-96-8 | |
| n-Heptane | **38.3** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:39 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 3.3 | 1.6 | 1.48 | | 03/10/09 19:39 | 87-68-3 | |
| n-Hexane | **62.6** | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:39 | 110-54-3 | |
| 2-Hexanone | **22.7** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:39 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:39 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 19:39 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 19:39 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 4.0 | 2.0 | 1.48 | | 03/10/09 19:39 | 91-20-3 | |
| 2-Propanol | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:39 | 67-63-0 | |
| Propylene | **318** | ug/m3 | 4.1 | 2.1 | 11.8 | | 03/11/09 12:13 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.3 | 0.64 | 1.48 | | 03/10/09 19:39 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 19:39 | 79-34-5 | |
| Tetrachloroethene | **1110** | ug/m3 | 16.5 | 8.3 | 11.8 | | 03/11/09 12:13 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #2 (8')** **Lab ID: 1090436002** Collected: 03/02/09 15:40 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 19:39 | 109-99-9 | |
| Toluene | **62.1** | ug/m3 | 1.1 | 0.57 | 1.48 | | 03/10/09 19:39 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 19:39 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:39 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:39 | 79-00-5 | |
| Trichloroethene | **31.1** | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:39 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 19:39 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 19:39 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **11.2** | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:39 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 19:39 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 19:39 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.77 | 0.38 | 1.48 | | 03/10/09 19:39 | 75-01-4 | |
| m&p-Xylene | **21.3** | ug/m3 | 2.6 | 1.3 | 1.48 | | 03/10/09 19:39 | 1330-20-7 | |
| o-Xylene | **7.5** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 19:39 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #1 (8')** **Lab ID: 1090436003** Collected: 03/03/09 10:25 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **24.0** | ug/m3 | 0.71 | 0.36 | 1.48 | | 03/10/09 20:09 | 67-64-1 | |
| Benzene | **6.5** | ug/m3 | 0.96 | 0.48 | 1.48 | | 03/10/09 20:09 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 20:09 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 3.1 | 1.6 | 1.48 | | 03/10/09 20:09 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.2 | 0.58 | 1.48 | | 03/10/09 20:09 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.67 | 0.33 | 1.48 | | 03/10/09 20:09 | 106-99-0 | |
| 2-Butanone (MEK) | ND | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 20:09 | 78-93-3 | |
| Carbon disulfide | **8.0** | ug/m3 | 0.93 | 0.47 | 1.48 | | 03/10/09 20:09 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.9 | 0.96 | 1.48 | | 03/10/09 20:09 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 20:09 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.80 | 0.40 | 1.48 | | 03/10/09 20:09 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 20:09 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.62 | 0.31 | 1.48 | | 03/10/09 20:09 | 74-87-3 | |
| Cyclohexane | **4.2** | ug/m3 | 1.0 | 0.50 | 1.48 | | 03/10/09 20:09 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.5 | 1.3 | 1.48 | | 03/10/09 20:09 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 20:09 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 20:09 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 20:09 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.8 | 0.89 | 1.48 | | 03/10/09 20:09 | 106-46-7 | |
| Dichlorodifluoromethane | **4.1** | ug/m3 | 1.5 | 0.74 | 1.48 | | 03/10/09 20:09 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 20:09 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 20:09 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 20:09 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 20:09 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.2 | 0.60 | 1.48 | | 03/10/09 20:09 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.4 | 0.70 | 1.48 | | 03/10/09 20:09 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 20:09 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.4 | 0.68 | 1.48 | | 03/10/09 20:09 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 20:09 | 76-14-2 | |
| Ethanol | **10.9** | ug/m3 | 2.8 | 1.3 | 1.48 | | 03/10/09 20:09 | 64-17-5 | SS |
| Ethyl acetate | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 20:09 | 141-78-6 | |
| Ethylbenzene | **7.8** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 20:09 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 20:09 | 622-96-8 | |
| n-Heptane | **8.3** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 20:09 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 3.3 | 1.6 | 1.48 | | 03/10/09 20:09 | 87-68-3 | |
| n-Hexane | **11.4** | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 20:09 | 110-54-3 | |
| 2-Hexanone | **8.2** | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 20:09 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 20:09 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.2 | 0.61 | 1.48 | | 03/10/09 20:09 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.1 | 0.54 | 1.48 | | 03/10/09 20:09 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 4.0 | 2.0 | 1.48 | | 03/10/09 20:09 | 91-20-3 | |
| 2-Propanol | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 20:09 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.52 | 0.26 | 1.48 | | 03/10/09 20:09 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.3 | 0.64 | 1.48 | | 03/10/09 20:09 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 20:09 | 79-34-5 | |
| Tetrachloroethene | **4.1** | ug/m3 | 2.1 | 1.0 | 1.48 | | 03/10/09 20:09 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

**Sample: VP-6714 WALKER #1 (8')** **Lab ID: 1090436003** Collected: 03/03/09 10:25 Received: 03/04/09 15:23 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.89 | 0.44 | 1.48 | | 03/10/09 20:09 | 109-99-9 | |
| Toluene | **39.5** | ug/m3 | 1.1 | 0.57 | 1.48 | | 03/10/09 20:09 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.5 | 0.73 | 1.48 | | 03/10/09 20:09 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 20:09 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 20:09 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 20:09 | 79-01-6 | |
| Trichlorofluoromethane | **1.8** | ug/m3 | 1.6 | 0.81 | 1.48 | | 03/10/09 20:09 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.4 | 1.2 | 1.48 | | 03/10/09 20:09 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **10.8** | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 20:09 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.7 | 1.8 | 1.48 | | 03/10/09 20:09 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 1.1 | 0.53 | 1.48 | | 03/10/09 20:09 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.77 | 0.38 | 1.48 | | 03/10/09 20:09 | 75-01-4 | |
| m&p-Xylene | **17.7** | ug/m3 | 2.6 | 1.3 | 1.48 | | 03/10/09 20:09 | 1330-20-7 | |
| o-Xylene | **5.9** | ug/m3 | 1.3 | 0.65 | 1.48 | | 03/10/09 20:09 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

QC Batch: AIR/8216 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1090436001, 1090436002, 1090436003

METHOD BLANK: 591536 Matrix: Air
Associated Lab Samples: 1090436001, 1090436002, 1090436003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 03/10/09 14:41 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 03/10/09 14:41 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 03/10/09 14:41 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 03/10/09 14:41 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 03/10/09 14:41 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 03/10/09 14:41 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 03/10/09 14:41 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 03/10/09 14:41 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| Acetone | ug/m3 | ND | 0.48 | 03/10/09 14:41 | |
| Benzene | ug/m3 | ND | 0.65 | 03/10/09 14:41 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Bromoform | ug/m3 | ND | 2.1 | 03/10/09 14:41 | |
| Bromomethane | ug/m3 | ND | 0.79 | 03/10/09 14:41 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 03/10/09 14:41 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 03/10/09 14:41 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 03/10/09 14:41 | |
| Chloroethane | ug/m3 | ND | 0.54 | 03/10/09 14:41 | |
| Chloroform | ug/m3 | ND | 0.99 | 03/10/09 14:41 | |
| Chloromethane | ug/m3 | ND | 0.42 | 03/10/09 14:41 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/10/09 14:41 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 03/10/09 14:41 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 03/10/09 14:41 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 03/10/09 14:41 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Ethanol | ug/m3 | ND | 1.9 | 03/10/09 14:41 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 03/10/09 14:41 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 03/10/09 14:41 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 03/10/09 14:41 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 03/10/09 14:41 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

METHOD BLANK: 591536 Matrix: Air

Associated Lab Samples: 1090436001, 1090436002, 1090436003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 03/10/09 14:41 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 03/10/09 14:41 | |
| n-Heptane | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| n-Hexane | ug/m3 | ND | 0.72 | 03/10/09 14:41 | |
| Naphthalene | ug/m3 | ND | 2.7 | 03/10/09 14:41 | |
| o-Xylene | ug/m3 | ND | 0.88 | 03/10/09 14:41 | |
| Propylene | ug/m3 | ND | 0.35 | 03/10/09 14:41 | |
| Styrene | ug/m3 | ND | 0.87 | 03/10/09 14:41 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 03/10/09 14:41 | |
| Toluene | ug/m3 | ND | 0.77 | 03/10/09 14:41 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/10/09 14:41 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 03/10/09 14:41 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 03/10/09 14:41 | |

LABORATORY CONTROL SAMPLE: 591537

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 56.8 | 99 | 60-134 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 70.4 | 99 | 55-141 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 51.3 | 92 | 64-129 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 60.3 | 79 | 55-137 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 35.7 | 87 | 59-136 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 39.7 | 99 | 60-137 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 106 | 142 | 50-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 53.4 | 108 | 63-137 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 78.2 | 96 | 61-136 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 67.8 | 109 | 60-139 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 40.8 | 91 | 56-141 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 51.6 | 102 | 57-131 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.7 | 108 | 61-134 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 22.1 | 97 | 53-140 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 66.6 | 104 | 59-136 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 67.1 | 107 | 59-130 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 28.1 | 91 | 54-133 | |
| 2-Hexanone | ug/m3 | 42.1 | 42.4 | 101 | 54-139 | |
| 2-Propanol | ug/m3 | 23.8 | 18.9 | 80 | 50-150 | |
| 4-Ethyltoluene | ug/m3 | 50 | 44.2 | 88 | 61-138 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 42.2 | 99 | 53-139 | |
| Acetone | ug/m3 | 24.2 | 17.5 | 72 | 50-139 | |
| Benzene | ug/m3 | 32.8 | 31.1 | 95 | 64-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 65.3 | 96 | 61-131 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

LABORATORY CONTROL SAMPLE: 591537

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 99.6 | 93 | 66-138 | |
| Bromomethane | ug/m3 | 39.9 | 38.3 | 96 | 55-135 | |
| Carbon disulfide | ug/m3 | 32.6 | 36.4 | 112 | 50-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 59.7 | 92 | 58-135 | |
| Chlorobenzene | ug/m3 | 46.4 | 47.5 | 102 | 62-139 | |
| Chloroethane | ug/m3 | 26.6 | 26.2 | 99 | 56-140 | |
| Chloroform | ug/m3 | 48.5 | 48.8 | 101 | 50-150 | |
| Chloromethane | ug/m3 | 21 | 19.9 | 95 | 56-144 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 38.8 | 93 | 62-135 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 55.2 | 114 | 64-133 | |
| Cyclohexane | ug/m3 | 35.7 | 39.1 | 109 | 54-139 | |
| Dibromochloromethane | ug/m3 | 91 | 85.8 | 94 | 50-150 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 47.8 | 97 | 60-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 60.1 | 85 | 59-130 | |
| Ethanol | ug/m3 | 19.2 | 39.4 | 205 | 50-150 | SS |
| Ethyl acetate | ug/m3 | 37.4 | 43.6 | 117 | 60-132 | |
| Ethylbenzene | ug/m3 | 48.6 | 49.1 | 101 | 65-140 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 168 | 158 | 50-150 | L3 |
| m&p-Xylene | ug/m3 | 92.7 | 92.0 | 99 | 60-132 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 37.6 | 103 | 50-150 | |
| Methylene Chloride | ug/m3 | 34.6 | 29.1 | 84 | 56-138 | |
| n-Heptane | ug/m3 | 42.9 | 37.7 | 88 | 62-135 | |
| n-Hexane | ug/m3 | 39.1 | 40.3 | 103 | 62-134 | |
| Naphthalene | ug/m3 | 50.6 | 75.0 | 148 | 70-130 | L3 |
| o-Xylene | ug/m3 | 45.5 | 45.4 | 100 | 64-132 | |
| Propylene | ug/m3 | 18.6 | 18.8 | 102 | 56-125 | |
| Styrene | ug/m3 | 43.3 | 42.2 | 98 | 69-134 | |
| Tetrachloroethene | ug/m3 | 71.7 | 69.2 | 96 | 60-137 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 15.4 | 68 | 52-139 | |
| Toluene | ug/m3 | 39.9 | 37.4 | 94 | 69-130 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 41.4 | 99 | 50-150 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 45.3 | 93 | 70-142 | |
| Trichloroethene | ug/m3 | 55.2 | 61.2 | 111 | 60-134 | |
| Trichlorofluoromethane | ug/m3 | 56 | 54.3 | 97 | 56-141 | |
| Vinyl acetate | ug/m3 | 36.9 | 36.2 | 98 | 61-142 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.5 | 95 | 66-132 | |

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 13.9 | 11.1 | 22 | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 26.9 | 22.7 | 17 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 36.2 | 30.8 | 16 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | ND | ND | | 25 | |
| 2-Hexanone | ug/m3 | 9.1 | 7.1 | 24 | 25 | |
| 2-Propanol | ug/m3 | 527 | 221 | 82 | 25 | D6,E |
| 4-Ethyltoluene | ug/m3 | 7.8 | 7.8 | .8 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 57.6 | 47.4 | 19 | 25 | |
| Benzene | ug/m3 | 8.8 | 7.0 | 23 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 4.8 | 3.9 | 21 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 10.5 | 8.3 | 24 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 6.1 | 4.7 | 26 | 25 | D6 |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 6.0 | 4.9 | 20 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 31.2 | 25.9 | 19 | 25 | SS |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 10.2 | 8.1 | 23 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 21.0 | 16.9 | 22 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 11.8 | 9.9 | 18 | 25 | |
| n-Hexane | ug/m3 | 15.1 | 12.2 | 21 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 6.6 | 5.3 | 22 | 25 | |
| Propylene | ug/m3 | 73.1 | 40.8 | 57 | 25 | D6 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 6.2 | 4.8 | 25 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 28.3 | 23.1 | 20 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 918 | 463 | 66 | 25 | D6,E |
| Trichlorofluoromethane | ug/m3 | 1.9 | 1.5 | 22 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1090436001

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1090436002

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1090436003

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| D6 | The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| SS | This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST LOUIS PARK INVEST.
Pace Project No.: 1090436

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090436001** | **VP-6714 WALKER #3 (8')** | TO-15 | AIR/8216 | | |
| **1090436002** | **VP-6714 WALKER #2 (8')** | TO-15 | AIR/8216 | | |
| **1090436003** | **VP-6714 WALKER #1 (8')** | TO-15 | AIR/8216 | | |



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Data File: \\192.168.10.12\chem\10air7.i\031009.b\06920.D
Report Date: 11-Mar-2009 09:49

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 2
Lab Smp Id: 1090436001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-MAR-2009 19:10

Client SDG: 031009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.703 | 288 | J |
| 2. | 74-99-7 | 1-Propyne | 3.932 | 11.9 | NJ |
| 3. | | Unknown | 4.034 | 17.6 | J |
| 4. | | Unknown | 4.299 | 10.0 | J |
| 5. | 78-78-4 | Butane, 2-methyl- | 4.601 | 20.5 | NJ |
| 6. | | Unknown | 4.886 | 7.96 | J |
| 7. | 109-68-2 | 2-Pentene | 5.008 | 8.02 | NJ |
| 8. | 142-29-0 | Cyclopentene | 5.460 | 6.10 | NJ |
| 9. | 592-76-7 | 1-Heptene | 7.516 | 8.99 | NJ |
| 10. | | Unknown | 9.586 | 6.19 | J |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06920.D
Report Date: 11-Mar-2009 09:49

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031009.b\06920.D
Lab Smp Id: 1090436001
Inj Date : 10-MAR-2009 19:10
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 2
Misc Info : 8216
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031009.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 08:36 apeterson Quant Type: ISTD
Cal Date : 10-MAR-2009 10:44 Cal File: 06906.D
Als bottle: 20
Dil Factor: 1.48000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.480 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

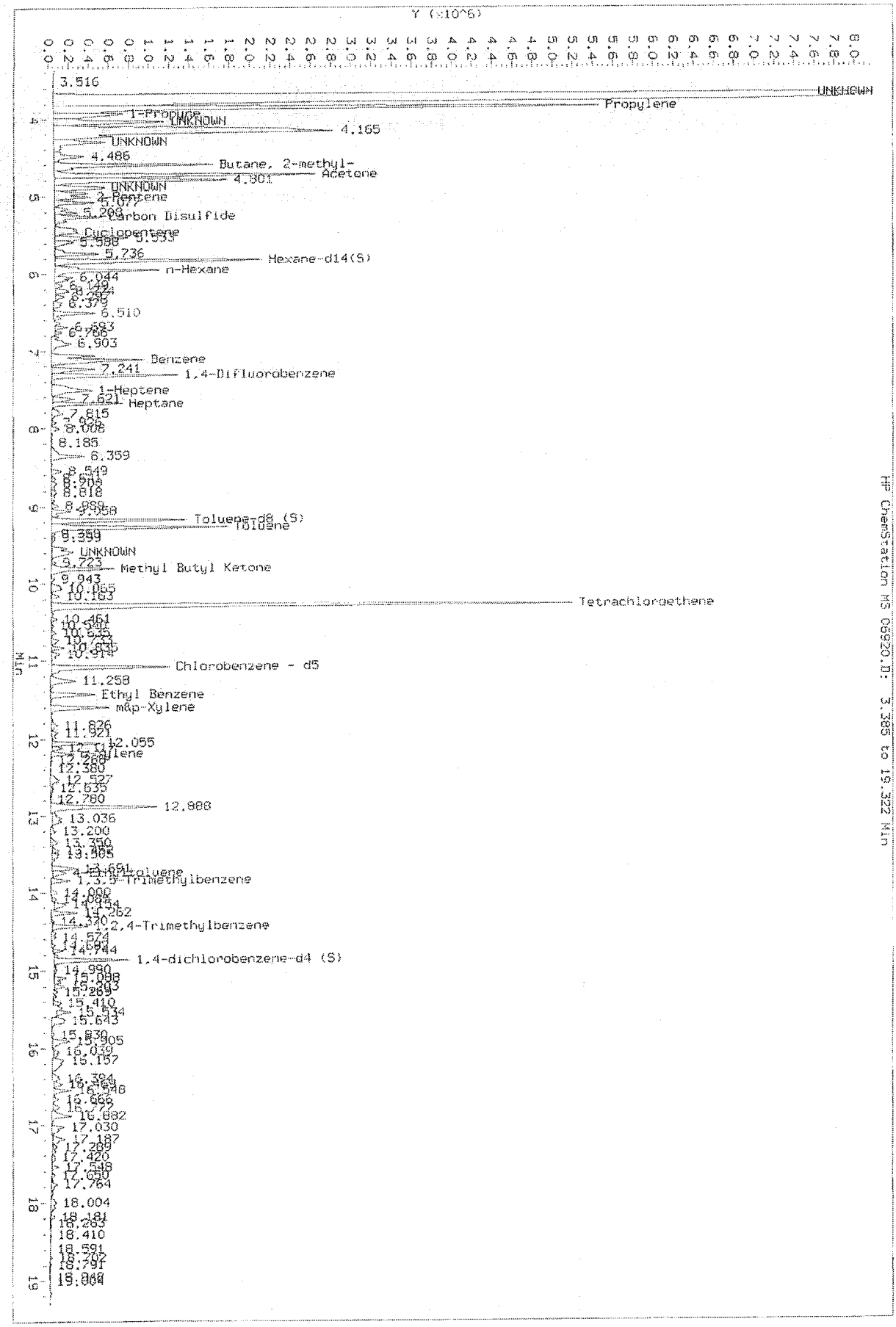
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.323 | 2641581 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.081 | 2703590 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.703 | 51323034 | 194.289077 | 288 | 0 | | 0 | 35 |
| 1-Propyne | | | | CAS #: 74-99-7 | | | |
| 3.932 | 2120376 | 8.02691839 | 11.9 | 90 | NBS75K.1 | 24 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.034 | 3150372 | 11.9260832 | 17.6 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.299 | 1793410 | 6.78915293 | 10.0 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.601 | 3654136 | 13.8331412 | 20.5 | 91 | NBS75K.1 | 62518 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06920.D
Report Date: 11-Mar-2009 09:49

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 4.886 | 1419874 | 5.37509323 | 7.96 | 0 | | 0 | 35 |
| 2-Pentene | | | | CAS #: | 109-68-2 | | |
| 5.008 | 1431500 | 5.41910177 | 8.02 | 90 | NBS75K.1 | 231 | 35 |
| Cyclopentene | | | | CAS #: | 142-29-0 | | |
| 5.460 | 1088366 | 4.12013008 | 6.10 | 86 | NBS75K.1 | 62412 | 35 |
| 1-Heptene | | | | CAS #: | 592-76-7 | | |
| 7.516 | 1603986 | 6.07206858 | 8.99 | 97 | NBS75K.1 | 63242 | 35 |
| Unknown | | | | CAS #: | | | |
| 9.586 | 1130520 | 4.18155030 | 6.19 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031609.b\05920.D
Injection Date: 10-MAR-2009 19:10
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 05920.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06921.D
Report Date: 11-Mar-2009 09:43

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 3
Lab Smp Id: 1090426002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-MAR-2009 19:39

Client SDG: 031009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.709 | 74.1 | J |
| 2. | | Unknown | 3.781 | 249 | J |
| 3. | | Unknown | 4.057 | 27.3 | J |
| 4. | | Unknown | 4.323 | 17.8 | J |
| 5. | 78-78-4 | Butane, 2-methyl- | 4.624 | 30.6 | NJ |
| 6. | 78-79-5 | 1,3-Butadiene, 2-methyl- | 4.919 | 10.6 | NJ |
| 7. | | Unknown | 5.460 | 9.48 | J |
| 8. | 592-76-7 | 1-Heptene | 7.533 | 14.8 | NJ |
| 9. | 120-92-3 | Cyclopentanone | 9.760 | 10.6 | NJ |
| 10. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.094 | 29.3 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06921.D
Report Date: 11-Mar-2009 09:43

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031009.b\06921.D
Lab Smp Id: 1090426002
Inj Date : 10-MAR-2009 19:39
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 3
Misc Info : 8216
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031009.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 08:36 apeterson Quant Type: ISTD
Cal Date : 10-MAR-2009 10:44 Cal File: 06906.D
Als bottle: 21
Dil Factor: 1.48000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.480 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

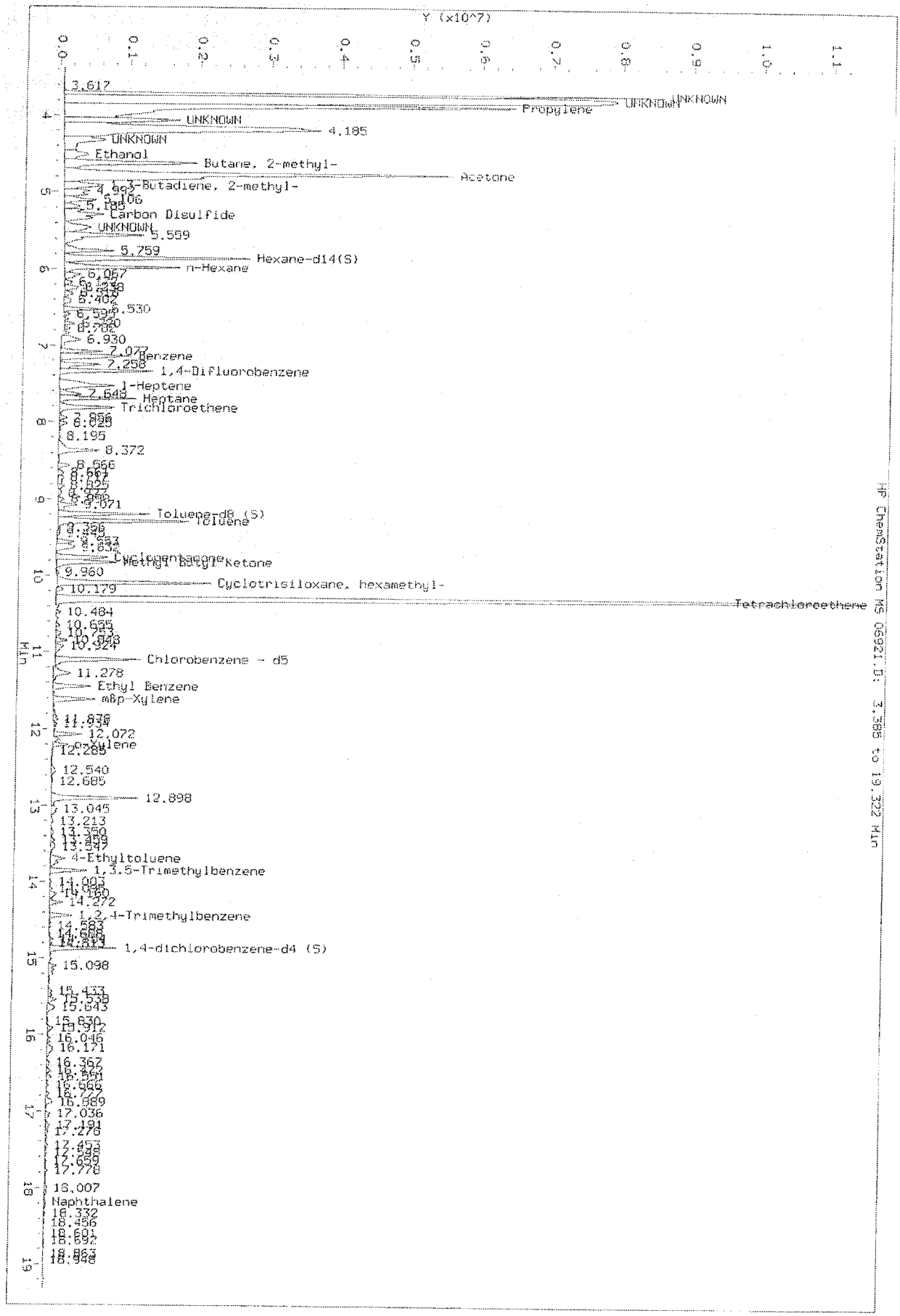
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.340 | 2891017 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.101 | 2875748 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.709 | 14470326 | 50.0527104 | 74.1 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 3.781 | 48713189 | 168.498431 | 249 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.057 | 5336194 | 18.4578402 | 27.3 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.323 | 3476485 | 12.0251268 | 17.8 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.624 | 5973578 | 20.6625447 | 30.6 | 91 | NBS75K.1 | 62517 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06921.D
Report Date: 11-Mar-2009 09:43

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| 1,3-Butadiene, 2-methyl- | | | | CAS #: 78-79-5 | | | |
| 4.919 | 2073799 | 7.17324983 | 10.6 | 94 | NBS75K.1 | 62407 | 35 |
| Unknown | | | | CAS #: | | | |
| 5.460 | 1852662 | 6.40833881 | 9.48 | 0 | | 0 | 35 |
| 1-Heptene | | | | CAS #: 592-76-7 | | | |
| 7.533 | 2882702 | 9.97123612 | 14.8 | 95 | NBS75K.1 | 63242 | 35 |
| Cyclopentanone | | | | CAS #: 120-92-3 | | | |
| 9.760 | 2063291 | 7.17479598 | 10.6 | 87 | NBS75K.1 | 62723 | 50 |
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.094 | 5694145 | 19.8005678 | 29.3 | 91 | NBS75K.1 | 70586 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06921.D
Injection Date: 10-MAR-2009 19:39
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 06921.D: 3.585 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06922.D
Report Date: 11-Mar-2009 09:44

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 4
Lab Smp Id: 1080436003
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-MAR-2009 20:09

Client SDG: 031009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 4.188 | 38.5 | J |
| 2. | | Unknown | 11.271 | 2.93 | J |
| 3. | 111-84-2 | Nonane | 12.065 | 3.55 | NJ |
| 4. | 1073-06-9 | Benzene, 1-bromo-3-fluoro- | 12.894 | 14.8 | NJ |
| 5. | | Unknown | 13.859 | 2.88 | J |
| 6. | | Unknown | 15.538 | 3.15 | J |
| 7. | 1758-88-9 | Benzene, 2-ethyl-1,4-dimeth | 15.652 | 3.15 | NJ |
| 8. | 1120-21-4 | Undecane | 16.174 | 3.70 | NJ |
| 9. | 2958-76-1 | Naphthalene, decahydro-2-me | 16.892 | 3.63 | NJ |
| 10. | | Unknown | 17.194 | 3.21 | J |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06922.D
Report Date: 11-Mar-2009 09:44

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031009.b\06922.D
Lab Smp Id: 1080436003
Inj Date : 10-MAR-2009 20:09
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 4
Misc Info : 8216
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031009.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 08:36 apeterson Quant Type: ISTD
Cal Date : 10-MAR-2009 10:44 Cal File: 06906.D
Als bottle: 22
Dil Factor: 1.48000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.480 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

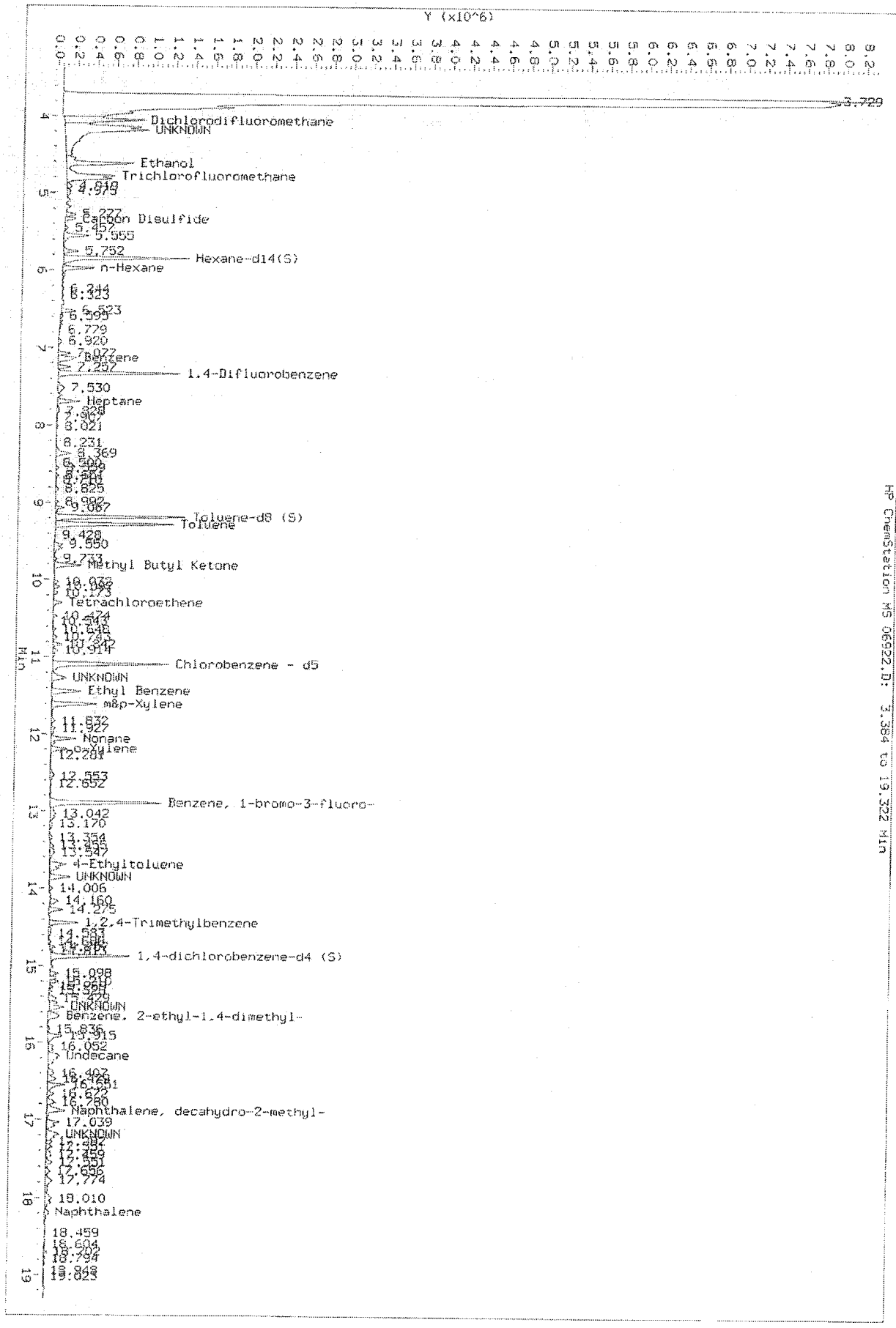
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.336 | 2466084 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.091 | 2691997 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | CONCENTRATIONS FINAL( ppbv) | QUAL | QUANT LIBRARY | QUANT LIB ENTRY | QUANT CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 4.188 | 6419064 | 26.0293769 | 38.5 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 11.271 | 533203 | 1.98069790 | 2.93 | 0 | | 0 | 50 |
| Nonane | | | | CAS #: 111-84-2 | | | |
| 12.065 | 646595 | 2.40191424 | 3.55 | 81 | NBS75K.1 | 65145 | 50 |
| Benzene, 1-bromo-3-fluoro- | | | | CAS #: 1073-06-9 | | | |
| 12.894 | 2701488 | 10.0352571 | 14.8 | 95 | NBS75K.1 | 16034 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.859 | 523176 | 1.94344834 | 2.88 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06922.D
Report Date: 11-Mar-2009 09:44

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | CONCENTRATIONS FINAL( ppbv) | QUAL | QUANT LIBRARY | QUANT LIB ENTRY | QUANT CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.538 | 572758 | 2.12763100 | 3.15 | 0 | | 0 | 50 |
| Benzene, 2-ethyl-1,4-dimethyl- | | | | CAS #: 1758-88-9 | | | |
| 15.652 | 572485 | 2.12661642 | 3.15 | 94 | NBS75K.1 | 65570 | 50 |
| Undecane | | | | CAS #: 1120-21-4 | | | |
| 16.174 | 672384 | 2.49771617 | 3.70 | 70 | NBS75K.1 | 67317 | 50 |
| Naphthalene, decahydro-2-methyl- | | | | CAS #: 2958-76-1 | | | |
| 16.892 | 660968 | 2.45530834 | 3.63 | 91 | NBS75K.1 | 67009 | 50 |
| Unknown | | | | CAS #: | | | |
| 17.194 | 583150 | 2.16623448 | 3.21 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air2.i\031009.b\06922.D
Injection Date: 10-MAR-2009 20:09
Instrument: 10air2.i
Client Sample ID:




HP ChemStation MS 06922.D: 3.384 to 19.322 Min

MPCA Project

1090436

# Chain of Custody Record

№ 4339

STS | AECOM

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office: Mpls
Project No.: 04660024 PO No.:
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number — Through —
Laboratory: Pace
Contact Person: Carol Davy
Phone No.: 612-607-1700
Results Due: Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6714 Walker #3 (8') | 3/4/09 | 1417 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 001 |
| VP-6714 Walker #2 (8') | ↓ | 1540 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 002 |
| VP-6714 Walker #1 (8') | 3/3/09 | 1025 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 003 |
| ~~B-65D Walker #2 (3')~~ | ~~3/3/09~~ | ~~1115~~ | ~~X~~ | | ~~4~~ | ~~Soil~~ | ~~5~~ | ~~1~~ | | | | | ~~low level VOC~~ | on separate report |
| ~~B-65D Walker #3 (27')~~ | ~~3/3/09~~ | ~~1130~~ | ~~X~~ | | ~~4~~ | ~~Soil~~ | ~~5~~ | ~~1~~ | | | | | ~~low level VOC~~ | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date above | Time above | Delivery by: Pace | Date 3/4/09 | Time [illegible] |
| Received by: [illegible] | Date 3/4/09 | Time [illegible] | Relinquished by: [illegible] | Date 3/4/09 | Time 1700 |
| Received by: [illegible] pace | Date 3/4/09 | Time 1523 | Relinquished by: [illegible] pace | Date 3/4/09 | Time 1523 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: AeCom

Project # 1090436

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ____ No ✓

Thermometer Used 80344042, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature ATR Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/4/09 SH

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: CANS | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** Dave **Date:** 3-4-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07029.D
Report Date: 12-Mar-2009 16:15

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1090528001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 12-MAR-2009 00:22

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.699 | 266 | J |
| 2. | | Unknown | 4.024 | 8.74 | J |
| 3. | | Unknown | 4.119 | 11.2 | J |
| 4. | 78-78-4 | Butane, 2-methyl- | 4.588 | 9.19 | NJ |
| 5. | 108-87-2 | Cyclohexane, methyl- | 8.346 | 8.85 | NJ |
| 6. | 17302-37-3 | Decane, 2,2-dimethyl- | 14.796 | 9.49 | NJ |
| 7. | 3891-98-3 | Dodecane, 2,6,10-trimethyl- | 15.167 | 20.2 | NJ |
| 8. | | Unknown | 15.547 | 14.5 | J |
| 9. | | Unknown | 15.603 | 16.1 | J |
| 10. | | Unknown | 15.898 | 8.23 | J |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07029.D
Report Date: 12-Mar-2009 16:15

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07029.D
Lab Smp Id: 1090528001
Inj Date : 12-MAR-2009 00:22
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 1
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 29
Dil Factor: 1.25000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.250 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

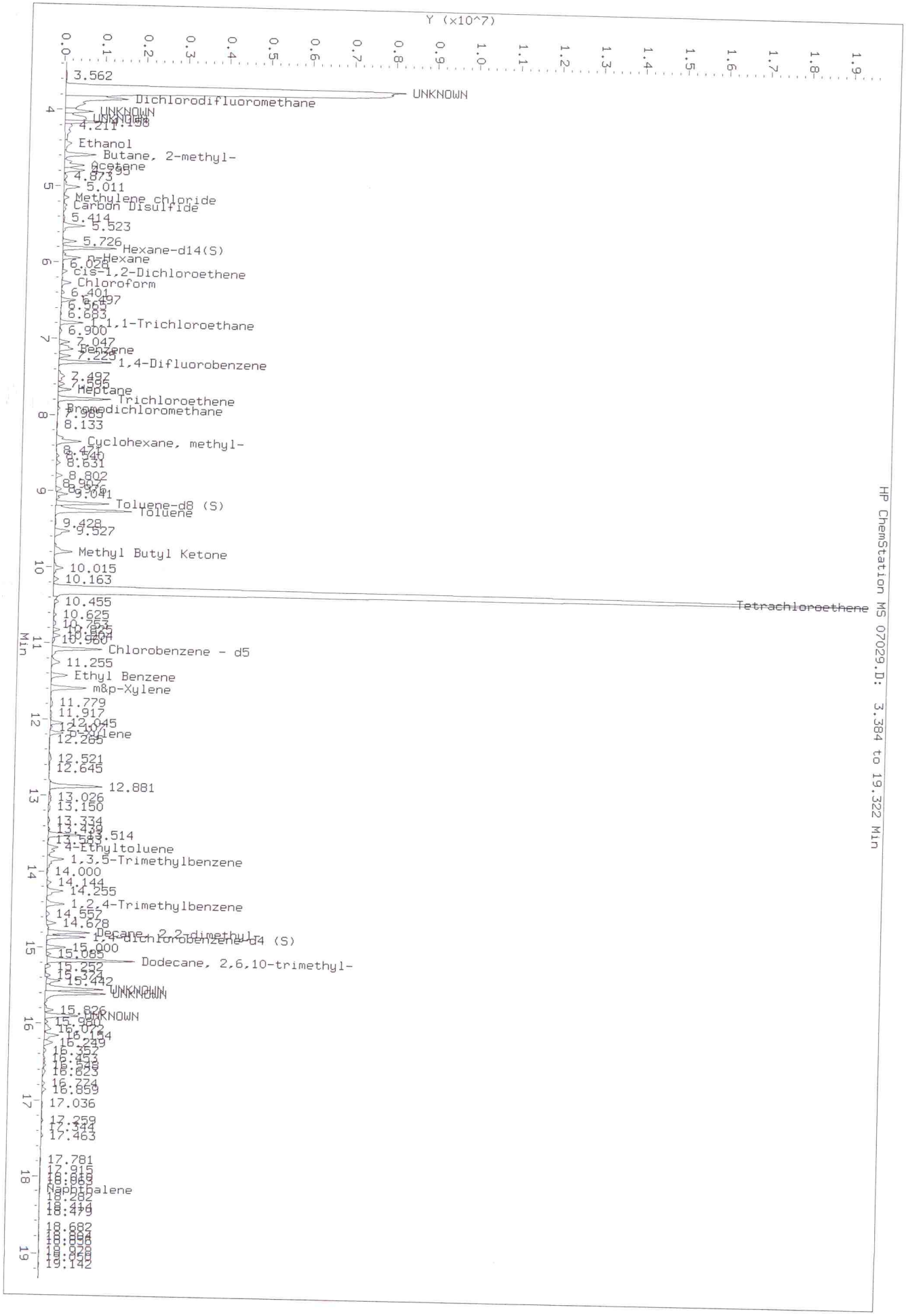
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.307 | 2426914 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.078 | 2793939 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.699 | 51740209 | 213.193343 | 266 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.024 | 1696350 | 6.98973722 | 8.74 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.119 | 2173410 | 8.95544583 | 11.2 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.588 | 1784091 | 7.35126983 | 9.19 | 91 | NBS75K.l | 62518 | 35 |
| Cyclohexane, methyl- | | | | CAS #: 108-87-2 | | | |
| 8.346 | 1718197 | 7.07975875 | 8.85 | 96 | NBS75K.l | 63236 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07029.D
Report Date: 12-Mar-2009 16:15

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Decane, 2,2-dimethyl- | | | | CAS #: 17302-37-3 | | | |
| 14.796 | 2121630 | 7.59368723 | 9.49 | 83 | NBS75K.l | 15358 | 50 |
| Dodecane, 2,6,10-trimethyl- | | | | CAS #: 3891-98-3 | | | |
| 15.167 | 4517675 | 16.1695534 | 20.2 | 72 | NBS75K.l | 70270 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.547 | 3250749 | 11.6350013 | 14.5 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.603 | 3603213 | 12.8965320 | 16.1 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.898 | 1840119 | 6.58611059 | 8.23 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07029.D
Injection Date: 12-MAR-2009 00:22
Instrument: 10air7.i
Client Sample ID:



Data File: \\192.168.10.12\chem\10air7.i\031309.b\07218.D
Report Date: 16-Mar-2009 11:02

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 0
Lab Smp Id: 1090528002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 13-MAR-2009 19:56

Client SDG: 031309.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 3.722 | 42600 | J |
| 2. | Unknown | 6.375 | 1320 | J |

Data File: \\192.168.10.12\chem\10air7.i\031309.b\07218.D
Report Date: 16-Mar-2009 11:02

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031309.b\07218.D
Lab Smp Id: 1090528002
Inj Date : 13-MAR-2009 19:56
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 0
Misc Info : 8243
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031309.b\LOWTO15_072.m
Meth Date : 13-Mar-2009 16:09 dbrusky Quant Type: ISTD
Cal Date : 13-MAR-2009 14:14 Cal File: 07208.D
Als bottle: 18
Dil Factor: 800.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

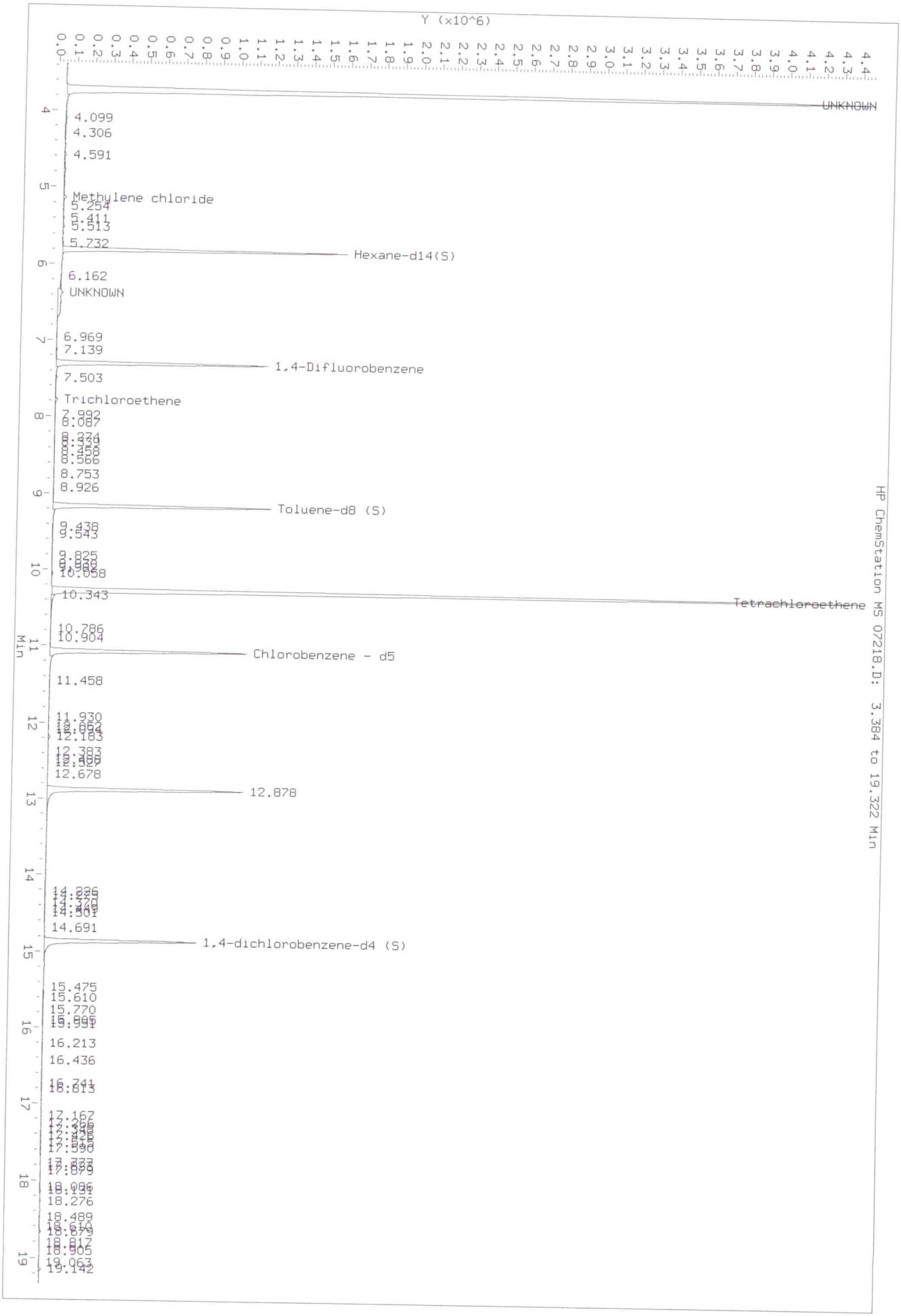
Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 800.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.303 | 2285886 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.722 | 12172066 | 53.2487703 | 42600 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 6.375 | 376248 | 1.64596029 | 1320 | 0 | | 0 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\031309.b\07218.D
Injection Date: 13-MAR-2009 19:56
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07218.D: 3.384 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07032.D
Report Date: 12-Mar-2009 16:21

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 4
Lab Smp Id: 1090528003
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 12-MAR-2009 01:58

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 4.152 | 15.4 | J |
| 2. | 96-14-0 | Pentane, 3-methyl- | 5.723 | 19.6 | NJ |
| 3. | 4806-61-5 | Cyclobutane, ethyl- | 6.497 | 22.4 | NJ |
| 4. | 594-82-1 | Butane, 2,2,3,3-tetramethyl | 7.503 | 41.6 | NJ |
| 5. | 127-18-4 | Tetrachloroethylene | 10.586 | 124 | NJ |
| 6. | 1073-06-9 | Benzene, 1-bromo-3-fluoro- | 12.940 | 11.1 | NJ |
| 7. | 17302-37-3 | Decane, 2,2-dimethyl- | 14.823 | 13.1 | NJ |
| 8. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.190 | 24.9 | NJ |
| 9. | | Unknown | 15.567 | 17.4 | J |
| 10. | | Unknown | 15.623 | 15.1 | J |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07032.D
Report Date: 12-Mar-2009 16:21

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07032.D
Lab Smp Id: 1090528003
Inj Date : 12-MAR-2009 01:58
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 4
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 32
Dil Factor: 1.25000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.250 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

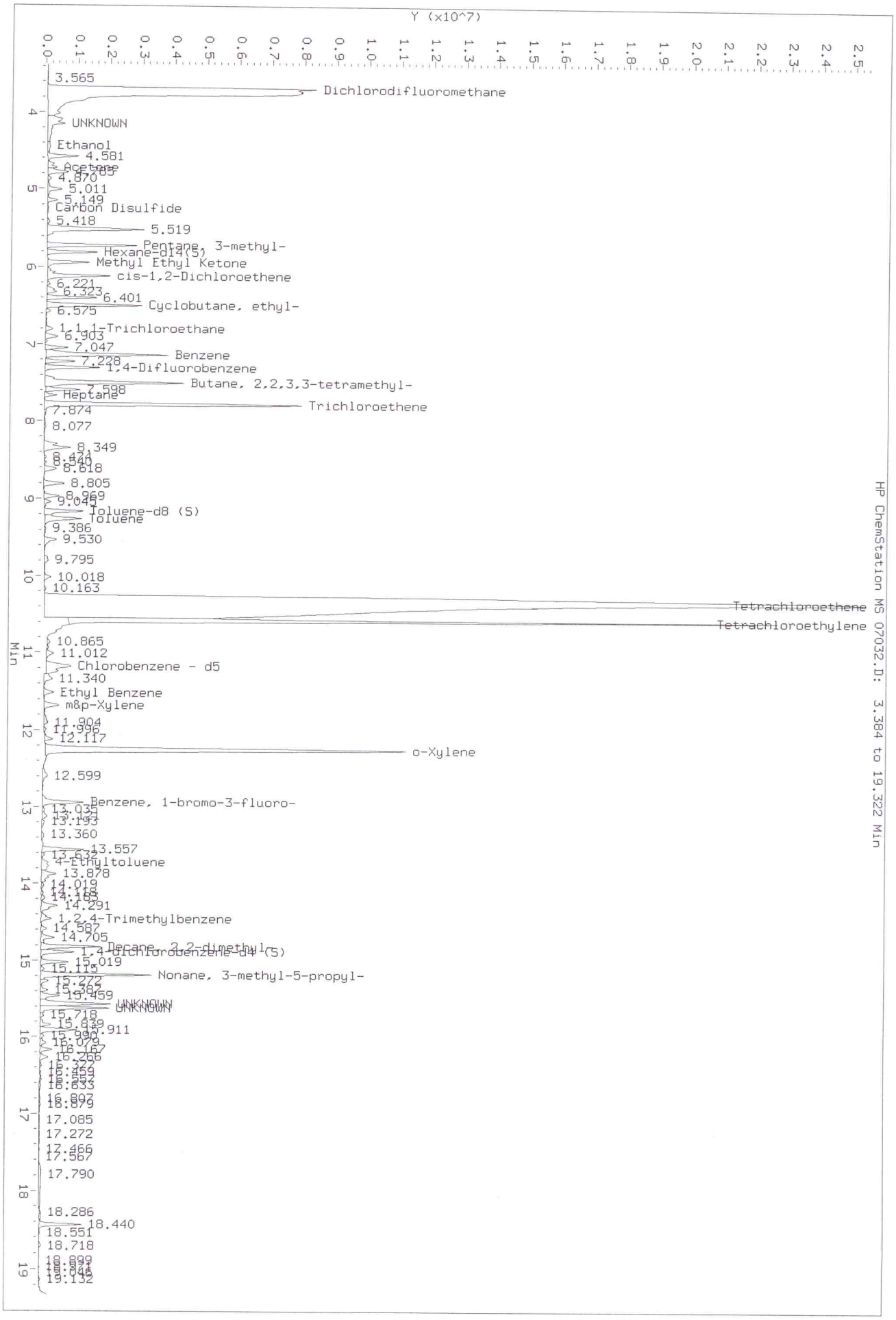
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.306 | 3343891 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.176 | 3844866 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 4.152 | 4111810 | 12.2964818 | 15.4 | 0 | | 0 | 35 |
| Pentane, 3-methyl- | | | | CAS #: 96-14-0 | | | |
| 5.723 | 5244284 | 15.6831761 | 19.6 | 91 | NBS75K.l | 62867 | 35 |
| Cyclobutane, ethyl- | | | | CAS #: 4806-61-5 | | | |
| 6.497 | 6006136 | 17.9615150 | 22.4 | 72 | NBS75K.l | 604 | 35 |
| Butane, 2,2,3,3-tetramethyl- | | | | CAS #: 594-82-1 | | | |
| 7.503 | 11118606 | 33.2504974 | 41.6 | 78 | NBS75K.l | 3090 | 35 |
| Tetrachloroethylene | | | | CAS #: 127-18-4 | | | |
| 10.586 | 38033297 | 98.9196885 | 124 | 99 | NBS75K.l | 13222 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07032.D
Report Date: 12-Mar-2009 16:21

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Benzene, 1-bromo-3-fluoro- | | | | CAS #: 1073-06-9 | | | |
| 12.940 | 3412630 | 8.87580816 | 11.1 | 95 | NBS75K.l | 16034 | 50 |
| Decane, 2,2-dimethyl- | | | | CAS #: 17302-37-3 | | | |
| 14.823 | 4023744 | 10.4652386 | 13.1 | 78 | NBS75K.l | 15358 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.190 | 7661998 | 19.9278668 | 24.9 | 78 | NBS75K.l | 19054 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.567 | 5366427 | 13.9573834 | 17.4 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.623 | 4639845 | 12.0676366 | 15.1 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07032.D
Injection Date: 12-MAR-2009 01:58
Instrument: 10air7.i
Client Sample ID:



Data File: \\192.168.10.12\chem\10air7.i\031109.b\07031.D
Report Date: 12-Mar-2009 16:16

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 3
Lab Smp Id: 1090528004
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 12-MAR-2009 01:26

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 13.518 | 44.6 | J |
| 2. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.836 | 81.0 | NJ |
| 3. | 629-78-7 | Heptadecane | 14.256 | 22.1 | NJ |
| 4. | 17312-64-0 | Undecane, 2,2-dimethyl- | 15.000 | 18.8 | NJ |
| 5. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.170 | 64.5 | NJ |
| 6. | 17312-57-1 | Dodecane, 3-methyl- | 15.443 | 15.3 | NJ |
| 7. | | Unknown | 15.551 | 47.9 | J |
| 8. | 17302-37-3 | Decane, 2,2-dimethyl- | 15.607 | 49.8 | NJ |
| 9. | 13151-34-3 | Decane, 3-methyl- | 15.902 | 32.4 | NJ |
| 10. | 74630-39-0 | 1-Undecene, 4-methyl- | 16.161 | 16.8 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07031.D
Report Date: 12-Mar-2009 16:16

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07031.D
Lab Smp Id: 1090528004
Inj Date : 12-MAR-2009 01:26
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 3
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 31
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

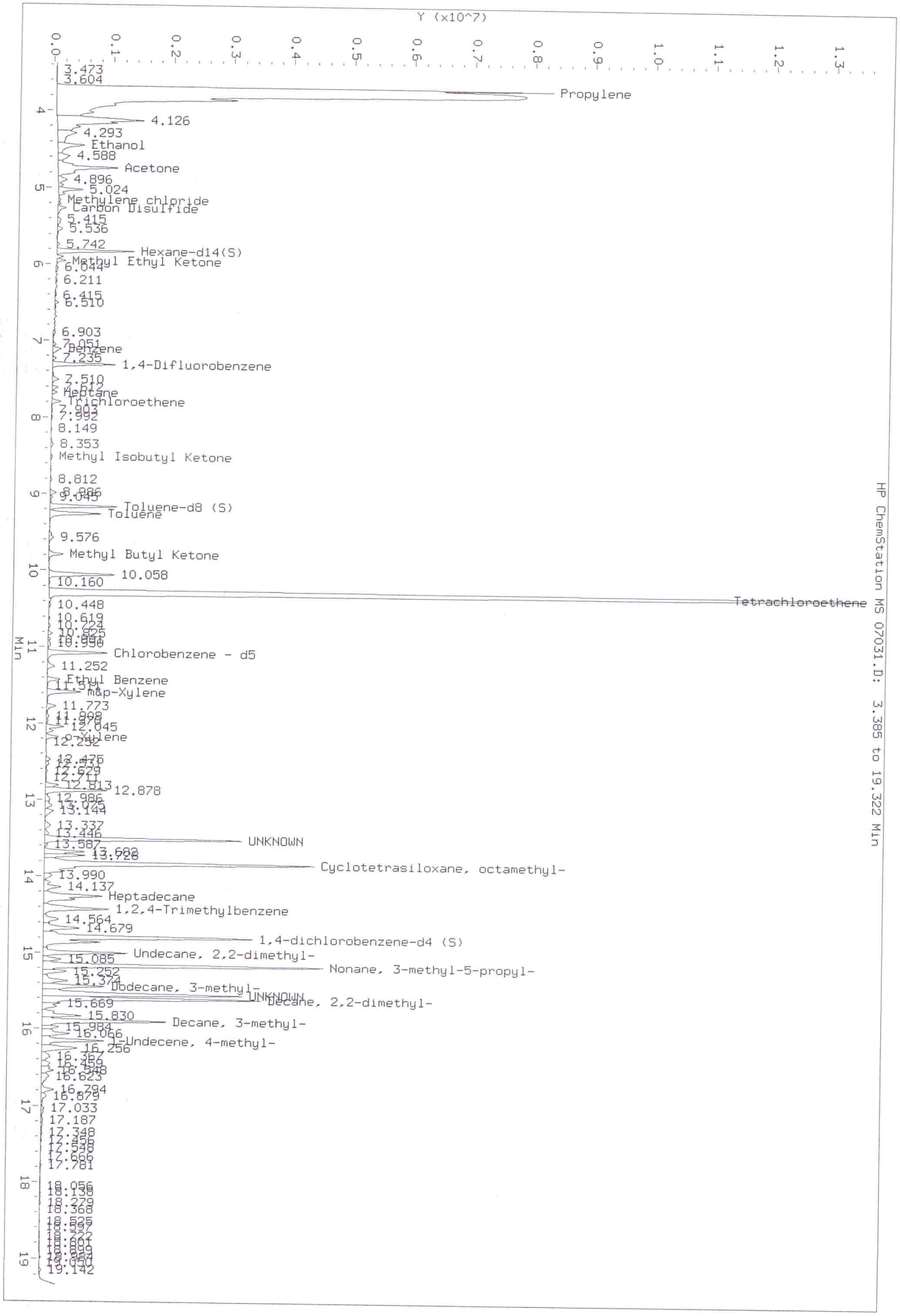
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 50 Chlorobenzene - d5 | 11.075 | 2244894 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 13.518 | 7475634 | 33.3006036 | 44.6 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.836 | 13570922 | 60.4523831 | 81.0 | 86 | NBS75K.l | 41966 | 50 |
| Heptadecane | | | | CAS #: 629-78-7 | | | |
| 14.256 | 3701308 | 16.4876696 | 22.1 | 78 | NBS75K.l | 32063 | 50 |
| Undecane, 2,2-dimethyl- | | | | CAS #: 17312-64-0 | | | |
| 15.000 | 3158648 | 14.0703639 | 18.8 | 78 | NBS75K.l | 19038 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.170 | 10804980 | 48.1313507 | 64.5 | 78 | NBS75K.l | 19054 | 50 |
| Dodecane, 3-methyl- | | | | CAS #: 17312-57-1 | | | |
| 15.443 | 2559441 | 11.4011653 | 15.3 | 72 | NBS75K.l | 19011 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07031.D
Report Date: 12-Mar-2009 16:16

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.551 | 8022850 | 35.7382053 | 47.9 | 0 | | 0 | 50 |
| Decane, 2,2-dimethyl- | | | | CAS #: | 17302-37-3 | | |
| 15.607 | 8351982 | 37.2043408 | 49.8 | 72 | NBS75K.l | 15358 | 50 |
| Decane, 3-methyl- | | | | CAS #: | 13151-34-3 | | |
| 15.902 | 5434776 | 24.2094941 | 32.4 | 72 | NBS75K.l | 67315 | 50 |
| 1-Undecene, 4-methyl- | | | | CAS #: | 74630-39-0 | | |
| 16.161 | 2808704 | 12.5115182 | 16.8 | 80 | NBS75K.l | 14797 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07031.D
Injection Date: 12-MAR-2009 01:26
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07031.D: 3.385 to 19.322 Min

# Sample Condition Upon Receipt

Pace Analytical

**Client Name:** ACC **Project #** 1090528

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

**Tracking #:** _____

Optional
Proj. Due Date:
Proj. Name:

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ✓ No

**Thermometer Used** 80344042 (179425) **Type of Ice:** (Wet) Blue None ☐ Samples on Ice, cooling process has begun

**Cooler Temperature** 6.9 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

**Date and Initials of person examining contents:** 3/5/09 SM

**Comments:**

| | | |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☐Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL/AIR | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 4 CANS

**Project Manager Review:** CAN **Date:** 3-5-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

PEN 3/5/09 SM

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 11, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1090531

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 05, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090531001** | **B-6512 Walker #1 (32')** | Solid | 03/04/09 11:30 | 03/05/09 15:54 |
| **1090531002** | **B-3340 Gorham #1 (29.5')** | Solid | 03/04/09 15:10 | 03/05/09 15:54 |
| **1090531003** | **B-3340 Gorham #11 (29.5')** | Solid | 03/04/09 15:20 | 03/05/09 15:54 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090531001** | **B-6512 Walker #1 (32')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090531002** | **B-3340 Gorham #1 (29.5')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090531003** | **B-3340 Gorham #11 (29.5')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
3 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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(612)607-1700

# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/3885

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 133264)
  - Acetone

R1: RPD value was outside control limits.
- LCSD (Lab ID: 133265)
  - Acetone

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3885

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-6512 Walker #1 (32')** **Lab ID: 1090531001** Collected: 03/04/09 11:30 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.7** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.4 | 6.1 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.6 | 1.5 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.6 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.6 | 0.32 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.6 | 0.91 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.6 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.6 | 1.7 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.6 | 0.61 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.6 | 0.46 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.6 | 0.73 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.6 | 0.19 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.6 | 1.3 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.6 | 0.50 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.6 | 0.78 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.6 | 0.50 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.6 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.6 | 1.1 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.6 | 0.65 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.6 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.6 | 0.66 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.6 | 0.73 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.6 | 0.63 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.6 | 0.53 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.92 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.69 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.6 | 0.62 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.6 | 0.59 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.6 | 0.73 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.6 | 0.68 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.6 | 0.97 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.50 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.48 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.6 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.6 | 0.71 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-6512 Walker #1 (32')** **Lab ID: 1090531001** Collected: 03/04/09 11:30 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.6 | 0.65 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.6 | 0.37 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.6 | 0.78 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.6 | 0.51 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.6 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.6 | 0.11 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.40 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.68 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.6 | 0.84 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.6 | 1.1 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.6 | 0.78 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.6 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.6 | 0.37 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.6 | 0.71 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.6 | 0.66 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.6 | 0.53 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.6 | 0.81 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.6 | 1.3 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.6 | 0.99 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.6 | 0.14 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.6 | 0.80 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.2 | 0.98 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.6 | 0.52 | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 54-150 | | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:00 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-3340 Gorham #1 (29.5')** **Lab ID: 1090531002** Collected: 03/04/09 15:10 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **4.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 16.0 | 5.3 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.0 | 1.3 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.0 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.0 | 0.41 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.0 | 0.87 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.0 | 0.28 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.0 | 0.79 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.0 | 0.90 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.0 | 1.5 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.0 | 0.52 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.0 | 0.40 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.0 | 0.27 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.0 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.0 | 0.16 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.0 | 1.2 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.0 | 0.43 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.0 | 0.68 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.0 | 0.44 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.0 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.0 | 0.97 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.0 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.0 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.0 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.0 | 0.27 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.0 | 0.21 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.0 | 0.20 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.0 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.0 | 0.55 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.0 | 0.46 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.0 | 0.42 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.0 | 0.80 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.0 | 0.60 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.0 | 0.54 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.0 | 0.51 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.0 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.0 | 0.59 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.0 | 0.84 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.0 | 0.43 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.0 | 0.42 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.0 | 0.91 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.0 | 0.21 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.0 | 0.62 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-3340 Gorham #1 (29.5')** **Lab ID: 1090531002** Collected: 03/04/09 15:10 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.0 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.0 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.0 | 0.32 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.0 | 0.68 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.0 | 0.44 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.0 | 0.50 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.0 | 0.21 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.0 | 0.093 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.0 | 0.35 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.0 | 0.59 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.0 | 0.73 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.0 | 0.94 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.0 | 0.68 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.0 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.0 | 0.32 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.0 | 0.62 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.0 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.0 | 0.46 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.0 | 0.70 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.0 | 1.1 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.0 | 0.86 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.0 | 0.12 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.0 | 0.21 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.0 | 0.69 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.0 | 0.85 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.0 | 0.45 | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 95 | % | 42-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:24 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-3340 Gorham #11 (29.5')** **Lab ID: 1090531003** Collected: 03/04/09 15:20 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **4.5** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.8 | 5.9 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.4 | 1.5 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.4 | 0.97 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.4 | 0.31 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.4 | 0.88 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.4 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.4 | 1.6 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.4 | 0.58 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.4 | 0.45 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.4 | 0.71 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.4 | 0.18 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.4 | 0.76 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.4 | 1.1 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.4 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.4 | 0.71 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.4 | 0.61 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.4 | 0.51 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.4 | 0.47 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.89 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.67 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.4 | 0.60 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.4 | 0.57 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.4 | 0.71 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.4 | 0.66 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.4 | 0.94 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.47 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.4 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.4 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.4 | 0.69 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

**Sample: B-3340 Gorham #11 (29.5')** **Lab ID: 1090531003** Collected: 03/04/09 15:20 Received: 03/05/09 15:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.4 | 0.36 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.4 | 0.75 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.4 | 0.56 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.4 | 0.24 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.4 | 0.10 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.39 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.66 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.4 | 0.81 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.4 | 1.0 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.4 | 0.75 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.4 | 0.35 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.4 | 0.69 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.4 | 0.64 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.4 | 0.51 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.4 | 0.78 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.4 | 0.96 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.4 | 0.13 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.4 | 0.77 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.9 | 0.95 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.4 | 0.50 | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 54-150 | | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | 42-125 | | 1 | 03/09/09 09:32 | 03/09/09 11:47 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

QC Batch: MSV/3885 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090531001, 1090531002, 1090531003

METHOD BLANK: 133263 Matrix: Solid
Associated Lab Samples: 1090531001, 1090531002, 1090531003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Acetone | ug/kg | ND | 20.0 | 03/09/09 08:16 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Benzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromoform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

METHOD BLANK: 133263 Matrix: Solid

Associated Lab Samples: 1090531001, 1090531002, 1090531003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/09/09 08:16 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Styrene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Toluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/09/09 08:16 | |
| Dibromofluoromethane (S) | % | 87 | 68-125 | 03/09/09 08:16 | |
| Toluene-d8 (S) | % | 104 | 54-150 | 03/09/09 08:16 | |

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 49.6 | 49.9 | 99 | 100 | 75-127 | .5 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 44.5 | 47.3 | 89 | 95 | 65-125 | 6 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.2 | 53.5 | 104 | 107 | 75-125 | 2 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.0 | 47.2 | 92 | 94 | 67-131 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 51.1 | 53.6 | 102 | 107 | 75-136 | 5 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 45.7 | 47.7 | 91 | 95 | 62-127 | 4 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 48.8 | 49.6 | 98 | 99 | 73-125 | 2 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 30.4 | 36.4 | 61 | 73 | 47-163 | 18 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 44.7 | 49.2 | 89 | 98 | 57-125 | 10 | 20 | |
| Acetone | ug/kg | 50 | 22.9 | 29.1 | 46 | 58 | 49-179 | 24 | 20 | L0,R1 |
| Benzene | ug/kg | 50 | 48.9 | 50.1 | 98 | 100 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 51.7 | 52.4 | 103 | 105 | 75-125 | 1 | 20 | |
| Bromoform | ug/kg | 50 | 54.1 | 55.5 | 108 | 111 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.9 | 56.4 | 106 | 113 | 61-129 | 7 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.1 | 52.0 | 102 | 104 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.2 | 53.7 | 108 | 107 | 75-125 | .9 | 20 | |
| Chloroethane | ug/kg | 50 | 50.4 | 53.4 | 101 | 107 | 66-135 | 6 | 20 | |
| Chloroform | ug/kg | 50 | 48.2 | 48.6 | 96 | 97 | 73-125 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 49.2 | 49.4 | 98 | 99 | 46-137 | .3 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 48.9 | 49.3 | 98 | 99 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 51.7 | 52.9 | 103 | 106 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.8 | 52.1 | 102 | 104 | 75-125 | 3 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.3 | 53.3 | 107 | 107 | 75-126 | .08 | 20 | |
| m&p-Xylene | ug/kg | 100 | 113 | 110 | 113 | 110 | 75-125 | 3 | 20 | |
| Methylene Chloride | ug/kg | 50 | 48.3 | 50.0 | 97 | 100 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.9 | 53.9 | 108 | 108 | 75-125 | .2 | 20 | |
| Styrene | ug/kg | 50 | 50.0 | 49.1 | 100 | 98 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 58.4 | 58.1 | 117 | 116 | 75-126 | .5 | 20 | |
| Toluene | ug/kg | 50 | 54.3 | 53.3 | 109 | 107 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 49.3 | 50.5 | 99 | 101 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.7 | 51.4 | 101 | 103 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 55.4 | 54.7 | 111 | 109 | 75-125 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.6 | 52.6 | 103 | 105 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 95 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 87 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 104 | 103 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

QC Batch: MPRP/14954 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090531001, 1090531002, 1090531003

SAMPLE DUPLICATE: 591506

| Parameter | Units | 1090525002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 24.1 | 25.8 | 7 | 30 | |

SAMPLE DUPLICATE: 591507

| Parameter | Units | 1090621001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 15.0 | 18.3 | 20 | 30 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/3885

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## ANALYTE QUALIFIERS

| | |
|---|---|
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1090531

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090531001** | **B-6512 Walker #1 (32')** | EPA 8260 | MSV/3874 | EPA 8260 | MSV/3885 |
| **1090531002** | **B-3340 Gorham #1 (29.5')** | EPA 8260 | MSV/3874 | EPA 8260 | MSV/3885 |
| **1090531003** | **B-3340 Gorham #11 (29.5')** | EPA 8260 | MSV/3874 | EPA 8260 | MSV/3885 |
| **1090531001** | **B-6512 Walker #1 (32')** | % Moisture | MPRP/14954 | | |
| **1090531002** | **B-3340 Gorham #1 (29.5')** | % Moisture | MPRP/14954 | | |
| **1090531003** | **B-3340 Gorham #11 (29.5')** | % Moisture | MPRP/14954 | | |



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1090531

STS | AECOM

# Chain of Custody Record

№ 4324

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carol Davy
Phone No. 612-607-1700
Results Due: Stand.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6512 Walker #3 (8') | 3/4/09 | 8:50 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | |
| VP-6512 Walker #2 (8') | ↓ | 9:25 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | |
| VP-6512 Walker #22 (8') | ↓ | 9:30 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | |
| VP-6512 Walker #1 (8') | ↓ | 9:17 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | |
| | | | | | | | | | | | | | | |
| B-6512 Walker #1 (32') | 3/4/09 | 1130 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 1090531001 |
| B-3340 Gorham #1 (29.5') | ↓ | 1510 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| B-3340 Gorham #11 (29.5') | ↓ | 1520 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date above | Time above | Delivery by: Pace | Date 3/5/09 | Time 1455 |
| Received by: | Date | Time | Relinquished by: | Date 3/5/09 | Time 1455 |
| Received by: Pace | Date 3/5/09 | Time 1455 | Relinquished by: Pace | Date 3/5/09 | Time 1554 |
| Received by: Pace | Date 3/5/09 | Time 1554 | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T= 8-8

# Sample Condition Upon Receipt

Pace Analytical

Client Name: AECOM Project # 1090531

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ✓ No ~~✓~~ 3/5/09

Thermometer Used 80344042 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 6.8 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 3/5/09 SLA

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☐Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL/AIR | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** _____ **Date:** 3-5-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

March 13, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090611001** | **B-3340 GORHAM #2 (26')** | Solid | 03/05/09 11:40 | 03/06/09 14:20 |
| **1090611002** | **B-3340 GORHAM #3 (21')** | Solid | 03/05/09 16:45 | 03/06/09 14:20 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090611001** | **B-3340 GORHAM #2 (26')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090611002** | **B-3340 GORHAM #3 (21')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/3885

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 133264)
  - Acetone

R1: RPD value was outside control limits.
- LCSD (Lab ID: 133265)
  - Acetone

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3885

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Sample: B-3340 GORHAM #2 (26')** **Lab ID: 1090611001** Collected: 03/05/09 11:40 Received: 03/06/09 14:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.5 | 5.8 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.4 | 1.4 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.4 | 0.45 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.4 | 0.96 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.4 | 0.31 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.4 | 0.87 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.4 | 0.99 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.4 | 1.6 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.4 | 0.58 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.4 | 0.44 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.4 | 0.18 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.4 | 0.47 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.4 | 0.75 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.4 | 1.1 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.4 | 0.53 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.4 | 0.29 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.4 | 0.22 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.4 | 0.60 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.4 | 0.50 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.87 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.66 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.4 | 0.59 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.4 | 0.56 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.4 | 0.93 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.4 | 0.99 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.4 | 0.68 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Sample: B-3340 GORHAM #2 (26')** **Lab ID: 1090611001** Collected: 03/05/09 11:40 Received: 03/06/09 14:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.4 | 0.35 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.4 | 0.74 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.4 | 0.10 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.38 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.4 | 0.80 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.4 | 1.0 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.4 | 0.74 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.4 | 0.61 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.4 | 0.35 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.4 | 0.68 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.4 | 0.50 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.4 | 0.77 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.4 | 1.2 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.4 | 0.95 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.4 | 0.13 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.4 | 0.76 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.8 | 0.94 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 95-47-6 | |
| Dibromofluoromethane (S) | 90 | % | 68-125 | | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 42-125 | | 1 | 03/09/09 09:33 | 03/09/09 12:11 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Sample: B-3340 GORHAM #3 (21')** **Lab ID: 1090611002** Collected: 03/05/09 16:45 Received: 03/06/09 14:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.0** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.5 | 5.8 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 67-64-1 | L2 |
| Allyl chloride | ND | ug/kg | 4.4 | 1.4 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.4 | 0.45 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.4 | 0.96 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.4 | 0.31 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.4 | 0.87 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.4 | 0.99 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.4 | 1.6 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.4 | 0.58 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.4 | 0.44 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.4 | 0.18 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.4 | 0.47 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.4 | 0.75 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.4 | 1.1 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.4 | 0.53 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.4 | 0.29 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.4 | 0.22 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.4 | 0.60 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.4 | 0.50 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.87 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.66 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.4 | 0.59 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.4 | 0.56 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.4 | 0.93 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.4 | 0.99 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.4 | 0.68 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

**Sample: B-3340 GORHAM #3 (21')** **Lab ID: 1090611002** Collected: 03/05/09 16:45 Received: 03/06/09 14:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.4 | 0.62 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.4 | 0.35 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.4 | 0.74 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.4 | 0.10 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.38 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.4 | 0.80 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.4 | 1.0 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.4 | 0.74 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.4 | 0.61 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.4 | 0.35 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.4 | 0.68 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.4 | 0.50 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.4 | 0.77 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.4 | 1.2 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.4 | 0.95 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.4 | 0.13 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.4 | 0.76 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.8 | 0.94 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.4 | 0.49 | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 54-150 | | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 03/09/09 09:33 | 03/09/09 12:34 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

QC Batch: MSV/3885 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090611001, 1090611002

METHOD BLANK: 133263 | Matrix: Solid
Associated Lab Samples: 1090611001, 1090611002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Acetone | ug/kg | ND | 20.0 | 03/09/09 08:16 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Benzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromoform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloroform | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

METHOD BLANK: 133263 Matrix: Solid

Associated Lab Samples: 1090611001, 1090611002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/09/09 08:16 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Styrene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Toluene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/09/09 08:16 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/09/09 08:16 | |
| Dibromofluoromethane (S) | % | 87 | 68-125 | 03/09/09 08:16 | |
| Toluene-d8 (S) | % | 104 | 54-150 | 03/09/09 08:16 | |

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 49.6 | 49.9 | 99 | 100 | 75-127 | .5 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 44.5 | 47.3 | 89 | 95 | 65-125 | 6 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.2 | 53.5 | 104 | 107 | 75-125 | 2 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.0 | 47.2 | 92 | 94 | 67-131 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 51.1 | 53.6 | 102 | 107 | 75-136 | 5 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 45.7 | 47.7 | 91 | 95 | 62-127 | 4 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 48.8 | 49.6 | 98 | 99 | 73-125 | 2 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 30.4 | 36.4 | 61 | 73 | 47-163 | 18 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 44.7 | 49.2 | 89 | 98 | 57-125 | 10 | 20 | |
| Acetone | ug/kg | 50 | 22.9 | 29.1 | 46 | 58 | 49-179 | 24 | 20 | L0,R1 |
| Benzene | ug/kg | 50 | 48.9 | 50.1 | 98 | 100 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 51.7 | 52.4 | 103 | 105 | 75-125 | 1 | 20 | |
| Bromoform | ug/kg | 50 | 54.1 | 55.5 | 108 | 111 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

LABORATORY CONTROL SAMPLE & LCSD: 133264 133265

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.9 | 56.4 | 106 | 113 | 61-129 | 7 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.1 | 52.0 | 102 | 104 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.2 | 53.7 | 108 | 107 | 75-125 | .9 | 20 | |
| Chloroethane | ug/kg | 50 | 50.4 | 53.4 | 101 | 107 | 66-135 | 6 | 20 | |
| Chloroform | ug/kg | 50 | 48.2 | 48.6 | 96 | 97 | 73-125 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 49.2 | 49.4 | 98 | 99 | 46-137 | .3 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 48.9 | 49.3 | 98 | 99 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 51.7 | 52.9 | 103 | 106 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.8 | 52.1 | 102 | 104 | 75-125 | 3 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.3 | 53.3 | 107 | 107 | 75-126 | .08 | 20 | |
| m&p-Xylene | ug/kg | 100 | 113 | 110 | 113 | 110 | 75-125 | 3 | 20 | |
| Methylene Chloride | ug/kg | 50 | 48.3 | 50.0 | 97 | 100 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.9 | 53.9 | 108 | 108 | 75-125 | .2 | 20 | |
| Styrene | ug/kg | 50 | 50.0 | 49.1 | 100 | 98 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 58.4 | 58.1 | 117 | 116 | 75-126 | .5 | 20 | |
| Toluene | ug/kg | 50 | 54.3 | 53.3 | 109 | 107 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 49.3 | 50.5 | 99 | 101 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.7 | 51.4 | 101 | 103 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 55.4 | 54.7 | 111 | 109 | 75-125 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.6 | 52.6 | 103 | 105 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 95 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 87 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 104 | 103 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

QC Batch: MPRP/14955
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090611001, 1090611002

SAMPLE DUPLICATE: 591522

| Parameter | Units | 1090445002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 2.0 | 2.0 | .7 | 30 | |



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# QUALIFIERS

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/3885

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

## ANALYTE QUALIFIERS

| | |
|---|---|
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| R1 | RPD value was outside control limits. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST LOUIS PARK INVESTI
Pace Project No.: 1090611

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090611001** | **B-3340 GORHAM #2 (26')** | EPA 8260 | MSV/3875 | EPA 8260 | MSV/3885 |
| **1090611002** | **B-3340 GORHAM #3 (21')** | EPA 8260 | MSV/3875 | EPA 8260 | MSV/3885 |
| **1090611001** | **B-3340 GORHAM #2 (26')** | % Moisture | MPRP/14955 | | |
| **1090611002** | **B-3340 GORHAM #3 (21')** | % Moisture | MPRP/14955 | | |



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March 11, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1090616

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090616001** | **VP-3340 Gorham #2 (8')** | Air | 03/05/09 14:00 | 03/06/09 14:20 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1090616001** | **VP-3340 Gorham #2 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 11, 2009

**General Information:**
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8216

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- DUP (Lab ID: 592163)
  - Ethanol
- LCS (Lab ID: 591537)
  - Ethanol
- VP-3340 Gorham #2 (8') (Lab ID: 1090616001)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8216

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 591537)
  - Hexachloro-1,3-butadiene
  - Naphthalene

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8216

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 592163)
  - 2-Propanol



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 11, 2009

QC Batch: AIR/8216

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- Cyclohexane
- Propylene
- Trichloroethene

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

- VP-3340 Gorham #2 (8') (Lab ID: 1090616001)

Analyte Comments:

QC Batch: AIR/8216

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 592163)
  - 2-Propanol
  - Trichloroethene
- VP-3340 Gorham #2 (8') (Lab ID: 1090616001)
  - Ethanol
  - 2-Propanol

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

**Sample: VP-3340 Gorham #2 (8')** **Lab ID: 1090616001** Collected: 03/05/09 14:00 Received: 03/06/09 14:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **57.6** | ug/m3 | 0.64 | 0.32 | 1.34 | | 03/10/09 20:39 | 67-64-1 | |
| Benzene | **8.8** | ug/m3 | 0.87 | 0.44 | 1.34 | | 03/10/09 20:39 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/10/09 20:39 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 03/10/09 20:39 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 03/10/09 20:39 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 03/10/09 20:39 | 106-99-0 | |
| 2-Butanone (MEK) | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/10/09 20:39 | 78-93-3 | |
| Carbon disulfide | **4.8** | ug/m3 | 0.84 | 0.42 | 1.34 | | 03/10/09 20:39 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 03/10/09 20:39 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/10/09 20:39 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 03/10/09 20:39 | 75-00-3 | |
| Chloroform | **10.5** | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/10/09 20:39 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 03/10/09 20:39 | 74-87-3 | |
| Cyclohexane | **6.1** | ug/m3 | 0.91 | 0.46 | 1.34 | | 03/10/09 20:39 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 03/10/09 20:39 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/10/09 20:39 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/10/09 20:39 | 95-50-1 | |
| 1,3-Dichlorobenzene | **36.2** | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/10/09 20:39 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/10/09 20:39 | 106-46-7 | |
| Dichlorodifluoromethane | **6.0** | ug/m3 | 1.3 | 0.67 | 1.34 | | 03/10/09 20:39 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/10/09 20:39 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/10/09 20:39 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/10/09 20:39 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/10/09 20:39 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/10/09 20:39 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/10/09 20:39 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/10/09 20:39 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/10/09 20:39 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/10/09 20:39 | 76-14-2 | |
| Ethanol | **31.2** | ug/m3 | 2.5 | 1.1 | 1.34 | | 03/10/09 20:39 | 64-17-5 | E,SS |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/10/09 20:39 | 141-78-6 | |
| Ethylbenzene | **10.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/10/09 20:39 | 100-41-4 | |
| 4-Ethyltoluene | **7.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/10/09 20:39 | 622-96-8 | |
| n-Heptane | **11.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/10/09 20:39 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 03/10/09 20:39 | 87-68-3 | |
| n-Hexane | **15.1** | ug/m3 | 0.96 | 0.48 | 1.34 | | 03/10/09 20:39 | 110-54-3 | |
| 2-Hexanone | **9.1** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/10/09 20:39 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/10/09 20:39 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/10/09 20:39 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/10/09 20:39 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 03/10/09 20:39 | 91-20-3 | |
| 2-Propanol | **527** | ug/m3 | 33.5 | 16.8 | 13.4 | | 03/11/09 12:42 | 67-63-0 | E |
| Propylene | **73.1** | ug/m3 | 4.7 | 2.3 | 13.4 | | 03/11/09 12:42 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 03/10/09 20:39 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/10/09 20:39 | 79-34-5 | |
| Tetrachloroethene | **6.2** | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/10/09 20:39 | 127-18-4 | |



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Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

**Sample: VP-3340 Gorham #2 (8')** **Lab ID: 1090616001** Collected: 03/05/09 14:00 Received: 03/06/09 14:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/10/09 20:39 | 109-99-9 | |
| Toluene | **28.3** | ug/m3 | 1.0 | 0.52 | 1.34 | | 03/10/09 20:39 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/10/09 20:39 | 120-82-1 | |
| 1,1,1-Trichloroethane | **13.9** | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/10/09 20:39 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/10/09 20:39 | 79-00-5 | |
| Trichloroethene | **918** | ug/m3 | 14.7 | 7.4 | 13.4 | | 03/11/09 12:42 | 79-01-6 | |
| Trichlorofluoromethane | **1.9** | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/10/09 20:39 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/10/09 20:39 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **26.9** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/10/09 20:39 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/10/09 20:39 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/10/09 20:39 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 03/10/09 20:39 | 75-01-4 | |
| m&p-Xylene | **21.0** | ug/m3 | 2.4 | 1.2 | 1.34 | | 03/10/09 20:39 | 1330-20-7 | |
| o-Xylene | **6.6** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/10/09 20:39 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

QC Batch: AIR/8216
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1090616001

METHOD BLANK: 591536
Matrix: Air
Associated Lab Samples: 1090616001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 03/10/09 14:41 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 03/10/09 14:41 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 03/10/09 14:41 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 03/10/09 14:41 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 03/10/09 14:41 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 03/10/09 14:41 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 03/10/09 14:41 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/10/09 14:41 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 03/10/09 14:41 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 03/10/09 14:41 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| Acetone | ug/m3 | ND | 0.48 | 03/10/09 14:41 | |
| Benzene | ug/m3 | ND | 0.65 | 03/10/09 14:41 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Bromoform | ug/m3 | ND | 2.1 | 03/10/09 14:41 | |
| Bromomethane | ug/m3 | ND | 0.79 | 03/10/09 14:41 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 03/10/09 14:41 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 03/10/09 14:41 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 03/10/09 14:41 | |
| Chloroethane | ug/m3 | ND | 0.54 | 03/10/09 14:41 | |
| Chloroform | ug/m3 | ND | 0.99 | 03/10/09 14:41 | |
| Chloromethane | ug/m3 | ND | 0.42 | 03/10/09 14:41 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/10/09 14:41 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 03/10/09 14:41 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 03/10/09 14:41 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 03/10/09 14:41 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Ethanol | ug/m3 | ND | 1.9 | 03/10/09 14:41 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 03/10/09 14:41 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 03/10/09 14:41 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 03/10/09 14:41 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 03/10/09 14:41 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

METHOD BLANK: 591536 Matrix: Air

Associated Lab Samples: 1090616001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 03/10/09 14:41 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 03/10/09 14:41 | |
| n-Heptane | ug/m3 | ND | 0.83 | 03/10/09 14:41 | |
| n-Hexane | ug/m3 | ND | 0.72 | 03/10/09 14:41 | |
| Naphthalene | ug/m3 | ND | 2.7 | 03/10/09 14:41 | |
| o-Xylene | ug/m3 | ND | 0.88 | 03/10/09 14:41 | |
| Propylene | ug/m3 | ND | 0.35 | 03/10/09 14:41 | |
| Styrene | ug/m3 | ND | 0.87 | 03/10/09 14:41 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 03/10/09 14:41 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 03/10/09 14:41 | |
| Toluene | ug/m3 | ND | 0.77 | 03/10/09 14:41 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/10/09 14:41 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/10/09 14:41 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 03/10/09 14:41 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 03/10/09 14:41 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 03/10/09 14:41 | |

LABORATORY CONTROL SAMPLE: 591537

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 56.8 | 99 | 60-134 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 70.4 | 99 | 55-141 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 51.3 | 92 | 64-129 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 60.3 | 79 | 55-137 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 35.7 | 87 | 59-136 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 39.7 | 99 | 60-137 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 106 | 142 | 50-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 53.4 | 108 | 63-137 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 78.2 | 96 | 61-136 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 67.8 | 109 | 60-139 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 40.8 | 91 | 56-141 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 51.6 | 102 | 57-131 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.7 | 108 | 61-134 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 22.1 | 97 | 53-140 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 66.6 | 104 | 59-136 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 67.1 | 107 | 59-130 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 28.1 | 91 | 54-133 | |
| 2-Hexanone | ug/m3 | 42.1 | 42.4 | 101 | 54-139 | |
| 2-Propanol | ug/m3 | 23.8 | 18.9 | 80 | 50-150 | |
| 4-Ethyltoluene | ug/m3 | 50 | 44.2 | 88 | 61-138 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 42.2 | 99 | 53-139 | |
| Acetone | ug/m3 | 24.2 | 17.5 | 72 | 50-139 | |
| Benzene | ug/m3 | 32.8 | 31.1 | 95 | 64-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 65.3 | 96 | 61-131 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

LABORATORY CONTROL SAMPLE: 591537

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 99.6 | 93 | 66-138 | |
| Bromomethane | ug/m3 | 39.9 | 38.3 | 96 | 55-135 | |
| Carbon disulfide | ug/m3 | 32.6 | 36.4 | 112 | 50-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 59.7 | 92 | 58-135 | |
| Chlorobenzene | ug/m3 | 46.4 | 47.5 | 102 | 62-139 | |
| Chloroethane | ug/m3 | 26.6 | 26.2 | 99 | 56-140 | |
| Chloroform | ug/m3 | 48.5 | 48.8 | 101 | 50-150 | |
| Chloromethane | ug/m3 | 21 | 19.9 | 95 | 56-144 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 38.8 | 93 | 62-135 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 55.2 | 114 | 64-133 | |
| Cyclohexane | ug/m3 | 35.7 | 39.1 | 109 | 54-139 | |
| Dibromochloromethane | ug/m3 | 91 | 85.8 | 94 | 50-150 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 47.8 | 97 | 60-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 60.1 | 85 | 59-130 | |
| Ethanol | ug/m3 | 19.2 | 39.4 | 205 | 50-150 | SS |
| Ethyl acetate | ug/m3 | 37.4 | 43.6 | 117 | 60-132 | |
| Ethylbenzene | ug/m3 | 48.6 | 49.1 | 101 | 65-140 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 168 | 158 | 50-150 | L3 |
| m&p-Xylene | ug/m3 | 92.7 | 92.0 | 99 | 60-132 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 37.6 | 103 | 50-150 | |
| Methylene Chloride | ug/m3 | 34.6 | 29.1 | 84 | 56-138 | |
| n-Heptane | ug/m3 | 42.9 | 37.7 | 88 | 62-135 | |
| n-Hexane | ug/m3 | 39.1 | 40.3 | 103 | 62-134 | |
| Naphthalene | ug/m3 | 50.6 | 75.0 | 148 | 70-130 | L3 |
| o-Xylene | ug/m3 | 45.5 | 45.4 | 100 | 64-132 | |
| Propylene | ug/m3 | 18.6 | 18.8 | 102 | 56-125 | |
| Styrene | ug/m3 | 43.3 | 42.2 | 98 | 69-134 | |
| Tetrachloroethene | ug/m3 | 71.7 | 69.2 | 96 | 60-137 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 15.4 | 68 | 52-139 | |
| Toluene | ug/m3 | 39.9 | 37.4 | 94 | 69-130 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 41.4 | 99 | 50-150 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 45.3 | 93 | 70-142 | |
| Trichloroethene | ug/m3 | 55.2 | 61.2 | 111 | 60-134 | |
| Trichlorofluoromethane | ug/m3 | 56 | 54.3 | 97 | 56-141 | |
| Vinyl acetate | ug/m3 | 36.9 | 36.2 | 98 | 61-142 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.5 | 95 | 66-132 | |

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 13.9 | 11.1 | 22 | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 26.9 | 22.7 | 17 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 36.2 | 30.8 | 16 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | ND | ND | | 25 | |
| 2-Hexanone | ug/m3 | 9.1 | 7.1 | 24 | 25 | |
| 2-Propanol | ug/m3 | 527 | 221 | 82 | 25 | D6,E |
| 4-Ethyltoluene | ug/m3 | 7.8 | 7.8 | .8 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 57.6 | 47.4 | 19 | 25 | |
| Benzene | ug/m3 | 8.8 | 7.0 | 23 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 4.8 | 3.9 | 21 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 10.5 | 8.3 | 24 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 6.1 | 4.7 | 26 | 25 | D6 |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 6.0 | 4.9 | 20 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 31.2 | 25.9 | 19 | 25 | SS |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 10.2 | 8.1 | 23 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 21.0 | 16.9 | 22 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 11.8 | 9.9 | 18 | 25 | |
| n-Hexane | ug/m3 | 15.1 | 12.2 | 21 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 6.6 | 5.3 | 22 | 25 | |
| Propylene | ug/m3 | 73.1 | 40.8 | 57 | 25 | D6 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 6.2 | 4.8 | 25 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 28.3 | 23.1 | 20 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

SAMPLE DUPLICATE: 592163

| Parameter | Units | 1090616001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 918 | 463 | 66 | 25 | D6,E |
| Trichlorofluoromethane | ug/m3 | 1.9 | 1.5 | 22 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1090616001

| | |
|---|---|
| [1] | The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene). |

## ANALYTE QUALIFIERS

| | |
|---|---|
| D6 | The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| SS | This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1090616

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090616001** | **VP-3340 Gorham #2 (8')** | TO-15 | AIR/8216 | | |



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Data File: \\192.168.10.12\chem\10air7.i\031009.b\06923.D
Report Date: 11-Mar-2009 09:45

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1090616001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-MAR-2009 20:39

Client SDG: 031009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 67-63-0 | Isopropyl Alcohol | 4.936 | 62.2 | NJ |
| 2. | | Unknown | 13.547 | 43.1 | J |
| 3. | 54833-48-6 | Heptadecane, 2,6,10,15-tetr | 14.298 | 18.7 | NJ |
| 4. | 17302-37-3 | Decane, 2,2-dimethyl- | 14.715 | 7.73 | NJ |
| 5. | 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.049 | 12.4 | NJ |
| 6. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.220 | 54.7 | NJ |
| 7. | | Unknown | 15.488 | 6.86 | J |
| 8. | 16747-26-5 | Hexane, 2,2,4-trimethyl- | 15.593 | 39.6 | NJ |
| 9. | 13151-34-3 | Decane, 3-methyl- | 15.938 | 7.51 | NJ |
| 10. | | Unknown | 18.774 | 102 | J |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06923.D
Report Date: 11-Mar-2009 09:45

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031009.b\06923.D
Lab Smp Id: 1090616001
Inj Date : 10-MAR-2009 20:39
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 8216
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031009.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 08:36 apeterson Quant Type: ISTD
Cal Date : 10-MAR-2009 10:44 Cal File: 06906.D
Als bottle: 23
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

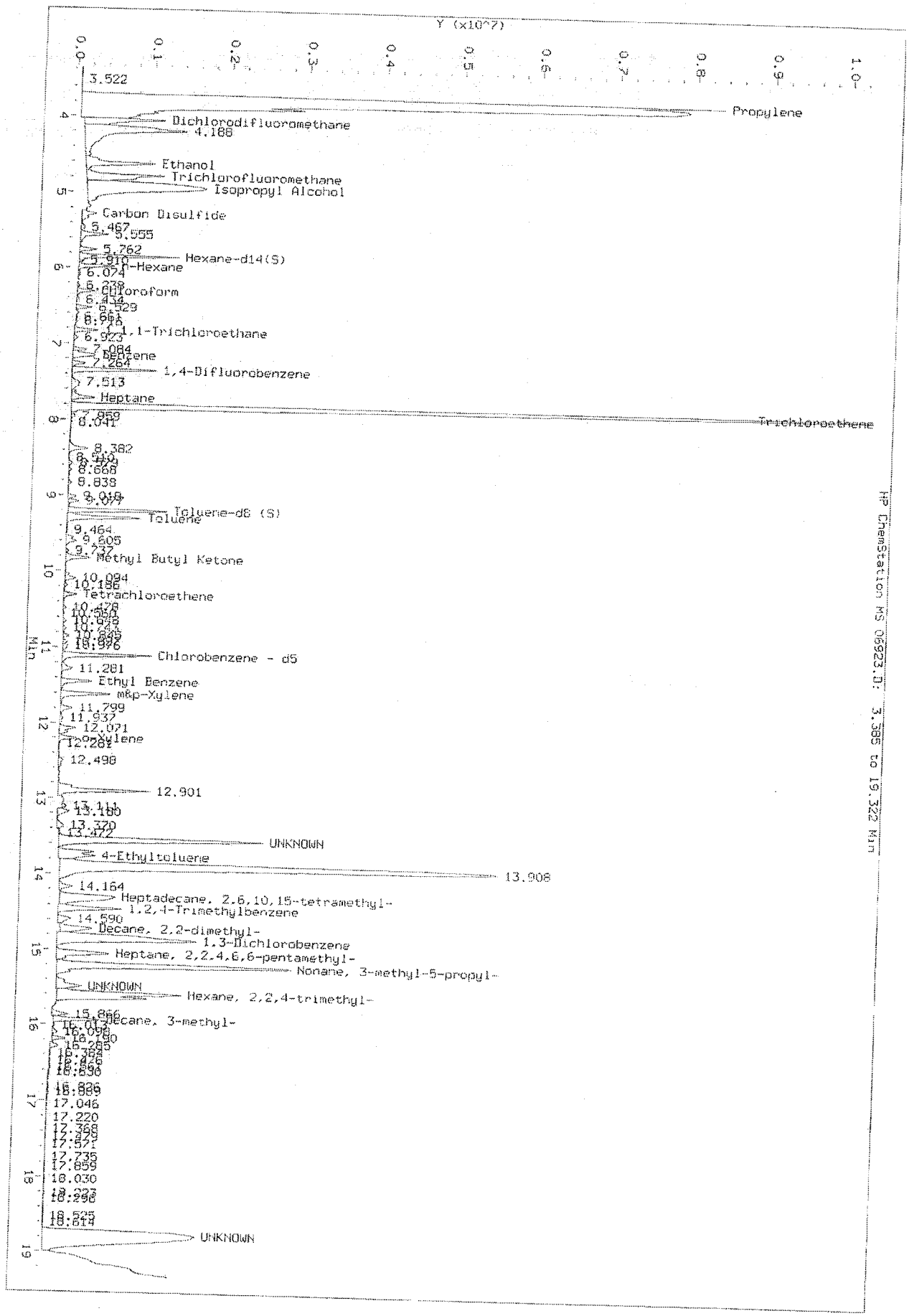
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.353 | 2541829 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.101 | 2734946 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Isopropyl Alcohol | | | | | CAS #: 67-63-0 | | |
| 4.936 | 11808068 | 46.4550012 | 62.2 | 78 | NBS75K.1 | 62356 | 35 |
| Unknown | | | | | CAS #: | | |
| 13.547 | 8798707 | 32.1714080 | 43.1 | 0 | | 0 | 50 |
| Heptadecane, 2,6,10,15-tetramethyl- | | | | | CAS #: 54833-48-6 | | |
| 14.298 | 3822994 | 13.9783150 | 18.7 | 78 | NBS75K.1 | 42196 | 50 |
| Decane, 2,2-dimethyl- | | | | | CAS #: 17302-37-3 | | |
| 14.715 | 1577865 | 5.76927406 | 7.73 | 78 | NBS75K.1 | 15358 | 50 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | | CAS #: 13475-82-6 | | |
| 15.049 | 2528497 | 9.24514224 | 12.4 | 78 | NBS75K.1 | 68259 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031009.b\06923.D
Report Date: 11-Mar-2009 09:45

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.220 | 11171493 | 40.8472118 | 54.7 | 72 | NBS75K.1 | 19054 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.488 | 1400150 | 5.11947781 | 6.86 | 0 | | 0 | 50 |
| Hexane, 2,2,4-trimethyl- | | | | CAS #: 16747-26-5 | | | |
| 15.593 | 8083295 | 29.5555912 | 39.6 | 72 | NBS75K.1 | 65103 | 50 |
| Decane, 3-methyl- | | | | CAS #: 13151-34-3 | | | |
| 15.938 | 1532381 | 5.60296643 | 7.51 | 72 | NBS75K.1 | 67315 | 50 |
| Unknown | | | | CAS #: | | | |
| 18.774 | 20906482 | 76.4420228 | 102 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\Chem\10air7.i\031009.b\06923.D
Injection Date: 10-MAR-2009 20:39
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 06923.D: 3.385 to 19.322 Min

MPCA Project

1090616

STS | AECOM

# Chain of Custody Record

№ 4321

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office: Mpls
Project No. 04660024 PO No.
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carol Davy
Phone No. 612-607-1700
Results Due: Stand.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-3340 Gorham #2 (26') | 3/5/09 | 1140 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | |
| B-3340 Gorham #3 (28') | 3/5/09 | 1645 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | |
| VP-3340 Gorham #2 (8') | 3/5/09 | 1400 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 1090616001 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/5/09 | Time above | Delivery by: Pace | Date | Time |
| Received by: [signature] | Date 3-6-09 | Time 1252 | Relinquished by: [signature] | Date 3-6-09 | Time 1420 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date 3/6/09 | Time 1420 | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM Project # 1090616

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____ Temp Blank: Yes ____ No ✓

Thermometer Used 80344042, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature AMB Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/6/09 AR

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☒N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AR | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed ____ Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

I Can

**Project Manager Review:** _____ Date: 3-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers) 3/6/09

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 13, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 07, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | Solid | 03/06/09 12:00 | 03/07/09 10:54 |
| **1090640002** | **B-3326 GORHAM #2 (19')** | Solid | 03/06/09 13:45 | 03/07/09 10:54 |
| **1090640003** | **B-3326 GORHAM #22 (19')** | Solid | 03/06/09 13:55 | 03/07/09 10:54 |
| **1090640004** | **B-3326 GORHAM #3 (10')** | Solid | 03/06/09 17:20 | 03/07/09 10:54 |
| **1090640005** | **TRIP BLANK** | Solid | 03/06/09 00:00 | 03/07/09 10:54 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640002** | **B-3326 GORHAM #2 (19')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640003** | **B-3326 GORHAM #22 (19')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640004** | **B-3326 GORHAM #3 (10')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
4 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Workorder Comments:

The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.



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# PROJECT NARRATIVE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3901

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Workorder Comments:

The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.

This data package has been reviewed for quality and completeness and is approved for release.



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Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #1 (16')** **Lab ID: 1090640001** Collected: 03/06/09 12:00 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **1.7** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.6 | 6.5 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.9 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.9 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.9 | 0.34 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.9 | 0.97 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.9 | 1.8 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.9 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.9 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.9 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.9 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.9 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.9 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.9 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.9 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.9 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.9 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.9 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.9 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.98 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.9 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.9 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.9 | 0.72 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.9 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.9 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #1 (16')** **Lab ID: 1090640001** Collected: 03/06/09 12:00 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.9 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.9 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.9 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.9 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.9 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.9 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.43 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.73 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.9 | 0.90 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.9 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.9 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.9 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.9 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.9 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.9 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.9 | 0.86 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.9 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.9 | 0.15 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.9 | 0.85 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.9 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #2 (19')** **Lab ID: 1090640002** Collected: 03/06/09 13:45 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.1 | 6.4 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.94 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.7 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.24 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #2 (19')** **Lab ID: 1090640002** Collected: 03/06/09 13:45 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #22 (19')** **Lab ID: 1090640003** Collected: 03/06/09 13:55 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.0 | 6.3 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.7 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.7 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.7 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.7 | 0.94 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.7 | 1.7 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.7 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.7 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.7 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.7 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.7 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.7 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.7 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.7 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.7 | 0.24 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.7 | 0.65 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.7 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.7 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.7 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.7 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #22 (19')** **Lab ID: 1090640003** Collected: 03/06/09 13:55 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.7 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.7 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.7 | 0.80 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.7 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.7 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.41 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.7 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.7 | 0.80 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.7 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.7 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.7 | 0.73 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.7 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.7 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.7 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.7 | 0.14 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.7 | 0.82 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.7 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 97 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #3 (10')** **Lab ID: 1090640004** Collected: 03/06/09 17:20 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.2** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.7 | 5.9 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.4 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.4 | 0.97 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.4 | 0.31 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.4 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.4 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.4 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.4 | 0.45 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.4 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.4 | 0.18 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.4 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.4 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.4 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.88 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.4 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.4 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.4 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.4 | 0.93 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.47 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.4 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #3 (10')** **Lab ID: 1090640004** Collected: 03/06/09 17:20 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.4 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.4 | 0.36 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.4 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.4 | 0.10 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.4 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.4 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.4 | 0.35 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.4 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.4 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.4 | 0.77 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.4 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.4 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **5.2** | ug/kg | 4.4 | 0.13 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.4 | 0.77 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.8 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.4 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1868-53-7 | |
| Toluene-d8 (S) | 105 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

QC Batch: MSV/3901 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

METHOD BLANK: 133810 Matrix: Solid
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Acetone | ug/kg | ND | 20.0 | 03/10/09 11:29 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Benzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromoform | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloroform | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

METHOD BLANK: 133810 Matrix: Solid

Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/10/09 11:29 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Styrene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Toluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/10/09 11:29 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 03/10/09 11:29 | |
| Toluene-d8 (S) | % | 103 | 54-150 | 03/10/09 11:29 | |

LABORATORY CONTROL SAMPLE & LCSD: 133811 133812

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 48.9 | 49.5 | 98 | 99 | 75-127 | 1 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 46.0 | 46.8 | 92 | 94 | 65-125 | 2 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 51.2 | 50.7 | 102 | 101 | 75-125 | 1 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.6 | 46.9 | 93 | 94 | 67-131 | .7 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 53.3 | 52.9 | 107 | 106 | 75-136 | .7 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 47.1 | 46.6 | 94 | 93 | 62-127 | 1 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 47.4 | 48.8 | 95 | 98 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 37.4 | 37.3 | 75 | 75 | 47-163 | .1 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 47.4 | 48.5 | 95 | 97 | 57-125 | 2 | 20 | |
| Acetone | ug/kg | 50 | 30.4 | 29.5 | 61 | 59 | 49-179 | 3 | 20 | |
| Benzene | ug/kg | 50 | 48.9 | 49.0 | 98 | 98 | 72-127 | .1 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 50.1 | 51.0 | 100 | 102 | 75-125 | 2 | 20 | |
| Bromoform | ug/kg | 50 | 52.3 | 53.7 | 105 | 107 | 75-125 | 3 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

LABORATORY CONTROL SAMPLE & LCSD: 133811 133812

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 53.4 | 53.0 | 107 | 106 | 61-129 | .8 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.6 | 51.0 | 103 | 102 | 75-139 | 1 | 20 | |
| Chlorobenzene | ug/kg | 50 | 52.7 | 53.1 | 105 | 106 | 75-125 | .7 | 20 | |
| Chloroethane | ug/kg | 50 | 53.7 | 53.0 | 107 | 106 | 66-135 | 1 | 20 | |
| Chloroform | ug/kg | 50 | 48.7 | 48.6 | 97 | 97 | 73-125 | .2 | 20 | |
| Chloromethane | ug/kg | 50 | 49.3 | 48.6 | 99 | 97 | 46-137 | 1 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 49.1 | 48.7 | 98 | 97 | 72-125 | .9 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 50.8 | 51.9 | 102 | 104 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.4 | 50.9 | 101 | 102 | 75-125 | 1 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.2 | 53.1 | 104 | 106 | 75-126 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 109 | 111 | 109 | 111 | 75-125 | 2 | 20 | |
| Methylene Chloride | ug/kg | 50 | 49.0 | 48.9 | 98 | 98 | 58-130 | .3 | 20 | |
| o-Xylene | ug/kg | 50 | 52.4 | 53.1 | 105 | 106 | 75-125 | 1 | 20 | |
| Styrene | ug/kg | 50 | 48.7 | 49.3 | 97 | 99 | 75-125 | 1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 55.6 | 56.9 | 111 | 114 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 52.8 | 52.9 | 106 | 106 | 75-125 | .1 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 50.4 | 49.1 | 101 | 98 | 75-129 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.1 | 49.6 | 100 | 99 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 54.0 | 54.9 | 108 | 110 | 75-125 | 2 | 20 | |
| Vinyl chloride | ug/kg | 50 | 52.7 | 52.0 | 105 | 104 | 58-135 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 96 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 90 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 102 | 102 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

QC Batch: MPRP/14955 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

SAMPLE DUPLICATE: 591522

| Parameter | Units | 1090445002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 2.0 | 2.0 | .7 | 30 | |



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# QUALIFIERS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## WORKORDER QUALIFIERS

WO: 1090640

[1] The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.

## BATCH QUALIFIERS

Batch: MSV/3901

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640002** | **B-3326 GORHAM #2 (19')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640003** | **B-3326 GORHAM #22 (19')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640004** | **B-3326 GORHAM #3 (10')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640001** | **B-3326 GORHAM #1 (16')** | % Moisture | MPRP/14955 | | |
| **1090640002** | **B-3326 GORHAM #2 (19')** | % Moisture | MPRP/14955 | | |
| **1090640003** | **B-3326 GORHAM #22 (19')** | % Moisture | MPRP/14955 | | |
| **1090640004** | **B-3326 GORHAM #3 (10')** | % Moisture | MPRP/14955 | | |



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MPCA Project

# Chain of Custody Record

№ 4302 | 090640

STS | AECOM

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory Pace
Contact Person Carol Dang
Phone No. 612-607-1700
Results Due Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-3326 Gorham #1 (16') | 3/6/09 | 1200 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-3326 Gorham #2 (19') | ↓ | 1345 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| B-3326 Gorham #22 (19') | ↓ | 1355 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |
| B-3326 Gorham #3 (10') | ↓ | 1720 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 004 |
| Trip Blank | ↓ | — | ↓ | | 1 | ↓ | 1 | 0 | | | | | ↓ | 005 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/6/09 | Time above | Delivery by: Ryan Doherty | Date 3/7/09 | Time 1054 |
| Received by: pace | Date 3/7/09 | Time 1054 | Relinquished by: Ryan Doherty | Date 3/7/09 | Time 1054 |
| Received by: | Date T=2.8 | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: Acum / STS  Project # 1090640

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no  Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other  Temp Blank: Yes ✓ No

Thermometer Used 80344042 179425  Type of Ice: Wet Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.5°C  Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/7/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☒Yes ☐No ☐N/A | 16. 1 Methanol |
| Trip Blank Custody Seals Present | ☒Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): 102008-3 | | |

**Client Notification/ Resolution:**  Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CMY  Date: 3/9/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp.)

**Pace Analytical Services, Inc.**
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March 13, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 07, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | Solid | 03/06/09 12:00 | 03/07/09 10:54 |
| **1090640002** | **B-3326 GORHAM #2 (19')** | Solid | 03/06/09 13:45 | 03/07/09 10:54 |
| **1090640003** | **B-3326 GORHAM #22 (19')** | Solid | 03/06/09 13:55 | 03/07/09 10:54 |
| **1090640004** | **B-3326 GORHAM #3 (10')** | Solid | 03/06/09 17:20 | 03/07/09 10:54 |
| **1090640005** | **TRIP BLANK** | Solid | 03/06/09 00:00 | 03/07/09 10:54 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640002** | **B-3326 GORHAM #2 (19')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640003** | **B-3326 GORHAM #22 (19')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1090640004** | **B-3326 GORHAM #3 (10')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
4 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Workorder Comments:

The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.



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# PROJECT NARRATIVE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** March 13, 2009

**General Information:**
4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/3901

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Workorder Comments:

The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #1 (16')** **Lab ID: 1090640001** Collected: 03/06/09 12:00 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **1.7** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.6 | 6.5 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.9 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.9 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.9 | 0.34 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.9 | 0.97 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.9 | 1.8 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.9 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.9 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.9 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.9 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.9 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.9 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.9 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.9 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.9 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.9 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.9 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.9 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.9 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.98 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.9 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.9 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.9 | 0.78 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.9 | 0.72 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.9 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.9 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #1 (16')** **Lab ID: 1090640001** Collected: 03/06/09 12:00 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.9 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.9 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.9 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.9 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.9 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.9 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.43 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.73 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.9 | 0.90 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.9 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.9 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.9 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.9 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.9 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.9 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.9 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.9 | 0.86 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.9 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.9 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.9 | 0.15 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.9 | 0.85 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.9 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 12:40 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #2 (19')** **Lab ID: 1090640002** Collected: 03/06/09 13:45 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.1 | 6.4 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.94 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.7 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.24 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #2 (19')** **Lab ID: 1090640002** Collected: 03/06/09 13:45 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:03 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #22 (19')** **Lab ID: 1090640003** Collected: 03/06/09 13:55 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.6** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.0 | 6.3 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.7 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.7 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.7 | 0.33 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.7 | 0.94 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.7 | 1.7 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.7 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.7 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.7 | 0.20 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.7 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.7 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.7 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.7 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.7 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.7 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.7 | 0.24 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.7 | 0.65 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.7 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.7 | 0.64 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.7 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.7 | 0.76 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.52 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.7 | 0.74 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #22 (19')** **Lab ID: 1090640003** Collected: 03/06/09 13:55 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.7 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.7 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.7 | 0.80 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.7 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.7 | 0.59 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.7 | 0.11 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.41 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.7 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.7 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.7 | 0.80 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.7 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.7 | 0.38 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.7 | 0.73 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.7 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.7 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.7 | 0.83 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.7 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.7 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.7 | 0.14 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.7 | 0.82 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.7 | 0.53 | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 97 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:27 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #3 (10')** **Lab ID: 1090640004** Collected: 03/06/09 17:20 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.2** | % | 0.10 | 0.10 | 1 | | 03/09/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.7 | 5.9 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.4 | 1.4 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.4 | 0.97 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.4 | 0.31 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.4 | 0.87 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.4 | 1.6 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.4 | 0.58 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.4 | 0.45 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.4 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.4 | 0.18 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.4 | 1.3 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.4 | 1.1 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.4 | 0.54 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.4 | 0.30 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.4 | 0.70 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.4 | 0.61 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.4 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.4 | 0.46 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.88 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.4 | 0.67 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.4 | 0.60 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.4 | 0.56 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.4 | 0.71 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.4 | 0.65 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.4 | 0.93 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.48 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.4 | 0.47 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.4 | 0.69 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

**Sample: B-3326 GORHAM #3 (10')** **Lab ID: 1090640004** Collected: 03/06/09 17:20 Received: 03/07/09 10:54 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.4 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.4 | 0.36 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.4 | 0.49 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.4 | 0.55 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.4 | 0.10 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.39 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.4 | 0.66 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.4 | 0.81 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.4 | 1.0 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.4 | 0.75 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.4 | 0.62 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.4 | 0.35 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.4 | 0.68 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.4 | 0.63 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.4 | 0.51 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.4 | 0.77 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.4 | 1.2 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.4 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **5.2** | ug/kg | 4.4 | 0.13 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.4 | 0.23 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.4 | 0.77 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.8 | 0.95 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.4 | 0.50 | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 1868-53-7 | |
| Toluene-d8 (S) | 105 | % | 54-150 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | 42-125 | | 1 | 03/10/09 09:40 | 03/10/09 13:50 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

QC Batch: MSV/3901 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

METHOD BLANK: 133810 Matrix: Solid
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Acetone | ug/kg | ND | 20.0 | 03/10/09 11:29 | |
| Allyl chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Benzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromoform | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Bromomethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloroethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloroform | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Chloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dibromomethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

METHOD BLANK: 133810 Matrix: Solid

Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 03/10/09 11:29 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Naphthalene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| o-Xylene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Styrene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Toluene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Trichloroethene | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 03/10/09 11:29 | |
| 4-Bromofluorobenzene (S) | % | 98 | 42-125 | 03/10/09 11:29 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 03/10/09 11:29 | |
| Toluene-d8 (S) | % | 103 | 54-150 | 03/10/09 11:29 | |

LABORATORY CONTROL SAMPLE & LCSD: 133811 133812

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 48.9 | 49.5 | 98 | 99 | 75-127 | 1 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 46.0 | 46.8 | 92 | 94 | 65-125 | 2 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 51.2 | 50.7 | 102 | 101 | 75-125 | 1 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 46.6 | 46.9 | 93 | 94 | 67-131 | .7 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 53.3 | 52.9 | 107 | 106 | 75-136 | .7 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 47.1 | 46.6 | 94 | 93 | 62-127 | 1 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 47.4 | 48.8 | 95 | 98 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 37.4 | 37.3 | 75 | 75 | 47-163 | .1 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 47.4 | 48.5 | 95 | 97 | 57-125 | 2 | 20 | |
| Acetone | ug/kg | 50 | 30.4 | 29.5 | 61 | 59 | 49-179 | 3 | 20 | |
| Benzene | ug/kg | 50 | 48.9 | 49.0 | 98 | 98 | 72-127 | .1 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 50.1 | 51.0 | 100 | 102 | 75-125 | 2 | 20 | |
| Bromoform | ug/kg | 50 | 52.3 | 53.7 | 105 | 107 | 75-125 | 3 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

LABORATORY CONTROL SAMPLE & LCSD: 133811 133812

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 53.4 | 53.0 | 107 | 106 | 61-129 | .8 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 51.6 | 51.0 | 103 | 102 | 75-139 | 1 | 20 | |
| Chlorobenzene | ug/kg | 50 | 52.7 | 53.1 | 105 | 106 | 75-125 | .7 | 20 | |
| Chloroethane | ug/kg | 50 | 53.7 | 53.0 | 107 | 106 | 66-135 | 1 | 20 | |
| Chloroform | ug/kg | 50 | 48.7 | 48.6 | 97 | 97 | 73-125 | .2 | 20 | |
| Chloromethane | ug/kg | 50 | 49.3 | 48.6 | 99 | 97 | 46-137 | 1 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 49.1 | 48.7 | 98 | 97 | 72-125 | .9 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 50.8 | 51.9 | 102 | 104 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.4 | 50.9 | 101 | 102 | 75-125 | 1 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.2 | 53.1 | 104 | 106 | 75-126 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 109 | 111 | 109 | 111 | 75-125 | 2 | 20 | |
| Methylene Chloride | ug/kg | 50 | 49.0 | 48.9 | 98 | 98 | 58-130 | .3 | 20 | |
| o-Xylene | ug/kg | 50 | 52.4 | 53.1 | 105 | 106 | 75-125 | 1 | 20 | |
| Styrene | ug/kg | 50 | 48.7 | 49.3 | 97 | 99 | 75-125 | 1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 55.6 | 56.9 | 111 | 114 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 52.8 | 52.9 | 106 | 106 | 75-125 | .1 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 50.4 | 49.1 | 101 | 98 | 75-129 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.1 | 49.6 | 100 | 99 | 68-125 | 1 | 20 | |
| Trichloroethene | ug/kg | 50 | 54.0 | 54.9 | 108 | 110 | 75-125 | 2 | 20 | |
| Vinyl chloride | ug/kg | 50 | 52.7 | 52.0 | 105 | 104 | 58-135 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 97 | 96 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 90 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 102 | 102 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

QC Batch: MPRP/14955 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1090640001, 1090640002, 1090640003, 1090640004

SAMPLE DUPLICATE: 591522

| Parameter | Units | 1090445002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 2.0 | 2.0 | .7 | 30 | |



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# QUALIFIERS

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## WORKORDER QUALIFIERS

WO: 1090640

[1] The trip blank received with this sample exhibited unusual characteristics when the lab tried to analyze it. It was decided not to risk damage to the instrument and the trip blank was not analyzed.

## BATCH QUALIFIERS

Batch: MSV/3901

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST. LOUISPARK INVESTI
Pace Project No.: 1090640

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090640001** | **B-3326 GORHAM #1 (16')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640002** | **B-3326 GORHAM #2 (19')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640003** | **B-3326 GORHAM #22 (19')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640004** | **B-3326 GORHAM #3 (10')** | EPA 8260 | MSV/3893 | EPA 8260 | MSV/3901 |
| **1090640001** | **B-3326 GORHAM #1 (16')** | % Moisture | MPRP/14955 | | |
| **1090640002** | **B-3326 GORHAM #2 (19')** | % Moisture | MPRP/14955 | | |
| **1090640003** | **B-3326 GORHAM #22 (19')** | % Moisture | MPRP/14955 | | |
| **1090640004** | **B-3326 GORHAM #3 (10')** | % Moisture | MPRP/14955 | | |



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MPCA Project

# Chain of Custody Record

№ 4302 | 090640

STS | AECOM

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory Pace
Contact Person Carol Dang
Phone No. 612-607-1700
Results Due Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-3326 Gorham #1 (16') | 3/6/09 | 1200 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-3326 Gorham #2 (19') | ↓ | 1345 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| B-3326 Gorham #22 (19') | ↓ | 1355 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |
| B-3326 Gorham #3 (10') | ↓ | 1720 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 004 |
| Trip Blank | ↓ | — | ↓ | | 1 | ↓ | 1 | 0 | | | | | ↓ | 005 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/6/09 | Time above | Delivery by: Ryan Doherty | Date 3/7/09 | Time 1054 |
| Received by: pace | Date 3/7/09 | Time 1054 | Relinquished by: Ryan Doherty | Date 3/7/09 | Time 1054 |
| Received by: | Date T=2.8 | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: Acum / STS  Project # 1090640

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no  Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other  Temp Blank: Yes ✓ No

Thermometer Used 80344042 179425  Type of Ice: Wet Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.5°C  Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/7/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☒Yes ☐No ☐N/A | 16. 1 Methanol |
| Trip Blank Custody Seals Present | ☒Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): 102008-3 | | |

**Client Notification/ Resolution:**  Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CMY  Date: 3/9/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp.)

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07016.D
Report Date: 12-Mar-2009 16:10

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 8
Lab Smp Id: 1090641001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 17:23

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 4.162 | 18.7 | J |
| 2. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.055 | 20.3 | NJ |
| 3. | 62016-28-8 | Octane, 2,2,6-trimethyl- | 13.514 | 29.6 | NJ |
| 4. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.839 | 124 | NJ |
| 5. | | Unknown | 14.255 | 16.8 | J |
| 6. | 62237-96-1 | Decane, 2,2,5-trimethyl- | 15.000 | 17.7 | NJ |
| 7. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.170 | 60.2 | NJ |
| 8. | | Unknown | 15.551 | 45.6 | J |
| 9. | | Unknown | 15.606 | 49.8 | J |
| 10. | 17301-25-6 | Undecane, 2,8-dimethyl- | 15.902 | 33.6 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07016.D
Report Date: 12-Mar-2009 16:10

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07016.D
Lab Smp Id: 1090641001
Inj Date : 11-MAR-2009 17:23
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 8
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 16
Dil Factor: 1.25000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.250 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

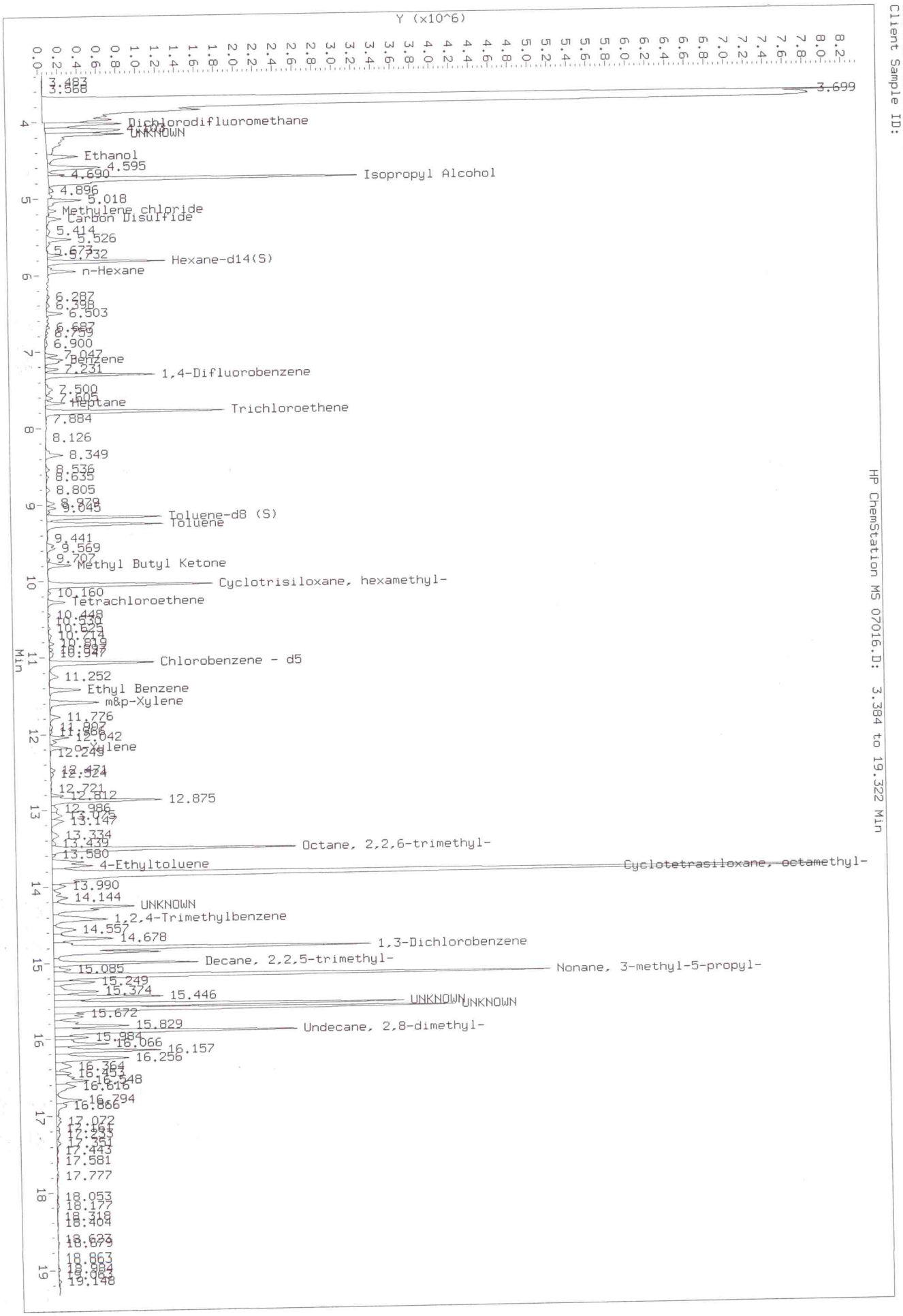
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2160223 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2397918 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 4.162 | 3227582 | 14.9409642 | 18.7 | 0 | | 0 | 35 |
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.055 | 3901590 | 16.2707338 | 20.3 | 91 | NBS75K.1 | 70586 | 50 |
| Octane, 2,2,6-trimethyl- | | | | CAS #: 62016-28-8 | | | |
| 13.514 | 5672102 | 23.6542734 | 29.6 | 72 | NBS75K.1 | 11599 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.839 | 23733709 | 98.9762905 | 124 | 86 | NBS75K.1 | 41966 | 50 |
| Unknown | | | | CAS #: | | | |
| 14.255 | 3217311 | 13.4170986 | 16.8 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07016.D
Report Date: 12-Mar-2009 16:10

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Decane, 2,2,5-trimethyl- | | | | CAS #: 62237-96-1 | | | |
| 15.000 | 3403040 | 14.1916427 | 17.7 | 72 | NBS75K.l | 18992 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.170 | 11559681 | 48.2071463 | 60.2 | 78 | NBS75K.l | 19054 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.551 | 8750168 | 36.4906776 | 45.6 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.606 | 9562813 | 39.8796407 | 49.8 | 0 | | 0 | 50 |
| Undecane, 2,8-dimethyl- | | | | CAS #: 17301-25-6 | | | |
| 15.902 | 6456187 | 26.9241297 | 33.6 | 72 | NBS75K.l | 18991 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07016.D
Injection Date: 11-MAR-2009 17:23
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07016.D: 3.384 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07017.D
Report Date: 12-Mar-2009 16:11

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 9
Lab Smp Id: 1090641002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 17:56

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.719 | 262 | J |
| 2. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.055 | 31.6 | NJ |
| 3. | | Unknown | 13.514 | 33.5 | J |
| 4. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.839 | 110 | NJ |
| 5. | | Unknown | 14.255 | 16.3 | J |
| 6. | 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.000 | 15.2 | NJ |
| 7. | | Unknown | 15.170 | 50.9 | J |
| 8. | | Unknown | 15.551 | 38.3 | J |
| 9. | | Unknown | 15.610 | 42.0 | J |
| 10. | | Unknown | 15.902 | 28.2 | J |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07017.D
Report Date: 12-Mar-2009 16:11

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07017.D
Lab Smp Id: 1090641002
Inj Date : 11-MAR-2009 17:56
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 9
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 17
Dil Factor: 1.25000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.250 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

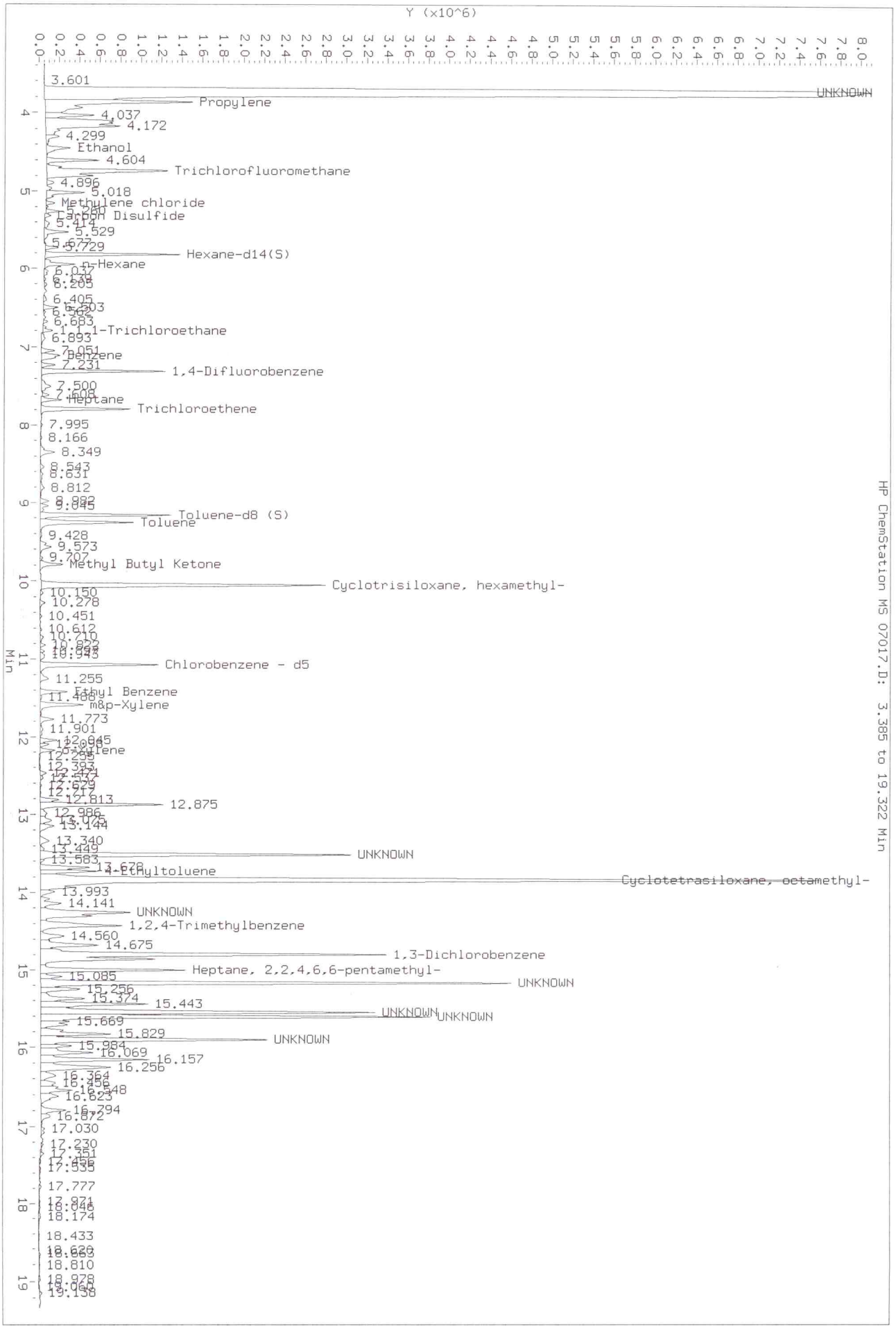
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2320694 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2578896 | 10.000 |

| | CONCENTRATIONS | | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.719 | 48641144 | 209.597319 | 262 | 0 | | 0 | 35 |
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.055 | 6526724 | 25.3082026 | 31.6 | 91 | NBS75K.l | 70586 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.514 | 6919289 | 26.8304232 | 33.5 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.839 | 22784115 | 88.3483053 | 110 | 86 | NBS75K.l | 41966 | 50 |
| Unknown | | | | CAS #: | | | |
| 14.255 | 3359595 | 13.0272554 | 16.3 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07017.D
Report Date: 12-Mar-2009 16:11

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Heptane, 2,2,4,6,6-pentamethyl- | | | | CAS #: 13475-82-6 | | | |
| 15.000 | 3135349 | 12.1577157 | 15.2 | 78 | NBS75K.l | 15367 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.170 | 10506761 | 40.7413011 | 50.9 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.551 | 7911792 | 30.6789809 | 38.3 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 8675655 | 33.6409549 | 42.0 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.902 | 5824393 | 22.5848252 | 28.2 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07017.D
Injection Date: 11-MAR-2009 17:56
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07017.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07018.D
Report Date: 12-Mar-2009 16:12

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 0
Lab Smp Id: 1090641003
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 18:28

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.699 | 320 | _J__ |
| 2. | | Unknown | 13.514 | 39.4 | _J__ |
| 3. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.839 | 145 | NJ__ |
| 4. | | Unknown | 14.259 | 21.4 | _J__ |
| 5. | 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.000 | 19.6 | NJ__ |
| 6. | | Unknown | 15.170 | 64.4 | _J__ |
| 7. | | Unknown | 15.554 | 46.6 | _J__ |
| 8. | | Unknown | 15.610 | 52.7 | _J__ |
| 9. | 17301-25-6 | Undecane, 2,8-dimethyl- | 15.905 | 35.3 | NJ__ |
| 10. | 629-62-9 | Pentadecane | 16.164 | 26.4 | NJ__ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07018.D
Report Date: 12-Mar-2009 16:12

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07018.D
Lab Smp Id: 1090641003
Inj Date : 11-MAR-2009 18:28
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 0
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 18
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

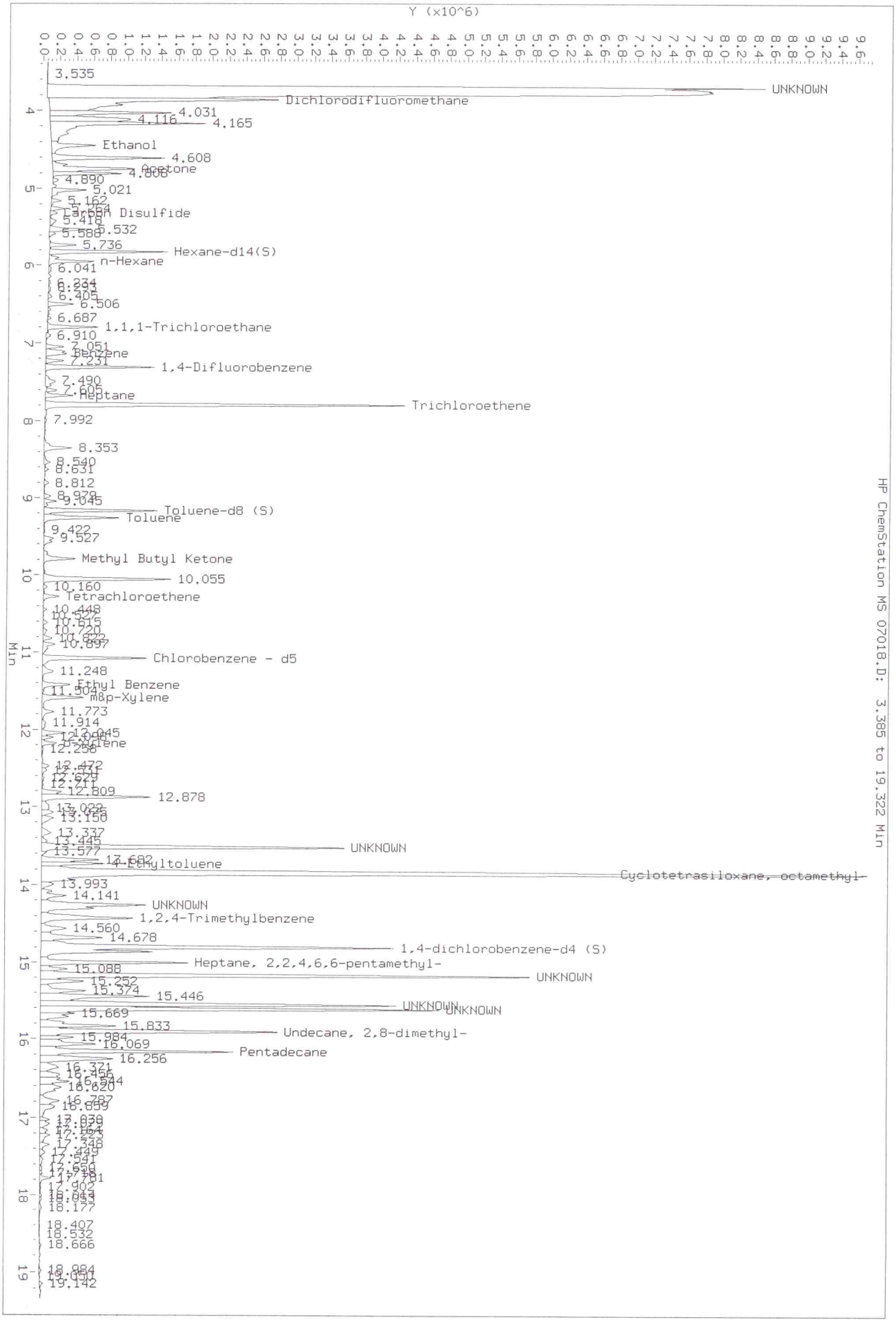
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2497900 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2828182 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.699 | 59603480 | 238.614276 | 320 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 13.514 | 8318141 | 29.4116176 | 39.4 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.839 | 30666957 | 108.433463 | 145 | 86 | NBS75K.l | 41966 | 50 |
| Unknown | | | | CAS #: | | | |
| 14.259 | 4514757 | 15.9634609 | 21.4 | 0 | | 0 | 50 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | CAS #: 13475-82-6 | | | |
| 15.000 | 4136189 | 14.6249050 | 19.6 | 78 | NBS75K.l | 68259 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07018.D
Report Date: 12-Mar-2009 16:12

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.170 | 13601271 | 48.0919238 | 64.4 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.554 | 9826781 | 34.7459277 | 46.6 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 11118270 | 39.3124282 | 52.7 | 0 | | 0 | 50 |
| Undecane, 2,8-dimethyl- | | | | CAS #: | 17301-25-6 | | |
| 15.905 | 7448863 | 26.3379901 | 35.3 | 78 | NBS75K.l | 18991 | 50 |
| Pentadecane | | | | CAS #: | 629-62-9 | | |
| 16.164 | 5583199 | 19.7413008 | 26.4 | 72 | NBS75K.l | 26001 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07018.D
Injection Date: 11-MAR-2009 18:28
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07018.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07019.D
Report Date: 12-Mar-2009 16:12

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1090641004
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 19:00

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.699 | 298 | J |
| 2. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.051 | 31.8 | NJ |
| 3. | | Unknown | 13.514 | 39.2 | J |
| 4. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.842 | 158 | NJ |
| 5. | 629-78-7 | Heptadecane | 14.259 | 21.9 | NJ |
| 6. | | Unknown | 15.003 | 22.6 | J |
| 7. | | Unknown | 15.174 | 73.6 | J |
| 8. | | Unknown | 15.554 | 53.7 | J |
| 9. | | Unknown | 15.610 | 62.4 | J |
| 10. | 17312-75-3 | Nonane, 5-methyl-5-propyl- | 15.905 | 40.2 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07019.D
Report Date: 12-Mar-2009 16:12

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07019.D
Lab Smp Id: 1090641004
Inj Date : 11-MAR-2009 19:00
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 1
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 19
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

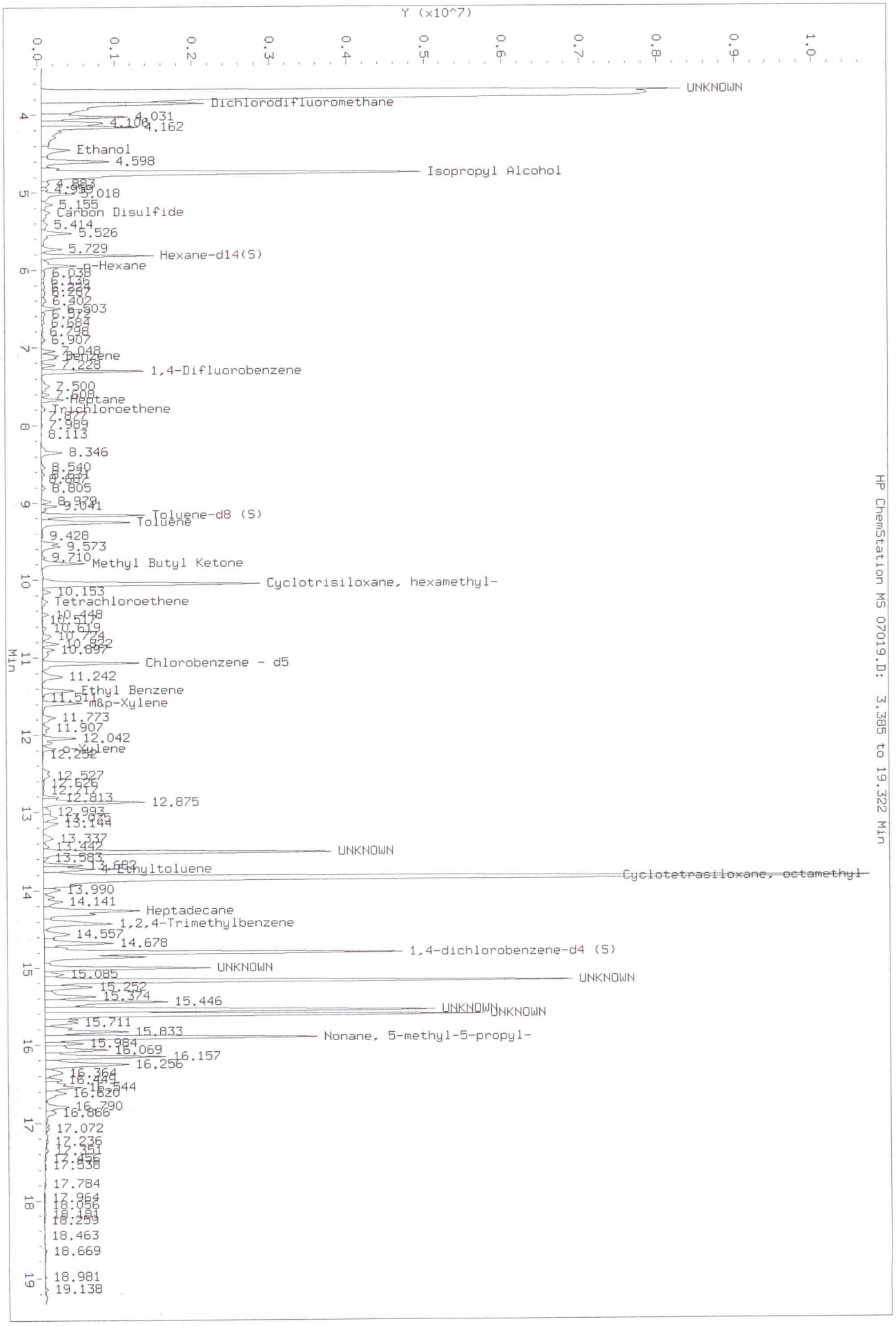
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2557949 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2929163 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.699 | 56926497 | 222.547350 | 298 | 0 | | 0 | 35 |
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.051 | 6943092 | 23.7033250 | 31.8 | 80 | NBS75K.1 | 27918 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.514 | 8562484 | 29.2318381 | 39.2 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.842 | 34485858 | 117.732777 | 158 | 86 | NBS75K.1 | 41966 | 50 |
| Heptadecane | | | | CAS #: 629-78-7 | | | |
| 14.259 | 4778709 | 16.3142437 | 21.9 | 78 | NBS75K.1 | 32063 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07019.D
Report Date: 12-Mar-2009 16:12

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.003 | 4934027 | 16.8444907 | 22.6 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.174 | 16083059 | 54.9066594 | 73.6 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.554 | 11738574 | 40.0748325 | 53.7 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 13636817 | 46.5553255 | 62.4 | 0 | | 0 | 50 |
| Nonane, 5-methyl-5-propyl- | | | | CAS #: 17312-75-3 | | | |
| 15.905 | 8792286 | 30.0163686 | 40.2 | 72 | NBS75K.l | 19057 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07019.D
Injection Date: 11-MAR-2009 19:00
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07019.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07020.D
Report Date: 12-Mar-2009 16:13

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 2
Lab Smp Id: 1090641005
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 19:33

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 4.099 | 6.24 | J |
| 2. | Unknown | 4.165 | 4.80 | J |
| 3. 96-37-7 | Cyclopentane, methyl- | 6.497 | 2.09 | NJ |
| 4. 111-84-2 | Nonane | 12.045 | 1.51 | NJ |
| 5. | Unknown | 13.511 | 7.69 | J |
| 6. 17312-55-9 | Decane, 3,8-dimethyl- | 14.256 | 2.96 | NJ |
| 7. 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.161 | 2.42 | NJ |
| 8. | Unknown | 15.538 | 1.80 | J |
| 9. | Unknown | 15.607 | 1.99 | J |
| 10. 629-50-5 | Tridecane | 16.161 | 2.60 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07020.D
Report Date: 12-Mar-2009 16:13

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07020.D
Lab Smp Id: 1090641005
Inj Date : 11-MAR-2009 19:33
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 2
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 20
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.307 | 2658342 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2756416 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 4.099 | 1238356 | 4.65837831 | 6.24 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.165 | 952190 | 3.58189231 | 4.80 | 0 | | 0 | 35 |
| Cyclopentane, methyl- | | | | CAS #: 96-37-7 | | | |
| 6.497 | 415347 | 1.56242898 | 2.09 | 72 | NBS75K.l | 594 | 35 |
| Nonane | | | | CAS #: 111-84-2 | | | |
| 12.045 | 310212 | 1.12541737 | 1.51 | 95 | NBS75K.l | 65143 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.511 | 1582067 | 5.73957795 | 7.69 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07020.D
Report Date: 12-Mar-2009 16:13

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUANT QUAL | LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Decane, 3,8-dimethyl- | | | | CAS #: 17312-55-9 | | | |
| 14.256 | 608757 | 2.20850882 | 2.96 | 78 | NBS75K.l | 68255 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.161 | 497407 | 1.80454194 | 2.42 | 83 | NBS75K.l | 19054 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.538 | 371340 | 1.34718424 | 1.80 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.607 | 408598 | 1.48235225 | 1.99 | 0 | | 0 | 50 |
| Tridecane | | | | CAS #: 629-50-5 | | | |
| 16.161 | 534554 | 1.93930666 | 2.60 | 90 | NBS75K.l | 18989 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07020.D
Injection Date: 11-MAR-2009 19:33
Instrument: 10air7.i
Client Sample ID:

HP ChemStation MS 07020.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07023.D
Report Date: 12-Mar-2009 16:14

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1090641006
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 21:10

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.716 | 223 | _J__ |
| 2. | 62108-32-1 | Heptane, 2,2,3,4,6,6-hexame | 13.514 | 25.1 | NJ__ |
| 3. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.836 | 33.8 | NJ__ |
| 4. | 2801-84-5 | Decane, 2,4-dimethyl- | 14.255 | 13.6 | NJ__ |
| 5. | 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.000 | 13.0 | NJ__ |
| 6. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.170 | 45.4 | NJ__ |
| 7. | 17302-32-8 | Nonane, 3,7-dimethyl- | 15.442 | 10.3 | NJ__ |
| 8. | | Unknown | 15.551 | 33.7 | _J__ |
| 9. | | Unknown | 15.606 | 35.0 | _J__ |
| 10. | | Unknown | 15.902 | 22.7 | _J__ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07023.D
Report Date: 12-Mar-2009 16:14

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07023.D
Lab Smp Id: 1090641006
Inj Date : 11-MAR-2009 21:10
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 23
Dil Factor: 1.25000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.250 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

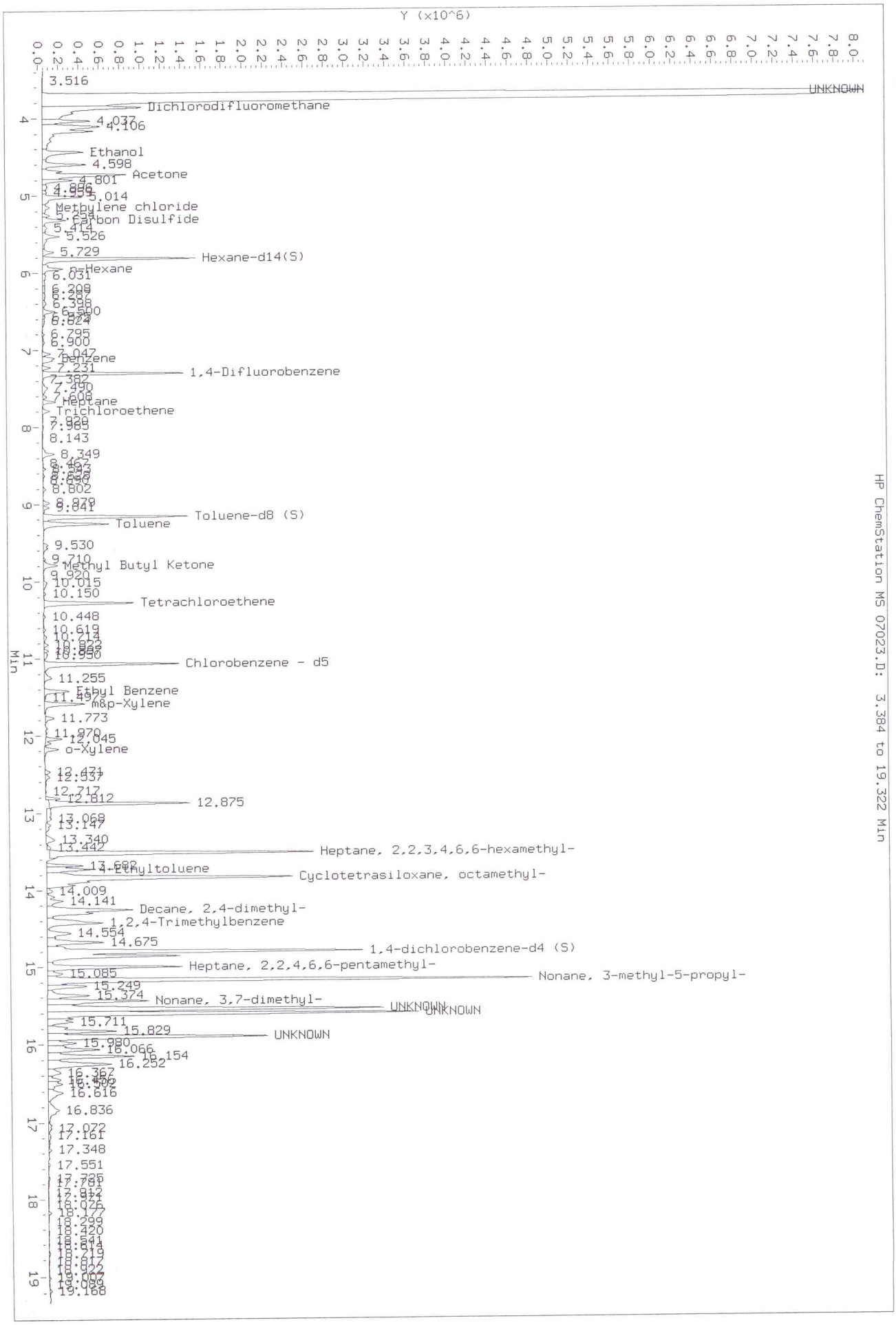
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2726812 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2929445 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.716 | 48648584 | 178.408280 | 223 | 0 | | 0 | 35 |
| Heptane, 2,2,3,4,6,6-hexamethyl- | | | | CAS #: 62108-32-1 | | | |
| 13.514 | 5880733 | 20.0745587 | 25.1 | 72 | NBS75K.l | 19044 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.836 | 7934352 | 27.0848234 | 33.8 | 72 | NBS75K.l | 41966 | 50 |
| Decane, 2,4-dimethyl- | | | | CAS #: 2801-84-5 | | | |
| 14.255 | 3184101 | 10.8692935 | 13.6 | 72 | NBS75K.l | 15360 | 50 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | CAS #: 13475-82-6 | | | |
| 15.000 | 3052744 | 10.4208913 | 13.0 | 78 | NBS75K.l | 15367 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07023.D
Report Date: 12-Mar-2009 16:14

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.170 | 10634444 | 36.3018985 | 45.4 | 78 | NBS75K.l | 19054 | 50 |
| Nonane, 3,7-dimethyl- | | | | CAS #: 17302-32-8 | | | |
| 15.442 | 2406009 | 8.21319001 | 10.3 | 80 | NBS75K.l | 11601 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.551 | 7903585 | 26.9797952 | 33.7 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.606 | 8214203 | 28.0401247 | 35.0 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.902 | 5311944 | 18.1329311 | 22.7 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07023.D
Injection Date: 11-MAR-2009 21:10
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07023.D: 3.384 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07022.D
Report Date: 12-Mar-2009 16:13

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 4
Lab Smp Id: 1090641007
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 11-MAR-2009 20:37

Client SDG: 031109.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. 75-07-0 | Acetaldehyde | 4.116 | 14.0 | NJ |
| 2. 62016-28-8 | Octane, 2,2,6-trimethyl- | 13.514 | 21.0 | NJ |
| 3. | Unknown | 13.836 | 48.7 | J |
| 4. | Unknown | 14.256 | 9.93 | J |
| 5. 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.000 | 10.6 | NJ |
| 6. 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.171 | 39.9 | NJ |
| 7. 3522-94-9 | Hexane, 2,2,5-trimethyl- | 15.551 | 26.7 | NJ |
| 8. | Unknown | 15.610 | 29.2 | J |
| 9. 62016-19-7 | Octane, 6-ethyl-2-methyl- | 15.902 | 22.4 | NJ |
| 10. 13151-34-3 | Decane, 3-methyl- | 16.154 | 9.80 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07022.D
Report Date: 12-Mar-2009 16:13

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\031109.b\07022.D
Lab Smp Id: 1090641007
Inj Date : 11-MAR-2009 20:37
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 4
Misc Info : 8228
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\031109.b\LOWTO15_069.m
Meth Date : 11-Mar-2009 09:59 dbrusky Quant Type: ISTD
Cal Date : 11-MAR-2009 09:13 Cal File: 07002.D
Als bottle: 22
Dil Factor: 1.18000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.180 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

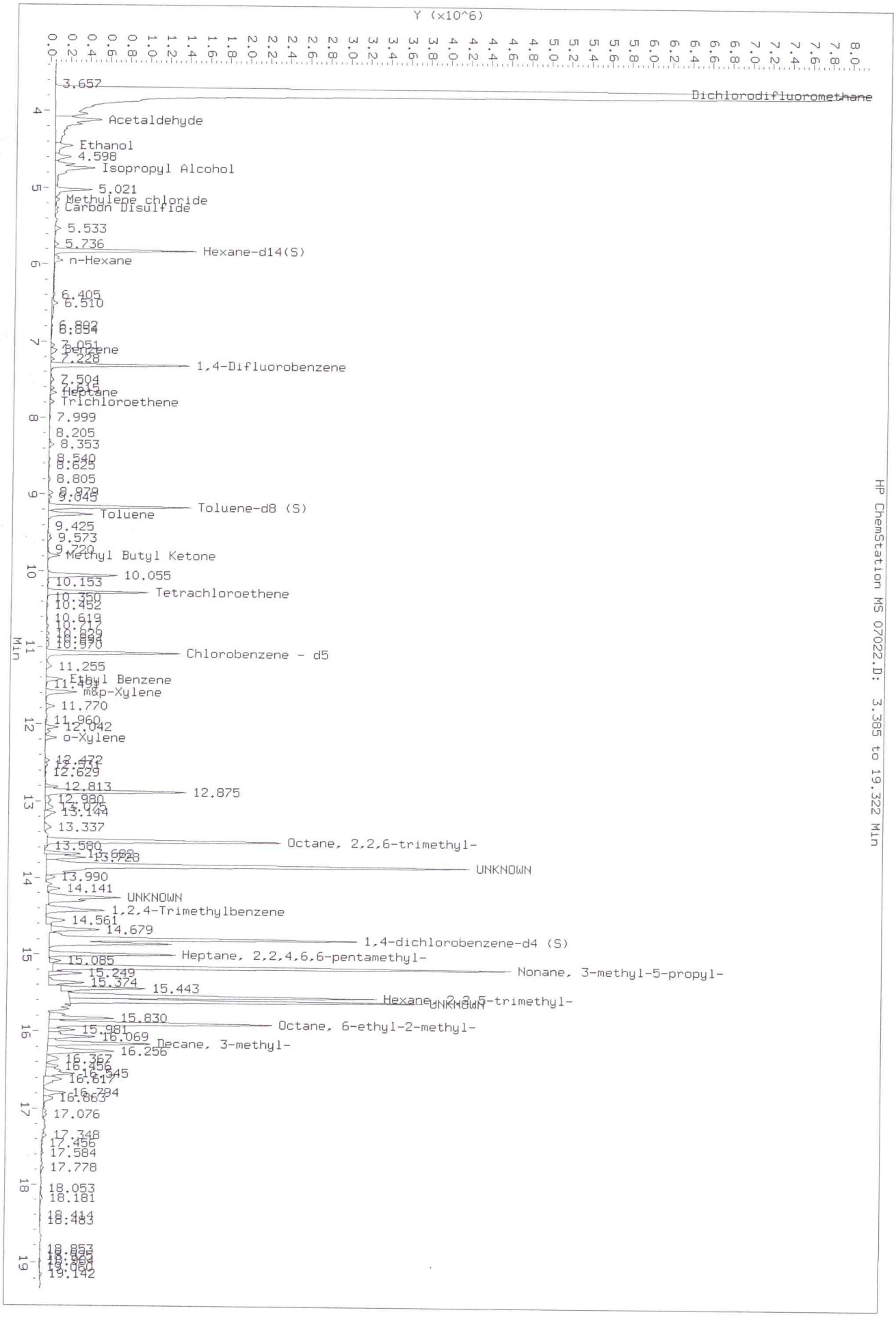
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2692725 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2920987 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Acetaldehyde | | | | | CAS #: 75-07-0 | | |
| 4.116 | 3191969 | 11.8540449 | 14.0 | 72 | NBS75K.l | 62265 | 35 |
| Octane, 2,2,6-trimethyl- | | | | | CAS #: 62016-28-8 | | |
| 13.514 | 5201757 | 17.8082108 | 21.0 | 72 | NBS75K.l | 11599 | 50 |
| Unknown | | | | | CAS #: | | |
| 13.836 | 12045917 | 41.2391896 | 48.7 | 0 | | 0 | 50 |
| Unknown | | | | | CAS #: | | |
| 14.256 | 2458991 | 8.41835252 | 9.93 | 0 | | 0 | 50 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | | CAS #: 13475-82-6 | | |
| 15.000 | 2632441 | 9.01216007 | 10.6 | 78 | NBS75K.l | 68259 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07022.D
Report Date: 12-Mar-2009 16:13

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Nonane, 3-methyl-5-propyl- | | | | | CAS #: 31081-18-2 | | |
| 15.171 | 9888101 | 33.8519084 | 39.9 | 78 | NBS75K.l | 19054 | 50 |
| Hexane, 2,2,5-trimethyl- | | | | | CAS #: 3522-94-9 | | |
| 15.551 | 6609302 | 22.6269400 | 26.7 | 72 | NBS75K.l | 5149 | 50 |
| Unknown | | | | | CAS #: | | |
| 15.610 | 7238116 | 24.7796846 | 29.2 | 0 | | 0 | 50 |
| Octane, 6-ethyl-2-methyl- | | | | | CAS #: 62016-19-7 | | |
| 15.902 | 5557567 | 19.0263270 | 22.4 | 72 | NBS75K.l | 11609 | 50 |
| Decane, 3-methyl- | | | | | CAS #: 13151-34-3 | | |
| 16.154 | 2427144 | 8.30932719 | 9.80 | 74 | NBS75K.l | 11604 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\031109.b\07022.D
Injection Date: 11-MAR-2009 20:37
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 07022.D: 3.385 to 19.322 Min

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 16, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1090641

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 07, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1090641001** | **VP-3340 Gorham #1 (8')** | Air | 03/06/09 08:50 | 03/07/09 10:55 |
| **1090641002** | **VP-3340 Gorham #3 (8')** | Air | 03/06/09 09:28 | 03/07/09 10:55 |
| **1090641003** | **VP-3326 Gorham #1 (8')** | Air | 03/06/09 12:12 | 03/07/09 10:55 |
| **1090641004** | **VP-3326 Gorham #2 (8')** | Air | 03/06/09 15:22 | 03/07/09 10:55 |
| **1090641005** | **VP-Equipment Blank #1** | Air | 03/06/09 15:30 | 03/07/09 10:55 |
| **1090641006** | **VP-3326 Gorham #3 (8')** | Air | 03/06/09 16:07 | 03/07/09 10:55 |
| **1090641007** | **VP-3326 Gorham #33 (8')** | Air | 03/06/09 16:13 | 03/07/09 10:55 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1090641001** | **VP-3340 Gorham #1 (8')** | TO-15 | DB1 | 60 |
| **1090641002** | **VP-3340 Gorham #3 (8')** | TO-15 | DB1 | 60 |
| **1090641003** | **VP-3326 Gorham #1 (8')** | TO-15 | DB1 | 60 |
| **1090641004** | **VP-3326 Gorham #2 (8')** | TO-15 | DB1 | 60 |
| **1090641005** | **VP-Equipment Blank #1** | TO-15 | DB1 | 60 |
| **1090641006** | **VP-3326 Gorham #3 (8')** | TO-15 | DB1 | 60 |
| **1090641007** | **VP-3326 Gorham #33 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 16, 2009

**General Information:**
7 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8228

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- DUP (Lab ID: 592870)
  - Ethanol
- LCS (Lab ID: 592417)
  - Ethanol
- VP-3326 Gorham #1 (8') (Lab ID: 1090641003)
  - Ethanol
- VP-3326 Gorham #2 (8') (Lab ID: 1090641004)
  - Ethanol
- VP-3326 Gorham #3 (8') (Lab ID: 1090641006)
  - Ethanol
- VP-3326 Gorham #33 (8') (Lab ID: 1090641007)
  - Ethanol
- VP-3340 Gorham #1 (8') (Lab ID: 1090641001)
  - Ethanol
- VP-3340 Gorham #3 (8') (Lab ID: 1090641002)
  - Ethanol
- VP-Equipment Blank #1 (Lab ID: 1090641005)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** March 16, 2009

QC Batch: AIR/8228

R1: RPD value was outside control limits.

- DUP (Lab ID: 592870)
  - Ethanol

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

- VP-3340 Gorham #1 (8') (Lab ID: 1090641001)
- VP-3340 Gorham #3 (8') (Lab ID: 1090641002)
- VP-3326 Gorham #1 (8') (Lab ID: 1090641003)
- VP-3326 Gorham #2 (8') (Lab ID: 1090641004)
- VP-Equipment Blank #1 (Lab ID: 1090641005)
- VP-3326 Gorham #3 (8') (Lab ID: 1090641006)
- VP-3326 Gorham #33 (8') (Lab ID: 1090641007)

Analyte Comments:

QC Batch: AIR/8228

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- VP-3326 Gorham #1 (8') (Lab ID: 1090641003)
  - 2-Propanol
  - Ethanol
- VP-3326 Gorham #2 (8') (Lab ID: 1090641004)
  - 2-Propanol
  - Ethanol
  - Acetone
- VP-3326 Gorham #3 (8') (Lab ID: 1090641006)
  - Ethanol
- VP-3340 Gorham #1 (8') (Lab ID: 1090641001)
  - 2-Propanol
  - Ethanol
- VP-3340 Gorham #3 (8') (Lab ID: 1090641002)
  - 2-Propanol

This data package has been reviewed for quality and completeness and is approved for release.



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Minneapolis, MN 55414
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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3340 Gorham #1 (8')** **Lab ID: 1090641001** Collected: 03/06/09 08:50 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | ND | ug/m3 | 0.60 | 0.30 | 1.25 | | 03/11/09 17:23 | 67-64-1 | |
| Benzene | **5.7** | ug/m3 | 0.81 | 0.41 | 1.25 | | 03/11/09 17:23 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:23 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.6 | 1.3 | 1.25 | | 03/11/09 17:23 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 0.99 | 0.49 | 1.25 | | 03/11/09 17:23 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.56 | 0.28 | 1.25 | | 03/11/09 17:23 | 106-99-0 | |
| 2-Butanone (MEK) | **3.1** | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 17:23 | 78-93-3 | |
| Carbon disulfide | **1.1** | ug/m3 | 0.79 | 0.39 | 1.25 | | 03/11/09 17:23 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.6 | 0.81 | 1.25 | | 03/11/09 17:23 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 17:23 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.68 | 0.34 | 1.25 | | 03/11/09 17:23 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:23 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.52 | 0.26 | 1.25 | | 03/11/09 17:23 | 74-87-3 | |
| Cyclohexane | **4.8** | ug/m3 | 0.85 | 0.42 | 1.25 | | 03/11/09 17:23 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.1 | 1.1 | 1.25 | | 03/11/09 17:23 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 17:23 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:23 | 95-50-1 | |
| 1,3-Dichlorobenzene | **16.9** | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:23 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:23 | 106-46-7 | |
| Dichlorodifluoromethane | **5.9** | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:23 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:23 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:23 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:23 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:23 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:23 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 17:23 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 17:23 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 17:23 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:23 | 76-14-2 | |
| Ethanol | **27.2** | ug/m3 | 2.4 | 1.1 | 1.25 | | 03/11/09 17:23 | 64-17-5 | E,SS |
| Ethyl acetate | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 17:23 | 141-78-6 | |
| Ethylbenzene | **8.3** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 17:23 | 100-41-4 | |
| 4-Ethyltoluene | **4.9** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:23 | 622-96-8 | |
| n-Heptane | **7.2** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:23 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.8 | 1.4 | 1.25 | | 03/11/09 17:23 | 87-68-3 | |
| n-Hexane | **10.3** | ug/m3 | 0.90 | 0.45 | 1.25 | | 03/11/09 17:23 | 110-54-3 | |
| 2-Hexanone | **5.4** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:23 | 591-78-6 | |
| Methylene Chloride | **3.0** | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 17:23 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:23 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 17:23 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.4 | 1.7 | 1.25 | | 03/11/09 17:23 | 91-20-3 | |
| 2-Propanol | **219** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:23 | 67-63-0 | E |
| Propylene | ND | ug/m3 | 0.44 | 0.22 | 1.25 | | 03/11/09 17:23 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.1 | 0.54 | 1.25 | | 03/11/09 17:23 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:23 | 79-34-5 | |
| Tetrachloroethene | **7.0** | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:23 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3340 Gorham #1 (8')** **Lab ID: 1090641001** Collected: 03/06/09 08:50 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 17:23 | 109-99-9 | |
| Toluene | **36.0** | ug/m3 | 0.96 | 0.48 | 1.25 | | 03/11/09 17:23 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:23 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:23 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:23 | 79-00-5 | |
| Trichloroethene | **81.0** | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:23 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:23 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 17:23 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **17.5** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:23 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:23 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 17:23 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.65 | 0.32 | 1.25 | | 03/11/09 17:23 | 75-01-4 | |
| m&p-Xylene | **17.3** | ug/m3 | 2.2 | 1.1 | 1.25 | | 03/11/09 17:23 | 1330-20-7 | |
| o-Xylene | **5.4** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 17:23 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3340 Gorham #3 (8')** **Lab ID: 1090641002** Collected: 03/06/09 09:28 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **55.4** | ug/m3 | 0.60 | 0.30 | 1.25 | | 03/11/09 17:56 | 67-64-1 | |
| Benzene | **5.2** | ug/m3 | 0.81 | 0.41 | 1.25 | | 03/11/09 17:56 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:56 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.6 | 1.3 | 1.25 | | 03/11/09 17:56 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 0.99 | 0.49 | 1.25 | | 03/11/09 17:56 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.56 | 0.28 | 1.25 | | 03/11/09 17:56 | 106-99-0 | |
| 2-Butanone (MEK) | **3.0** | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 17:56 | 78-93-3 | |
| Carbon disulfide | **3.5** | ug/m3 | 0.79 | 0.39 | 1.25 | | 03/11/09 17:56 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.6 | 0.81 | 1.25 | | 03/11/09 17:56 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 17:56 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.68 | 0.34 | 1.25 | | 03/11/09 17:56 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:56 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.52 | 0.26 | 1.25 | | 03/11/09 17:56 | 74-87-3 | |
| Cyclohexane | **4.0** | ug/m3 | 0.85 | 0.42 | 1.25 | | 03/11/09 17:56 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.1 | 1.1 | 1.25 | | 03/11/09 17:56 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 17:56 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:56 | 95-50-1 | |
| 1,3-Dichlorobenzene | **34.4** | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:56 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 17:56 | 106-46-7 | |
| Dichlorodifluoromethane | **2.8** | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:56 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:56 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:56 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:56 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:56 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 17:56 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 17:56 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 17:56 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 17:56 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:56 | 76-14-2 | |
| Ethanol | **21.1** | ug/m3 | 2.4 | 1.1 | 1.25 | | 03/11/09 17:56 | 64-17-5 | SS |
| Ethyl acetate | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 17:56 | 141-78-6 | |
| Ethylbenzene | **6.3** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 17:56 | 100-41-4 | |
| 4-Ethyltoluene | **7.5** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:56 | 622-96-8 | |
| n-Heptane | **6.1** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:56 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.8 | 1.4 | 1.25 | | 03/11/09 17:56 | 87-68-3 | |
| n-Hexane | **9.8** | ug/m3 | 0.90 | 0.45 | 1.25 | | 03/11/09 17:56 | 110-54-3 | |
| 2-Hexanone | **4.6** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:56 | 591-78-6 | |
| Methylene Chloride | **3.9** | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 17:56 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 17:56 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 17:56 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.4 | 1.7 | 1.25 | | 03/11/09 17:56 | 91-20-3 | |
| 2-Propanol | **41.8** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:56 | 67-63-0 | E |
| Propylene | **41.0** | ug/m3 | 0.44 | 0.22 | 1.25 | | 03/11/09 17:56 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.1 | 0.54 | 1.25 | | 03/11/09 17:56 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:56 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 17:56 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3340 Gorham #3 (8')** **Lab ID: 1090641002** Collected: 03/06/09 09:28 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 17:56 | 109-99-9 | |
| Toluene | **25.7** | ug/m3 | 0.96 | 0.48 | 1.25 | | 03/11/09 17:56 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 17:56 | 120-82-1 | |
| 1,1,1-Trichloroethane | **4.7** | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:56 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:56 | 79-00-5 | |
| Trichloroethene | **35.6** | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:56 | 79-01-6 | |
| Trichlorofluoromethane | **1.5** | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 17:56 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 17:56 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **23.8** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:56 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 17:56 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 17:56 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.65 | 0.32 | 1.25 | | 03/11/09 17:56 | 75-01-4 | |
| m&p-Xylene | **12.5** | ug/m3 | 2.2 | 1.1 | 1.25 | | 03/11/09 17:56 | 1330-20-7 | |
| o-Xylene | **4.3** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 17:56 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #1 (8')** **Lab ID: 1090641003** Collected: 03/06/09 12:12 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **33.0** | ug/m3 | 0.64 | 0.32 | 1.34 | | 03/11/09 18:28 | 67-64-1 | |
| Benzene | **6.4** | ug/m3 | 0.87 | 0.44 | 1.34 | | 03/11/09 18:28 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 18:28 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 03/11/09 18:28 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 03/11/09 18:28 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 03/11/09 18:28 | 106-99-0 | |
| 2-Butanone (MEK) | **6.0** | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 18:28 | 78-93-3 | |
| Carbon disulfide | **5.4** | ug/m3 | 0.84 | 0.42 | 1.34 | | 03/11/09 18:28 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 03/11/09 18:28 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 18:28 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 03/11/09 18:28 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 18:28 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 03/11/09 18:28 | 74-87-3 | |
| Cyclohexane | **8.0** | ug/m3 | 0.91 | 0.46 | 1.34 | | 03/11/09 18:28 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 03/11/09 18:28 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 18:28 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 18:28 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 18:28 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 18:28 | 106-46-7 | |
| Dichlorodifluoromethane | **2.9** | ug/m3 | 1.3 | 0.67 | 1.34 | | 03/11/09 18:28 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 18:28 | 75-34-3 | |
| 1,2-Dichloroethane | **1.6** | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 18:28 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 18:28 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 18:28 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 18:28 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 18:28 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 18:28 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 18:28 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 18:28 | 76-14-2 | |
| Ethanol | **41.5** | ug/m3 | 2.5 | 1.1 | 1.34 | | 03/11/09 18:28 | 64-17-5 | E,SS |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 18:28 | 141-78-6 | |
| Ethylbenzene | **7.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 18:28 | 100-41-4 | |
| 4-Ethyltoluene | **9.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 18:28 | 622-96-8 | |
| n-Heptane | **10.5** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 18:28 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 03/11/09 18:28 | 87-68-3 | |
| n-Hexane | **17.5** | ug/m3 | 0.96 | 0.48 | 1.34 | | 03/11/09 18:28 | 110-54-3 | |
| 2-Hexanone | **7.6** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 18:28 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 18:28 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 18:28 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 18:28 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 03/11/09 18:28 | 91-20-3 | |
| 2-Propanol | **40.1** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 18:28 | 67-63-0 | E |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 03/11/09 18:28 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 03/11/09 18:28 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 18:28 | 79-34-5 | |
| Tetrachloroethene | **6.9** | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 18:28 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #1 (8')** **Lab ID: 1090641003** Collected: 03/06/09 12:12 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 18:28 | 109-99-9 | |
| Toluene | **25.0** | ug/m3 | 1.0 | 0.52 | 1.34 | | 03/11/09 18:28 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 18:28 | 120-82-1 | |
| 1,1,1-Trichloroethane | **27.6** | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 18:28 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 18:28 | 79-00-5 | |
| Trichloroethene | **181** | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 18:28 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 18:28 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 18:28 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **33.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 18:28 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 18:28 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 18:28 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 03/11/09 18:28 | 75-01-4 | |
| m&p-Xylene | **14.7** | ug/m3 | 2.4 | 1.2 | 1.34 | | 03/11/09 18:28 | 1330-20-7 | |
| o-Xylene | **5.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 18:28 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #2 (8')** **Lab ID: 1090641004** Collected: 03/06/09 15:22 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **143** | ug/m3 | 0.64 | 0.32 | 1.34 | | 03/11/09 19:00 | 67-64-1 | E |
| Benzene | **6.1** | ug/m3 | 0.87 | 0.44 | 1.34 | | 03/11/09 19:00 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:00 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 03/11/09 19:00 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 03/11/09 19:00 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 03/11/09 19:00 | 106-99-0 | |
| 2-Butanone (MEK) | **3.2** | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 19:00 | 78-93-3 | |
| Carbon disulfide | **2.1** | ug/m3 | 0.84 | 0.42 | 1.34 | | 03/11/09 19:00 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 03/11/09 19:00 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 19:00 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 03/11/09 19:00 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 19:00 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 03/11/09 19:00 | 74-87-3 | |
| Cyclohexane | **6.0** | ug/m3 | 0.91 | 0.46 | 1.34 | | 03/11/09 19:00 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 03/11/09 19:00 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 19:00 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:00 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:00 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:00 | 106-46-7 | |
| Dichlorodifluoromethane | **2.5** | ug/m3 | 1.3 | 0.67 | 1.34 | | 03/11/09 19:00 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 19:00 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 19:00 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:00 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:00 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:00 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 19:00 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 19:00 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 19:00 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:00 | 76-14-2 | |
| Ethanol | **27.2** | ug/m3 | 2.5 | 1.1 | 1.34 | | 03/11/09 19:00 | 64-17-5 | E,SS |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 19:00 | 141-78-6 | |
| Ethylbenzene | **8.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 19:00 | 100-41-4 | |
| 4-Ethyltoluene | **7.6** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:00 | 622-96-8 | |
| n-Heptane | **8.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:00 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 03/11/09 19:00 | 87-68-3 | |
| n-Hexane | **13.0** | ug/m3 | 0.96 | 0.48 | 1.34 | | 03/11/09 19:00 | 110-54-3 | |
| 2-Hexanone | **12.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:00 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 19:00 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:00 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 19:00 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 03/11/09 19:00 | 91-20-3 | |
| 2-Propanol | **335** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:00 | 67-63-0 | E |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 03/11/09 19:00 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 03/11/09 19:00 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:00 | 79-34-5 | |
| Tetrachloroethene | **2.7** | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:00 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #2 (8')** **Lab ID: 1090641004** Collected: 03/06/09 15:22 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 19:00 | 109-99-9 | |
| Toluene | **30.9** | ug/m3 | 1.0 | 0.52 | 1.34 | | 03/11/09 19:00 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 19:00 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:00 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:00 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:00 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:00 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 19:00 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **25.7** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:00 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:00 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 19:00 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 03/11/09 19:00 | 75-01-4 | |
| m&p-Xylene | **15.1** | ug/m3 | 2.4 | 1.2 | 1.34 | | 03/11/09 19:00 | 1330-20-7 | |
| o-Xylene | **5.0** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 19:00 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-Equipment Blank #1** **Lab ID: 1090641005** Collected: 03/06/09 15:30 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **10.6** | ug/m3 | 0.64 | 0.32 | 1.34 | | 03/11/09 19:33 | 67-64-1 | |
| Benzene | **1.3** | ug/m3 | 0.87 | 0.44 | 1.34 | | 03/11/09 19:33 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:33 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 03/11/09 19:33 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 03/11/09 19:33 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 03/11/09 19:33 | 106-99-0 | |
| 2-Butanone (MEK) | **1.5** | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 19:33 | 78-93-3 | |
| Carbon disulfide | ND | ug/m3 | 0.84 | 0.42 | 1.34 | | 03/11/09 19:33 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 03/11/09 19:33 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 19:33 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 03/11/09 19:33 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 19:33 | 67-66-3 | |
| Chloromethane | **0.92** | ug/m3 | 0.56 | 0.28 | 1.34 | | 03/11/09 19:33 | 74-87-3 | |
| Cyclohexane | **3.2** | ug/m3 | 0.91 | 0.46 | 1.34 | | 03/11/09 19:33 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 03/11/09 19:33 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 19:33 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:33 | 95-50-1 | |
| 1,3-Dichlorobenzene | **16.5** | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:33 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 03/11/09 19:33 | 106-46-7 | |
| Dichlorodifluoromethane | **2.4** | ug/m3 | 1.3 | 0.67 | 1.34 | | 03/11/09 19:33 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 19:33 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 03/11/09 19:33 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:33 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:33 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 03/11/09 19:33 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 03/11/09 19:33 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 19:33 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 03/11/09 19:33 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:33 | 76-14-2 | |
| Ethanol | **8.1** | ug/m3 | 2.5 | 1.1 | 1.34 | | 03/11/09 19:33 | 64-17-5 | SS |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 19:33 | 141-78-6 | |
| Ethylbenzene | **1.9** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 19:33 | 100-41-4 | |
| 4-Ethyltoluene | **3.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:33 | 622-96-8 | |
| n-Heptane | **2.2** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:33 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 03/11/09 19:33 | 87-68-3 | |
| n-Hexane | **3.6** | ug/m3 | 0.96 | 0.48 | 1.34 | | 03/11/09 19:33 | 110-54-3 | |
| 2-Hexanone | **1.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:33 | 591-78-6 | |
| Methylene Chloride | **15.8** | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 19:33 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 03/11/09 19:33 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 03/11/09 19:33 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 03/11/09 19:33 | 91-20-3 | |
| 2-Propanol | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:33 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 03/11/09 19:33 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 03/11/09 19:33 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:33 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 03/11/09 19:33 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-Equipment Blank #1** **Lab ID: 1090641005** Collected: 03/06/09 15:30 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 03/11/09 19:33 | 109-99-9 | |
| Toluene | **12.0** | ug/m3 | 1.0 | 0.52 | 1.34 | | 03/11/09 19:33 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 03/11/09 19:33 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:33 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:33 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:33 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 03/11/09 19:33 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 03/11/09 19:33 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **13.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:33 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 03/11/09 19:33 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 03/11/09 19:33 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 03/11/09 19:33 | 75-01-4 | |
| m&p-Xylene | **7.7** | ug/m3 | 2.4 | 1.2 | 1.34 | | 03/11/09 19:33 | 1330-20-7 | |
| o-Xylene | **2.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 03/11/09 19:33 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #3 (8')** **Lab ID: 1090641006** Collected: 03/06/09 16:07 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **36.1** | ug/m3 | 0.60 | 0.30 | 1.25 | | 03/11/09 21:10 | 67-64-1 | |
| Benzene | **3.0** | ug/m3 | 0.81 | 0.41 | 1.25 | | 03/11/09 21:10 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 21:10 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.6 | 1.3 | 1.25 | | 03/11/09 21:10 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 0.99 | 0.49 | 1.25 | | 03/11/09 21:10 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.56 | 0.28 | 1.25 | | 03/11/09 21:10 | 106-99-0 | |
| 2-Butanone (MEK) | **1.6** | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 21:10 | 78-93-3 | |
| Carbon disulfide | **11.2** | ug/m3 | 0.79 | 0.39 | 1.25 | | 03/11/09 21:10 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.6 | 0.81 | 1.25 | | 03/11/09 21:10 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 21:10 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.68 | 0.34 | 1.25 | | 03/11/09 21:10 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 21:10 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.52 | 0.26 | 1.25 | | 03/11/09 21:10 | 74-87-3 | |
| Cyclohexane | **2.4** | ug/m3 | 0.85 | 0.42 | 1.25 | | 03/11/09 21:10 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.1 | 1.1 | 1.25 | | 03/11/09 21:10 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 21:10 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 21:10 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 21:10 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.25 | | 03/11/09 21:10 | 106-46-7 | |
| Dichlorodifluoromethane | **2.6** | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 21:10 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 21:10 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 21:10 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 21:10 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 21:10 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.0 | 0.51 | 1.25 | | 03/11/09 21:10 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.2 | 0.59 | 1.25 | | 03/11/09 21:10 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 21:10 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.58 | 1.25 | | 03/11/09 21:10 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 21:10 | 76-14-2 | |
| Ethanol | **29.4** | ug/m3 | 2.4 | 1.1 | 1.25 | | 03/11/09 21:10 | 64-17-5 | E,SS |
| Ethyl acetate | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 21:10 | 141-78-6 | |
| Ethylbenzene | **4.9** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 21:10 | 100-41-4 | |
| 4-Ethyltoluene | **4.6** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 21:10 | 622-96-8 | |
| n-Heptane | **3.5** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 21:10 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.8 | 1.4 | 1.25 | | 03/11/09 21:10 | 87-68-3 | |
| n-Hexane | **5.1** | ug/m3 | 0.90 | 0.45 | 1.25 | | 03/11/09 21:10 | 110-54-3 | |
| 2-Hexanone | **2.8** | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 21:10 | 591-78-6 | |
| Methylene Chloride | **1.0** | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 21:10 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.0 | 0.52 | 1.25 | | 03/11/09 21:10 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.91 | 0.46 | 1.25 | | 03/11/09 21:10 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.4 | 1.7 | 1.25 | | 03/11/09 21:10 | 91-20-3 | |
| 2-Propanol | ND | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 21:10 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.44 | 0.22 | 1.25 | | 03/11/09 21:10 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.1 | 0.54 | 1.25 | | 03/11/09 21:10 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 21:10 | 79-34-5 | |
| Tetrachloroethene | **29.3** | ug/m3 | 1.8 | 0.88 | 1.25 | | 03/11/09 21:10 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #3 (8')** **Lab ID: 1090641006** Collected: 03/06/09 16:07 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.75 | 0.38 | 1.25 | | 03/11/09 21:10 | 109-99-9 | |
| Toluene | **15.7** | ug/m3 | 0.96 | 0.48 | 1.25 | | 03/11/09 21:10 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.2 | 0.62 | 1.25 | | 03/11/09 21:10 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 21:10 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 21:10 | 79-00-5 | |
| Trichloroethene | **2.2** | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 21:10 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.4 | 0.69 | 1.25 | | 03/11/09 21:10 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.0 | 1.0 | 1.25 | | 03/11/09 21:10 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **13.9** | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 21:10 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.1 | 1.6 | 1.25 | | 03/11/09 21:10 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.89 | 0.44 | 1.25 | | 03/11/09 21:10 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.65 | 0.32 | 1.25 | | 03/11/09 21:10 | 75-01-4 | |
| m&p-Xylene | **10.8** | ug/m3 | 2.2 | 1.1 | 1.25 | | 03/11/09 21:10 | 1330-20-7 | |
| o-Xylene | **3.6** | ug/m3 | 1.1 | 0.55 | 1.25 | | 03/11/09 21:10 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #33 (8')** **Lab ID: 1090641007** Collected: 03/06/09 16:13 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **16.6** | ug/m3 | 0.57 | 0.28 | 1.18 | | 03/11/09 20:37 | 67-64-1 | |
| Benzene | **1.5** | ug/m3 | 0.77 | 0.38 | 1.18 | | 03/11/09 20:37 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.7 | 0.83 | 1.18 | | 03/11/09 20:37 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.5 | 1.2 | 1.18 | | 03/11/09 20:37 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 0.93 | 0.47 | 1.18 | | 03/11/09 20:37 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.53 | 0.27 | 1.18 | | 03/11/09 20:37 | 106-99-0 | |
| 2-Butanone (MEK) | **1.9** | ug/m3 | 0.71 | 0.35 | 1.18 | | 03/11/09 20:37 | 78-93-3 | |
| Carbon disulfide | **1.1** | ug/m3 | 0.74 | 0.37 | 1.18 | | 03/11/09 20:37 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.5 | 0.77 | 1.18 | | 03/11/09 20:37 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.1 | 0.55 | 1.18 | | 03/11/09 20:37 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.64 | 0.32 | 1.18 | | 03/11/09 20:37 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.2 | 0.58 | 1.18 | | 03/11/09 20:37 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.50 | 0.25 | 1.18 | | 03/11/09 20:37 | 74-87-3 | |
| Cyclohexane | **1.1** | ug/m3 | 0.80 | 0.40 | 1.18 | | 03/11/09 20:37 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.0 | 1.0 | 1.18 | | 03/11/09 20:37 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 1.9 | 0.94 | 1.18 | | 03/11/09 20:37 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.4 | 0.71 | 1.18 | | 03/11/09 20:37 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.4 | 0.71 | 1.18 | | 03/11/09 20:37 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.4 | 0.71 | 1.18 | | 03/11/09 20:37 | 106-46-7 | |
| Dichlorodifluoromethane | **2.5** | ug/m3 | 1.2 | 0.59 | 1.18 | | 03/11/09 20:37 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 0.97 | 0.48 | 1.18 | | 03/11/09 20:37 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 0.97 | 0.48 | 1.18 | | 03/11/09 20:37 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 0.96 | 0.48 | 1.18 | | 03/11/09 20:37 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 0.96 | 0.48 | 1.18 | | 03/11/09 20:37 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 0.96 | 0.48 | 1.18 | | 03/11/09 20:37 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.1 | 0.55 | 1.18 | | 03/11/09 20:37 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.1 | 0.54 | 1.18 | | 03/11/09 20:37 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.1 | 0.54 | 1.18 | | 03/11/09 20:37 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.7 | 0.83 | 1.18 | | 03/11/09 20:37 | 76-14-2 | |
| Ethanol | **9.4** | ug/m3 | 2.2 | 1.0 | 1.18 | | 03/11/09 20:37 | 64-17-5 | SS |
| Ethyl acetate | ND | ug/m3 | 0.86 | 0.43 | 1.18 | | 03/11/09 20:37 | 141-78-6 | |
| Ethylbenzene | **3.2** | ug/m3 | 1.0 | 0.52 | 1.18 | | 03/11/09 20:37 | 100-41-4 | |
| 4-Ethyltoluene | **3.4** | ug/m3 | 3.0 | 1.5 | 1.18 | | 03/11/09 20:37 | 622-96-8 | |
| n-Heptane | **1.6** | ug/m3 | 0.98 | 0.49 | 1.18 | | 03/11/09 20:37 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.6 | 1.3 | 1.18 | | 03/11/09 20:37 | 87-68-3 | |
| n-Hexane | **2.0** | ug/m3 | 0.85 | 0.42 | 1.18 | | 03/11/09 20:37 | 110-54-3 | |
| 2-Hexanone | **2.0** | ug/m3 | 0.98 | 0.49 | 1.18 | | 03/11/09 20:37 | 591-78-6 | |
| Methylene Chloride | **1.1** | ug/m3 | 0.84 | 0.42 | 1.18 | | 03/11/09 20:37 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 0.98 | 0.49 | 1.18 | | 03/11/09 20:37 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.86 | 0.43 | 1.18 | | 03/11/09 20:37 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.2 | 1.6 | 1.18 | | 03/11/09 20:37 | 91-20-3 | |
| 2-Propanol | **3.9** | ug/m3 | 3.0 | 1.5 | 1.18 | | 03/11/09 20:37 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.41 | 0.21 | 1.18 | | 03/11/09 20:37 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.0 | 0.51 | 1.18 | | 03/11/09 20:37 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.7 | 0.83 | 1.18 | | 03/11/09 20:37 | 79-34-5 | |
| Tetrachloroethene | **31.1** | ug/m3 | 1.7 | 0.83 | 1.18 | | 03/11/09 20:37 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

**Sample: VP-3326 Gorham #33 (8')** **Lab ID: 1090641007** Collected: 03/06/09 16:13 Received: 03/07/09 10:55 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.71 | 0.35 | 1.18 | | 03/11/09 20:37 | 109-99-9 | |
| Toluene | **10.3** | ug/m3 | 0.91 | 0.45 | 1.18 | | 03/11/09 20:37 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.2 | 0.58 | 1.18 | | 03/11/09 20:37 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.3 | 0.65 | 1.18 | | 03/11/09 20:37 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.3 | 0.65 | 1.18 | | 03/11/09 20:37 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.3 | 0.65 | 1.18 | | 03/11/09 20:37 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.3 | 0.65 | 1.18 | | 03/11/09 20:37 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.18 | | 03/11/09 20:37 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **15.1** | ug/m3 | 3.0 | 1.5 | 1.18 | | 03/11/09 20:37 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.0 | 1.5 | 1.18 | | 03/11/09 20:37 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.84 | 0.42 | 1.18 | | 03/11/09 20:37 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.61 | 0.31 | 1.18 | | 03/11/09 20:37 | 75-01-4 | |
| m&p-Xylene | **7.9** | ug/m3 | 2.1 | 1.0 | 1.18 | | 03/11/09 20:37 | 1330-20-7 | |
| o-Xylene | **2.6** | ug/m3 | 1.0 | 0.52 | 1.18 | | 03/11/09 20:37 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

QC Batch: AIR/8228 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1090641001, 1090641002, 1090641003, 1090641004, 1090641005, 1090641006, 1090641007

METHOD BLANK: 592416 Matrix: Air
Associated Lab Samples: 1090641001, 1090641002, 1090641003, 1090641004, 1090641005, 1090641006, 1090641007

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 03/11/09 11:14 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 03/11/09 11:14 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 03/11/09 11:14 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 03/11/09 11:14 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 03/11/09 11:14 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 03/11/09 11:14 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 03/11/09 11:14 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/11/09 11:14 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 03/11/09 11:14 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/11/09 11:14 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 03/11/09 11:14 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 03/11/09 11:14 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 03/11/09 11:14 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 03/11/09 11:14 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/11/09 11:14 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 03/11/09 11:14 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 03/11/09 11:14 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 03/11/09 11:14 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 03/11/09 11:14 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 03/11/09 11:14 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 03/11/09 11:14 | |
| Acetone | ug/m3 | ND | 0.48 | 03/11/09 11:14 | |
| Benzene | ug/m3 | ND | 0.65 | 03/11/09 11:14 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 03/11/09 11:14 | |
| Bromoform | ug/m3 | ND | 2.1 | 03/11/09 11:14 | |
| Bromomethane | ug/m3 | ND | 0.79 | 03/11/09 11:14 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 03/11/09 11:14 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 03/11/09 11:14 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 03/11/09 11:14 | |
| Chloroethane | ug/m3 | ND | 0.54 | 03/11/09 11:14 | |
| Chloroform | ug/m3 | ND | 0.99 | 03/11/09 11:14 | |
| Chloromethane | ug/m3 | ND | 0.42 | 03/11/09 11:14 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/11/09 11:14 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/11/09 11:14 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 03/11/09 11:14 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 03/11/09 11:14 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 03/11/09 11:14 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 03/11/09 11:14 | |
| Ethanol | ug/m3 | ND | 1.9 | 03/11/09 11:14 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 03/11/09 11:14 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 03/11/09 11:14 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 03/11/09 11:14 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 03/11/09 11:14 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

METHOD BLANK: 592416 Matrix: Air

Associated Lab Samples: 1090641001, 1090641002, 1090641003, 1090641004, 1090641005, 1090641006, 1090641007

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 03/11/09 11:14 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 03/11/09 11:14 | |
| n-Heptane | ug/m3 | ND | 0.83 | 03/11/09 11:14 | |
| n-Hexane | ug/m3 | ND | 0.72 | 03/11/09 11:14 | |
| Naphthalene | ug/m3 | ND | 2.7 | 03/11/09 11:14 | |
| o-Xylene | ug/m3 | ND | 0.88 | 03/11/09 11:14 | |
| Propylene | ug/m3 | ND | 0.35 | 03/11/09 11:14 | |
| Styrene | ug/m3 | ND | 0.87 | 03/11/09 11:14 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 03/11/09 11:14 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 03/11/09 11:14 | |
| Toluene | ug/m3 | ND | 0.77 | 03/11/09 11:14 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 03/11/09 11:14 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 03/11/09 11:14 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 03/11/09 11:14 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 03/11/09 11:14 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 03/11/09 11:14 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 03/11/09 11:14 | |

LABORATORY CONTROL SAMPLE: 592417

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 58.3 | 102 | 60-134 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 71.0 | 100 | 55-141 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 51.9 | 93 | 64-129 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 58.5 | 77 | 55-137 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 35.3 | 86 | 59-136 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 39.9 | 99 | 60-137 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 72.6 | 97 | 50-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 52.8 | 107 | 63-137 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 79.5 | 98 | 61-136 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 70.0 | 112 | 60-139 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 42.7 | 95 | 56-141 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 52.3 | 103 | 57-131 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.3 | 108 | 61-134 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 20.9 | 92 | 53-140 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 67.0 | 104 | 59-136 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 68.2 | 108 | 59-130 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 29.7 | 96 | 54-133 | |
| 2-Hexanone | ug/m3 | 42.1 | 43.1 | 102 | 54-139 | |
| 2-Propanol | ug/m3 | 23.8 | 13.6 | 57 | 50-150 | |
| 4-Ethyltoluene | ug/m3 | 50 | 49.1 | 98 | 61-138 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 41.0 | 97 | 53-139 | |
| Acetone | ug/m3 | 24.2 | 16.9 | 70 | 50-139 | |
| Benzene | ug/m3 | 32.8 | 31.2 | 95 | 64-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 67.5 | 99 | 61-131 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

LABORATORY CONTROL SAMPLE: 592417

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 102 | 95 | 66-138 | |
| Bromomethane | ug/m3 | 39.9 | 37.7 | 94 | 55-135 | |
| Carbon disulfide | ug/m3 | 32.6 | 36.3 | 111 | 50-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 61.8 | 96 | 58-135 | |
| Chlorobenzene | ug/m3 | 46.4 | 47.8 | 103 | 62-139 | |
| Chloroethane | ug/m3 | 26.6 | 25.6 | 97 | 56-140 | |
| Chloroform | ug/m3 | 48.5 | 50.3 | 104 | 50-150 | |
| Chloromethane | ug/m3 | 21 | 19.8 | 94 | 56-144 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 39.4 | 95 | 62-135 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 56.4 | 116 | 64-133 | |
| Cyclohexane | ug/m3 | 35.7 | 39.5 | 111 | 54-139 | |
| Dibromochloromethane | ug/m3 | 91 | 89.3 | 98 | 50-150 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 49.2 | 100 | 60-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 60.2 | 85 | 59-130 | |
| Ethanol | ug/m3 | 19.2 | 32.8 | 171 | 50-150 | SS |
| Ethyl acetate | ug/m3 | 37.4 | 44.7 | 120 | 60-132 | |
| Ethylbenzene | ug/m3 | 48.6 | 49.4 | 102 | 65-140 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 83.4 | 78 | 50-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 93.0 | 100 | 60-132 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 36.5 | 100 | 50-150 | |
| Methylene Chloride | ug/m3 | 34.6 | 29.0 | 84 | 56-138 | |
| n-Heptane | ug/m3 | 42.9 | 39.0 | 91 | 62-135 | |
| n-Hexane | ug/m3 | 39.1 | 40.5 | 104 | 62-134 | |
| Naphthalene | ug/m3 | 50.6 | 59.8 | 118 | 70-130 | |
| o-Xylene | ug/m3 | 45.5 | 45.3 | 100 | 64-132 | |
| Propylene | ug/m3 | 18.6 | 19.1 | 103 | 56-125 | |
| Styrene | ug/m3 | 43.3 | 44.1 | 102 | 69-134 | |
| Tetrachloroethene | ug/m3 | 71.7 | 70.4 | 98 | 60-137 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 15.6 | 69 | 52-139 | |
| Toluene | ug/m3 | 39.9 | 38.0 | 95 | 69-130 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 40.7 | 97 | 50-150 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 45.9 | 94 | 70-142 | |
| Trichloroethene | ug/m3 | 55.2 | 62.8 | 114 | 60-134 | |
| Trichlorofluoromethane | ug/m3 | 56 | 54.7 | 98 | 56-141 | |
| Vinyl acetate | ug/m3 | 36.9 | 35.9 | 97 | 61-142 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.2 | 94 | 66-132 | |

SAMPLE DUPLICATE: 592870

| Parameter | Units | 1090641005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

SAMPLE DUPLICATE: 592870

| Parameter | Units | 1090641005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 13.4 | 12.7 | 5 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 16.5 | 15.9 | 4 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 1.5 | 1.3 | 14 | 25 | |
| 2-Hexanone | ug/m3 | 1.8 | 1.8 | .03 | 25 | |
| 2-Propanol | ug/m3 | ND | 3.7 | | 25 | |
| 4-Ethyltoluene | ug/m3 | 3.4 | 3.5 | .6 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 10.6 | 10.3 | 2 | 25 | |
| Benzene | ug/m3 | 1.3 | 1.2 | 5 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | ND | ND | | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | 0.92 | 0.86 | 8 | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.2 | 3.2 | 2 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 2.4 | 2.3 | 5 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 8.1 | 16.5 | 68 | 25 | R1,SS |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 1.9 | 1.7 | 8 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 7.7 | 7.2 | 7 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 15.8 | 15.0 | 5 | 25 | |
| n-Heptane | ug/m3 | 2.2 | 2.1 | 6 | 25 | |
| n-Hexane | ug/m3 | 3.6 | 3.2 | 9 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 2.5 | 2.3 | 10 | 25 | |
| Propylene | ug/m3 | ND | ND | | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 12.0 | 11.6 | 4 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

SAMPLE DUPLICATE: 592870

| Parameter | Units | 1090641005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1090641001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641003

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641004

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641005

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641006

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1090641007

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| R1 | RPD value was outside control limits. |
| SS | This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1090641

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1090641001** | **VP-3340 Gorham #1 (8')** | TO-15 | AIR/8228 | | |
| **1090641002** | **VP-3340 Gorham #3 (8')** | TO-15 | AIR/8228 | | |
| **1090641003** | **VP-3326 Gorham #1 (8')** | TO-15 | AIR/8228 | | |
| **1090641004** | **VP-3326 Gorham #2 (8')** | TO-15 | AIR/8228 | | |
| **1090641005** | **VP-Equipment Blank #1** | TO-15 | AIR/8228 | | |
| **1090641006** | **VP-3326 Gorham #3 (8')** | TO-15 | AIR/8228 | | |
| **1090641007** | **VP-3326 Gorham #33 (8')** | TO-15 | AIR/8228 | | |



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MPCA Project

1090641

STS | AECOM

# Chain of Custody Record

№ 4323

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office: Mplsn
Project No.: 0466002-4 PO No.:
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carol Davy
Phone No.: 612-607-1700
Results Due: Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-3340 Gorham #1 (8') | 3/6/09 | 850 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 1090641001 |
| VP-3340 Gorham #3 (8') | 3/6/09 | 928 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 002 |
| VP-3326 Gorham #1 (8') | ↓ | 1212 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |
| VP-3326 Gorham #2 (8') | | 1522 | | | | | | | | | | | | 004 |
| VP-Equipment Blank #1 | | 1530 | | | | | | | | | | | | 005 |
| VP-3326 Gorham #3 (8') | | 1607 | | | | | | | | | | | | 006 |
| VP-3326 Gorham #33 (8') | ↓ | 1613 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 007 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date above | Time above | Delivery by: Ryan Doherty | Date 3/7/09 | Time 1055 |
| Received by: Pace T=AMB | Date 3/7/09 | Time 1055 | Relinquished by: Ryan Doherty | Date 3/7/01 | Time 1055 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: AECOM/STS Project # 1090641

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Temp Blank: Yes No X

Thermometer Used ~~80044043, 179426~~ Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature AMB Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3-2-09 JL

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AIR (CAN) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution: 7 CANS

Project Manager Review: CMO Date: 3-9-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

3/7/09

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April 14, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092045001** | **VP-7008 Walker #2 (8')** | Air | 03/30/09 13:09 | 03/31/09 12:05 |
| **1092045002** | **VP-7008 Walker #1 (8')** | Air | 03/30/09 14:36 | 03/31/09 12:05 |
| **1092045003** | **VP-7008 Walker #3 (8')** | Air | 03/30/09 17:00 | 03/31/09 12:05 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1092045001** | **VP-7008 Walker #2 (8')** | TO-15 | DB1 | 60 |
| **1092045002** | **VP-7008 Walker #1 (8')** | TO-15 | AH | 60 |
| **1092045003** | **VP-7008 Walker #3 (8')** | TO-15 | AH | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 14, 2009

**General Information:**
3 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8377

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- DUP (Lab ID: 604864)
  - Ethanol
- DUP (Lab ID: 604865)
  - Ethanol
- VP-7008 Walker #2 (8') (Lab ID: 1092045001)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8377

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

- LCS (Lab ID: 604458)
  - Naphthalene

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 604458)
  - 1,2,4-Trichlorobenzene

QC Batch: AIR/8382

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

- LCS (Lab ID: 605379)
  - Naphthalene



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 14, 2009

QC Batch: AIR/8382

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 605379)
  - 1,2,4-Trichlorobenzene

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8377

R1: RPD value was outside control limits.

- DUP (Lab ID: 604864)
  - Propylene

QC Batch: AIR/8382

R1: RPD value was outside control limits.

- DUP (Lab ID: 606667)
  - 4-Ethyltoluene
  - Dichlorodifluoromethane
  - Tetrahydrofuran
  - n-Hexane

**Additional Comments:**

Sample Comments:

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

- VP-7008 Walker #2 (8') (Lab ID: 1092045001)

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

- VP-7008 Walker #1 (8') (Lab ID: 1092045002)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

- VP-7008 Walker #3 (8') (Lab ID: 1092045003)

Analyte Comments:

QC Batch: AIR/8377

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 604864)
  - 1,1,1-Trichloroethane
  - Propylene

QC Batch: AIR/8382

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- VP-7008 Walker #3 (8') (Lab ID: 1092045003)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #2 (8')** **Lab ID: 1092045001** Collected: 03/30/09 13:09 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **15.2** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/09/09 07:19 | 67-64-1 | |
| Benzene | **4.5** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/09/09 07:19 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/09/09 07:19 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/09/09 07:19 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/09/09 07:19 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/09/09 07:19 | 106-99-0 | |
| 2-Butanone (MEK) | **4.1** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/09/09 07:19 | 78-93-3 | |
| Carbon disulfide | **7.9** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/09/09 07:19 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/09/09 07:19 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/09/09 07:19 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/09/09 07:19 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/09/09 07:19 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/09/09 07:19 | 74-87-3 | |
| Cyclohexane | **9.4** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/09/09 07:19 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/09/09 07:19 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/09/09 07:19 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/09/09 07:19 | 95-50-1 | |
| 1,3-Dichlorobenzene | **14.2** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/09/09 07:19 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/09/09 07:19 | 106-46-7 | |
| Dichlorodifluoromethane | **2.0** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/09/09 07:19 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/09/09 07:19 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/09/09 07:19 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/09/09 07:19 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/09/09 07:19 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/09/09 07:19 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/09/09 07:19 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/09/09 07:19 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/09/09 07:19 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/09/09 07:19 | 76-14-2 | |
| Ethanol | **72.2** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/09/09 07:19 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/09/09 07:19 | 141-78-6 | |
| Ethylbenzene | **7.6** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/09/09 07:19 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/09/09 07:19 | 622-96-8 | |
| n-Heptane | **6.3** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/09/09 07:19 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/09/09 07:19 | 87-68-3 | |
| n-Hexane | **25.7** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/09/09 07:19 | 110-54-3 | |
| 2-Hexanone | **17.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/09/09 07:19 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/09/09 07:19 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/09/09 07:19 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/09/09 07:19 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/09/09 07:19 | 91-20-3 | L1 |
| 2-Propanol | **16.7** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/09/09 07:19 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/09/09 07:19 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/09/09 07:19 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/09/09 07:19 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/09/09 07:19 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #2 (8')** **Lab ID: 1092045001** Collected: 03/30/09 13:09 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/09/09 07:19 | 109-99-9 | |
| Toluene | **72.3** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/09/09 07:19 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/09/09 07:19 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/09/09 07:19 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/09/09 07:19 | 79-00-5 | |
| Trichloroethene | **1.7** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/09/09 07:19 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/09/09 07:19 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/09/09 07:19 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/09/09 07:19 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/09/09 07:19 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/09/09 07:19 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/09/09 07:19 | 75-01-4 | |
| m&p-Xylene | **13.3** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/09/09 07:19 | 1330-20-7 | |
| o-Xylene | **3.7** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/09/09 07:19 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #1 (8')** **Lab ID: 1092045002** Collected: 03/30/09 14:36 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **42.6** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/10/09 16:34 | 67-64-1 | |
| Benzene | **5.6** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/10/09 16:34 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 16:34 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/10/09 16:34 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/10/09 16:34 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/10/09 16:34 | 106-99-0 | |
| 2-Butanone (MEK) | **12.4** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 16:34 | 78-93-3 | |
| Carbon disulfide | **4.3** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/10/09 16:34 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/10/09 16:34 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 16:34 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/10/09 16:34 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 16:34 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/10/09 16:34 | 74-87-3 | |
| Cyclohexane | **3.9** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/10/09 16:34 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/10/09 16:34 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 16:34 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 16:34 | 95-50-1 | |
| 1,3-Dichlorobenzene | **20.2** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 16:34 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 16:34 | 106-46-7 | |
| Dichlorodifluoromethane | **2.4** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/10/09 16:34 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 16:34 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 16:34 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 16:34 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 16:34 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 16:34 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 16:34 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 16:34 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 16:34 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 16:34 | 76-14-2 | |
| Ethanol | **103** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/10/09 16:34 | 64-17-5 | |
| Ethyl acetate | **2.5** | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 16:34 | 141-78-6 | |
| Ethylbenzene | **12.6** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 16:34 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 16:34 | 622-96-8 | |
| n-Heptane | **7.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 16:34 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/10/09 16:34 | 87-68-3 | |
| n-Hexane | **8.1** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/10/09 16:34 | 110-54-3 | |
| 2-Hexanone | **30.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 16:34 | 591-78-6 | |
| Methylene Chloride | **1.4** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 16:34 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | **2.5** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 16:34 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 16:34 | 1634-04-4 | |
| Naphthalene | **11.7** | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/10/09 16:34 | 91-20-3 | L1 |
| 2-Propanol | **72.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 16:34 | 67-63-0 | |
| Propylene | **15.9** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/10/09 16:34 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/10/09 16:34 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 16:34 | 79-34-5 | |
| Tetrachloroethene | **54.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 16:34 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #1 (8')** **Lab ID: 1092045002** Collected: 03/30/09 14:36 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **2.3** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 16:34 | 109-99-9 | |
| Toluene | **122** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/10/09 16:34 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 16:34 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 16:34 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 16:34 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 16:34 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 16:34 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 16:34 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **5.7** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 16:34 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 16:34 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 16:34 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/10/09 16:34 | 75-01-4 | |
| m&p-Xylene | **27.1** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/10/09 16:34 | 1330-20-7 | |
| o-Xylene | **7.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 16:34 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #3 (8')** **Lab ID: 1092045003** Collected: 03/30/09 17:00 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **114** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/10/09 17:36 | 67-64-1 | E |
| Benzene | **4.8** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/10/09 17:36 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 17:36 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/10/09 17:36 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/10/09 17:36 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/10/09 17:36 | 106-99-0 | |
| 2-Butanone (MEK) | **9.0** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 17:36 | 78-93-3 | |
| Carbon disulfide | **3.5** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/10/09 17:36 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/10/09 17:36 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 17:36 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/10/09 17:36 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 17:36 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/10/09 17:36 | 74-87-3 | |
| Cyclohexane | **2.9** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/10/09 17:36 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/10/09 17:36 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 17:36 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 17:36 | 95-50-1 | |
| 1,3-Dichlorobenzene | **15.8** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 17:36 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 17:36 | 106-46-7 | |
| Dichlorodifluoromethane | **2.4** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/10/09 17:36 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 17:36 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 17:36 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 17:36 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 17:36 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 17:36 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 17:36 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 17:36 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 17:36 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 17:36 | 76-14-2 | |
| Ethanol | **58.6** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/10/09 17:36 | 64-17-5 | |
| Ethyl acetate | **5.5** | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 17:36 | 141-78-6 | |
| Ethylbenzene | **21.7** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 17:36 | 100-41-4 | |
| 4-Ethyltoluene | **9.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 17:36 | 622-96-8 | |
| n-Heptane | **5.5** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 17:36 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/10/09 17:36 | 87-68-3 | |
| n-Hexane | **7.4** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/10/09 17:36 | 110-54-3 | |
| 2-Hexanone | **21.0** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 17:36 | 591-78-6 | |
| Methylene Chloride | **28.9** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 17:36 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 17:36 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 17:36 | 1634-04-4 | |
| Naphthalene | **4.7** | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/10/09 17:36 | 91-20-3 | L1 |
| 2-Propanol | **23.3** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 17:36 | 67-63-0 | |
| Propylene | **12.4** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/10/09 17:36 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/10/09 17:36 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 17:36 | 79-34-5 | |
| Tetrachloroethene | **2.0** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 17:36 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

**Sample: VP-7008 Walker #3 (8')** **Lab ID: 1092045003** Collected: 03/30/09 17:00 Received: 03/31/09 12:05 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **7.6** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 17:36 | 109-99-9 | |
| Toluene | **98.2** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/10/09 17:36 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 17:36 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 17:36 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 17:36 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 17:36 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 17:36 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 17:36 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **39.9** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 17:36 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **15.6** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 17:36 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 17:36 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/10/09 17:36 | 75-01-4 | |
| m&p-Xylene | **80.9** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/10/09 17:36 | 1330-20-7 | |
| o-Xylene | **19.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 17:36 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

QC Batch: AIR/8377
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092045001

METHOD BLANK: 604457
Matrix: Air
Associated Lab Samples: 1092045001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/08/09 20:57 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/08/09 20:57 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/08/09 20:57 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/08/09 20:57 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/08/09 20:57 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/08/09 20:57 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/08/09 20:57 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/08/09 20:57 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/08/09 20:57 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/08/09 20:57 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/08/09 20:57 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/08/09 20:57 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/08/09 20:57 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/08/09 20:57 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/08/09 20:57 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/08/09 20:57 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/08/09 20:57 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/08/09 20:57 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/08/09 20:57 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/08/09 20:57 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/08/09 20:57 | |
| Acetone | ug/m3 | ND | 0.48 | 04/08/09 20:57 | |
| Benzene | ug/m3 | ND | 0.65 | 04/08/09 20:57 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/08/09 20:57 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/08/09 20:57 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/08/09 20:57 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/08/09 20:57 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/08/09 20:57 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/08/09 20:57 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/08/09 20:57 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/08/09 20:57 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/08/09 20:57 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/08/09 20:57 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/08/09 20:57 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/08/09 20:57 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/08/09 20:57 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/08/09 20:57 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/08/09 20:57 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/08/09 20:57 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/08/09 20:57 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/08/09 20:57 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/08/09 20:57 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/08/09 20:57 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

METHOD BLANK: 604457 Matrix: Air

Associated Lab Samples: 1092045001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/08/09 20:57 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/08/09 20:57 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/08/09 20:57 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/08/09 20:57 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/08/09 20:57 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/08/09 20:57 | |
| Propylene | ug/m3 | ND | 0.35 | 04/08/09 20:57 | |
| Styrene | ug/m3 | ND | 0.87 | 04/08/09 20:57 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/08/09 20:57 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/08/09 20:57 | |
| Toluene | ug/m3 | ND | 0.77 | 04/08/09 20:57 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/08/09 20:57 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/08/09 20:57 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/08/09 20:57 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/08/09 20:57 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/08/09 20:57 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/08/09 20:57 | |

LABORATORY CONTROL SAMPLE: 604458

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 65.4 | 114 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 80.2 | 113 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 57.8 | 103 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 70.6 | 92 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 41.5 | 101 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 46.7 | 116 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 134 | 180 | 30-150 | L3 |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 58.3 | 118 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 90.6 | 111 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 74.4 | 119 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 47.2 | 105 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 58.4 | 115 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 59.5 | 120 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 25.8 | 114 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 73.6 | 115 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 73.8 | 117 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 34.1 | 110 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 48.3 | 115 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 26.5 | 112 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 54.4 | 109 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 46.9 | 110 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 21.2 | 88 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 35.2 | 107 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 76.1 | 112 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

LABORATORY CONTROL SAMPLE: 604458

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 116 | 108 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 45.9 | 115 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 42.4 | 130 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 74.3 | 115 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 53.8 | 116 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 31.6 | 119 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 57.3 | 118 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 23.6 | 112 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 44.5 | 107 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 62.1 | 128 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 44.5 | 125 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 101 | 111 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 55.8 | 113 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 72.4 | 102 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 12.2 | 64 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 49.3 | 132 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 54.5 | 112 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 158 | 149 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 104 | 112 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 41.5 | 113 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 35.0 | 101 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 43.9 | 102 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 43.0 | 110 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 102 | 202 | 30-150 | L1 |
| o-Xylene | ug/m3 | 45.5 | 50.4 | 111 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 21.7 | 117 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 47.3 | 109 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 80.4 | 112 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 19.4 | 86 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.4 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 48.0 | 114 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 52.3 | 107 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.1 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 64.5 | 115 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 41.3 | 112 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 30.0 | 112 | 57-132 | |

SAMPLE DUPLICATE: 604864

| Parameter | Units | 1092381002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 360 | 303 | 17 | 25 | E |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 35.6 | 35.1 | 1 | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | 1.7 | 1.8 | 6 | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

SAMPLE DUPLICATE: 604864

| Parameter | Units | 1092381002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 14.3 | 14.2 | .6 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 10.8 | 11.2 | 4 | 25 | |
| 2-Hexanone | ug/m3 | 6.6 | 6.6 | .03 | 25 | |
| 2-Propanol | ug/m3 | ND | ND | | 25 | |
| 4-Ethyltoluene | ug/m3 | 4.9 | 4.6 | 6 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 1.1 | 1.3 | | 25 | |
| Acetone | ug/m3 | 47.8 | 47.6 | .4 | 25 | |
| Benzene | ug/m3 | 14.9 | 15.6 | 4 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 3.2 | 3.1 | 2 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.3 | 3.4 | 4 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 54.8 | 54.3 | .8 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 11.4 | 11.7 | 2 | 25 | IC |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 11.7 | 11.7 | .7 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 42.6 | 42.5 | .2 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 11.1 | 11.4 | 2 | 25 | |
| n-Hexane | ug/m3 | 17.8 | 17.7 | .6 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 12.0 | 12.0 | .3 | 25 | |
| Propylene | ug/m3 | 250 | 192 | 27 | 25 | E,R1 |
| Styrene | ug/m3 | 3.0 | 3.1 | 4 | 25 | |
| Tetrachloroethene | ug/m3 | 9.3 | 9.4 | .6 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 61.2 | 62.4 | 2 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

SAMPLE DUPLICATE: 604864

| Parameter | Units | 1092381002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 117 | 120 | 2 | 25 | |
| Trichlorofluoromethane | ug/m3 | 1.7 | 1.7 | 2 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |

SAMPLE DUPLICATE: 604865

| Parameter | Units | 1092520001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 39.1 | 35.4 | 10 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 8.4 | 7.6 | 10 | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 34.6 | 32.2 | 7 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | ND | ND | | 25 | |
| 4-Ethyltoluene | ug/m3 | 11.2 | 9.1 | 21 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 6.3 | 6.8 | 7 | 25 | |
| Acetone | ug/m3 | 109 | 100 | 8 | 25 | |
| Benzene | ug/m3 | 19.1 | 17.8 | 7 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 7.0 | 6.6 | 5 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.6 | 3.4 | 4 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 10.7 | 10.3 | 4 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

SAMPLE DUPLICATE: 604865

| Parameter | Units | 1092520001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Ethanol | ug/m3 | 26.2 | 25.8 | 1 | 25 | IC |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 11.2 | 10.2 | 9 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 46.3 | 41.9 | 10 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 6.2 | 5.7 | 9 | 25 | |
| n-Hexane | ug/m3 | 11.9 | 10.9 | 9 | 25 | |
| Naphthalene | ug/m3 | 32.2 | 30.9 | 4 | 25 | L1 |
| o-Xylene | ug/m3 | 15.5 | 13.9 | 11 | 25 | |
| Propylene | ug/m3 | 54.6 | 53.3 | 2 | 25 | |
| Styrene | ug/m3 | 3.9 | 3.7 | 7 | 25 | |
| Tetrachloroethene | ug/m3 | 30.9 | 27.9 | 10 | 25 | |
| Tetrahydrofuran | ug/m3 | 5.8 | 5.4 | 7 | 25 | |
| Toluene | ug/m3 | 27.8 | 26.3 | 6 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | 146 | 137 | 7 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

QC Batch: AIR/8382 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092045002, 1092045003

METHOD BLANK: 605378 | Matrix: Air
Associated Lab Samples: 1092045002, 1092045003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/10/09 15:32 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/10/09 15:32 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/10/09 15:32 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/10/09 15:32 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/10/09 15:32 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/10/09 15:32 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/10/09 15:32 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/10/09 15:32 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| Acetone | ug/m3 | ND | 0.48 | 04/10/09 15:32 | |
| Benzene | ug/m3 | ND | 0.65 | 04/10/09 15:32 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/10/09 15:32 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/10/09 15:32 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/10/09 15:32 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/10/09 15:32 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/10/09 15:32 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/10/09 15:32 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/10/09 15:32 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/10/09 15:32 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/10/09 15:32 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/10/09 15:32 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/10/09 15:32 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/10/09 15:32 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/10/09 15:32 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/10/09 15:32 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/10/09 15:32 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/10/09 15:32 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/10/09 15:32 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

METHOD BLANK: 605378 Matrix: Air

Associated Lab Samples: 1092045002, 1092045003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/10/09 15:32 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/10/09 15:32 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/10/09 15:32 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/10/09 15:32 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/10/09 15:32 | |
| Propylene | ug/m3 | ND | 0.35 | 04/10/09 15:32 | |
| Styrene | ug/m3 | ND | 0.87 | 04/10/09 15:32 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/10/09 15:32 | |
| Toluene | ug/m3 | ND | 0.77 | 04/10/09 15:32 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/10/09 15:32 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/10/09 15:32 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/10/09 15:32 | |

LABORATORY CONTROL SAMPLE: 605379

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 63.6 | 111 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 78.2 | 110 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 58.6 | 105 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 66.4 | 87 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 38.9 | 94 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 44.1 | 109 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 114 | 152 | 30-150 | L3 |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 55.6 | 112 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 87.9 | 108 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 71.9 | 115 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 45.0 | 100 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 60.2 | 119 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 57.7 | 117 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 25.6 | 113 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 70.2 | 109 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 70.6 | 112 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 34.7 | 112 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 46.6 | 111 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 25.6 | 108 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 51.4 | 103 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 45.9 | 108 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 19.9 | 82 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 36.0 | 110 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 72.5 | 106 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

LABORATORY CONTROL SAMPLE: 605379

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 108 | 101 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 43.3 | 109 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 39.6 | 121 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 70.7 | 109 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 52.3 | 113 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 30.6 | 115 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 54.6 | 113 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 22.9 | 109 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 45.4 | 109 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 61.7 | 127 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 44.4 | 124 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 89.7 | 99 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 53.6 | 109 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 68.8 | 97 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 11.7 | 61 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 49.2 | 132 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 52.7 | 108 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 142 | 133 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 100 | 108 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 40.9 | 112 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 32.2 | 93 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 42.3 | 99 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 46.2 | 118 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 93.7 | 185 | 30-150 | L1 |
| o-Xylene | ug/m3 | 45.5 | 48.6 | 107 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 22.3 | 120 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 46.5 | 107 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 76.5 | 107 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 19.0 | 84 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.1 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 46.7 | 111 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 53.5 | 109 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.3 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 57.6 | 103 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 40.4 | 110 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 29.4 | 110 | 57-132 | |

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 15.5 | 18.3 | 17 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 4.3 | 5.2 | 20 | 25 | |
| 1,3-Butadiene | ug/m3 | ND | 8.4 | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 13.9 | 16.8 | 19 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 3.7 | 4.2 | 15 | 25 | |
| 2-Hexanone | ug/m3 | 9.7 | 11.8 | 20 | 25 | |
| 2-Propanol | ug/m3 | 8.3 | 9.9 | 17 | 25 | |
| 4-Ethyltoluene | ug/m3 | 3.4 | 4.5 | 29 | 25 | R1 |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 21.3 | 26.9 | 23 | 25 | |
| Benzene | ug/m3 | 4.7 | 5.7 | 18 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 3.6 | 4.4 | 20 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.4 | 4.2 | 20 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 1.9 | 2.5 | 28 | 25 | R1 |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 9.9 | 12.6 | 24 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 5.0 | 6.2 | 22 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 12.8 | 15.9 | 22 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 22.4 | 95.7 | 124 | 25 | |
| n-Heptane | ug/m3 | 4.8 | 5.5 | 14 | 25 | |
| n-Hexane | ug/m3 | 10.4 | 15.0 | 37 | 25 | R1 |
| Naphthalene | ug/m3 | ND | 5.6 | | 25 | |
| o-Xylene | ug/m3 | 4.1 | 5.2 | 24 | 25 | |
| Propylene | ug/m3 | 48.8 | 59.6 | 20 | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | 1.6 | 2.0 | 26 | 25 | R1 |
| Toluene | ug/m3 | 41.6 | 49.4 | 17 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 2.9 | 3.5 | 16 | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.6 | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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(612)607-1700

# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1092045001

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 1092045002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1092045003

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| IC | The initial calibration for this compound was outside of method control limits. The result is estimated. |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092045

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092045001** | **VP-7008 Walker #2 (8')** | TO-15 | AIR/8377 | | |
| **1092045002** | **VP-7008 Walker #1 (8')** | TO-15 | AIR/8382 | | |
| **1092045003** | **VP-7008 Walker #3 (8')** | TO-15 | AIR/8382 | | |



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Data File: \\192.168.10.12\chem\10air7.i\040809.b\09836.D
Report Date: 09-Apr-2009 11:15

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 4
Lab Smp Id: 1092045001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 09-APR-2009 07:19

Client SDG: 040809.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.699 | 146 | J |
| 2. | 463-49-0 | 1,2-Propadiene | 3.926 | 4.45 | NJ |
| 3. | | Unknown | 4.027 | 4.99 | J |
| 4. | | Unknown | 4.093 | 7.45 | J |
| 5. | 78-78-4 | Butane, 2-methyl- | 4.591 | 4.71 | NJ |
| 6. | 109-66-0 | Pentane | 4.795 | 2.97 | NJ |
| 7. | 107-83-5 | Pentane, 2-methyl- | 5.526 | 3.72 | NJ |
| 8. | 96-14-0 | Pentane, 3-methyl- | 5.729 | 4.04 | NJ |
| 9. | 108-87-2 | Cyclohexane, methyl- | 8.349 | 2.66 | NJ |
| 10. | 55429-29-3 | Arsenous acid, tris(trimeth | 10.055 | 5.65 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\040809.b\09836.D
Report Date: 09-Apr-2009 11:15

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\040809.b\09836.D
Lab Smp Id: 1092045001
Inj Date : 09-APR-2009 07:19
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 4
Misc Info : 8377
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\040809.b\LOWTO15_098.m
Meth Date : 09-Apr-2009 09:19 dbrusky Quant Type: ISTD
Cal Date : 08-APR-2009 18:56 Cal File: 09811.D
Als bottle: 32
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

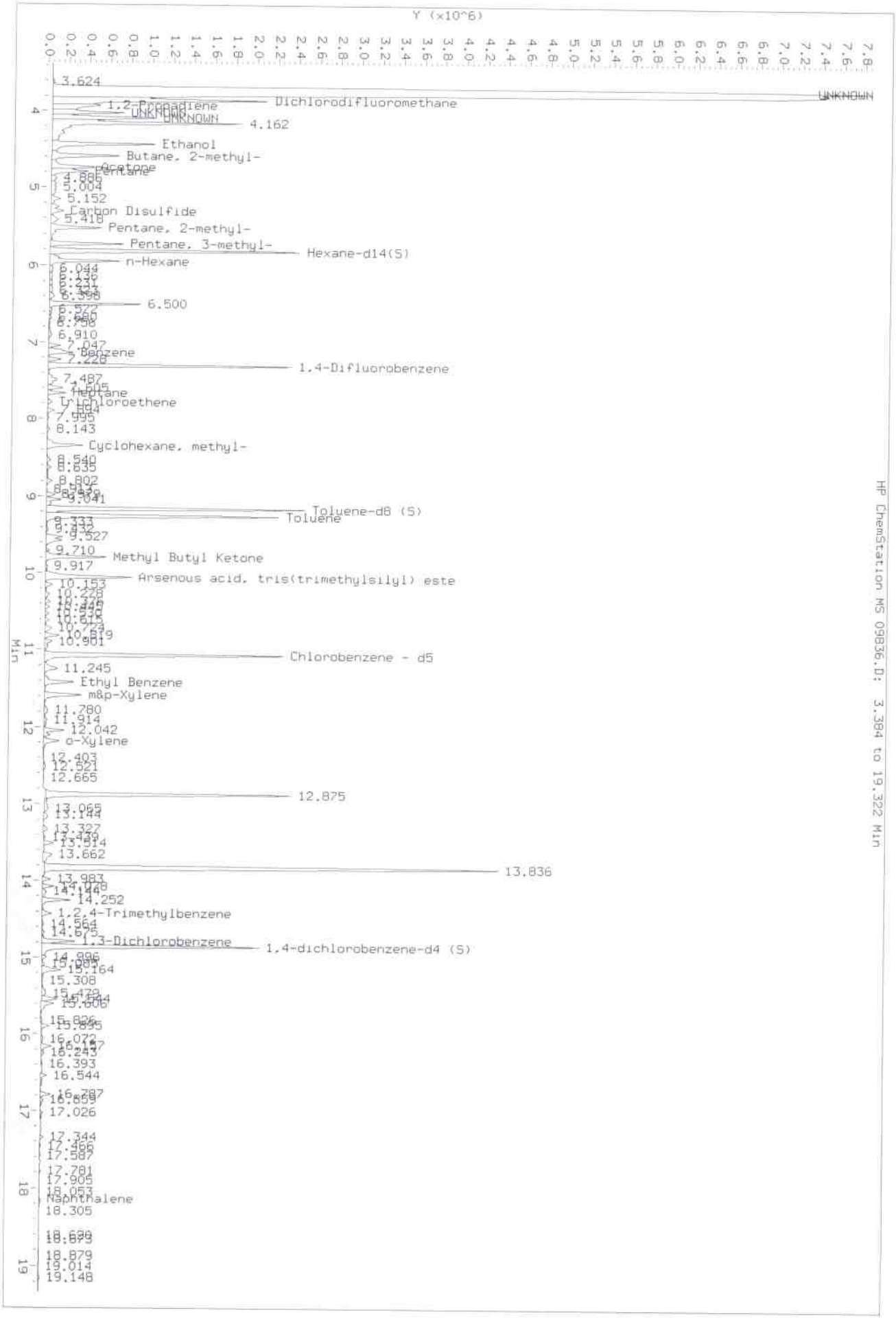
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.307 | 4504543 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 5023971 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.699 | 48936940 | 108.639074 | 146 | 0 | | 0 | 35 |
| 1,2-Propadiene | | | | CAS #: 463-49-0 | | | |
| 3.926 | 1495159 | 3.31922378 | 4.45 | 86 | NBS75K.1 | 23 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.027 | 1678293 | 3.72577946 | 4.99 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.093 | 2504621 | 5.56021096 | 7.45 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.591 | 1584872 | 3.51838661 | 4.71 | 91 | NBS75K.1 | 62518 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\040809.b\09836.D
Report Date: 09-Apr-2009 11:15

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Pentane | | | | | CAS #: 109-66-0 | | |
| 4.795 | 998315 | 2.21624094 | 2.97 | 90 | NBS75K.1 | 62515 | 35 |
| Pentane, 2-methyl- | | | | | CAS #: 107-83-5 | | |
| 5.526 | 1251225 | 2.77769538 | 3.72 | 91 | NBS75K.1 | 62865 | 35 |
| Pentane, 3-methyl- | | | | | CAS #: 96-14-0 | | |
| 5.729 | 1357308 | 3.01319769 | 4.04 | 91 | NBS75K.1 | 62867 | 35 |
| Cyclohexane, methyl- | | | | | CAS #: 108-87-2 | | |
| 8.349 | 894179 | 1.98506113 | 2.66 | 96 | NBS75K.1 | 1326 | 35 |
| Arsenous acid, tris(trimethylsilyl) este | | | | | CAS #: 55429-29-3 | | |
| 10.055 | 2118965 | 4.21771024 | 5.65 | 72 | NBS75K.1 | 48300 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\040809.b\09836.D
Injection Date: 09-APR-2009 07:19
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 09836.D: 3.394 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10013.D
Report Date: 14-Apr-2009 16:43

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1092045002
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-APR-2009 16:34

Client SDG: 041009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.693 | 270 | J |
| 2. | | Unknown | 4.093 | 12.0 | J |
| 3. | | Unknown | 4.214 | 5.01 | J |
| 4. | 78-78-4 | Butane, 2-methyl- | 4.585 | 4.28 | NJ |
| 5. | 108-87-2 | Cyclohexane, methyl- | 8.353 | 1.96 | NJ |
| 6. | 638-04-0 | Cyclohexane, 1,3-dimethyl-, | 9.530 | 3.36 | NJ |
| 7. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.051 | 3.80 | NJ |
| 8. | 1678-91-7 | Cyclohexane, ethyl- | 10.822 | 2.26 | NJ |
| 9. | 3073-66-3 | Cyclohexane, 1,1,3-trimethy | 10.897 | 2.00 | NJ |
| 10. | 67078-75-5 | 2,2-Dimethyl-1-oxa-2-silacy | 11.245 | 3.38 | NJ |
| 11. | 124-18-5 | Decane | 14.252 | 2.05 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10013.D
Report Date: 14-Apr-2009 16:43

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041009.b\10013.D
Lab Smp Id: 1092045002
Inj Date : 10-APR-2009 16:34
Operator : AH
Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041009.b\LOWTO15_100.m
Meth Date : 13-Apr-2009 13:05 ahallberg
Quant Type: ISTD
Cal Date : 10-APR-2009 13:26
Cal File: 10007.D
Als bottle: 13
Dil Factor: 1.34000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

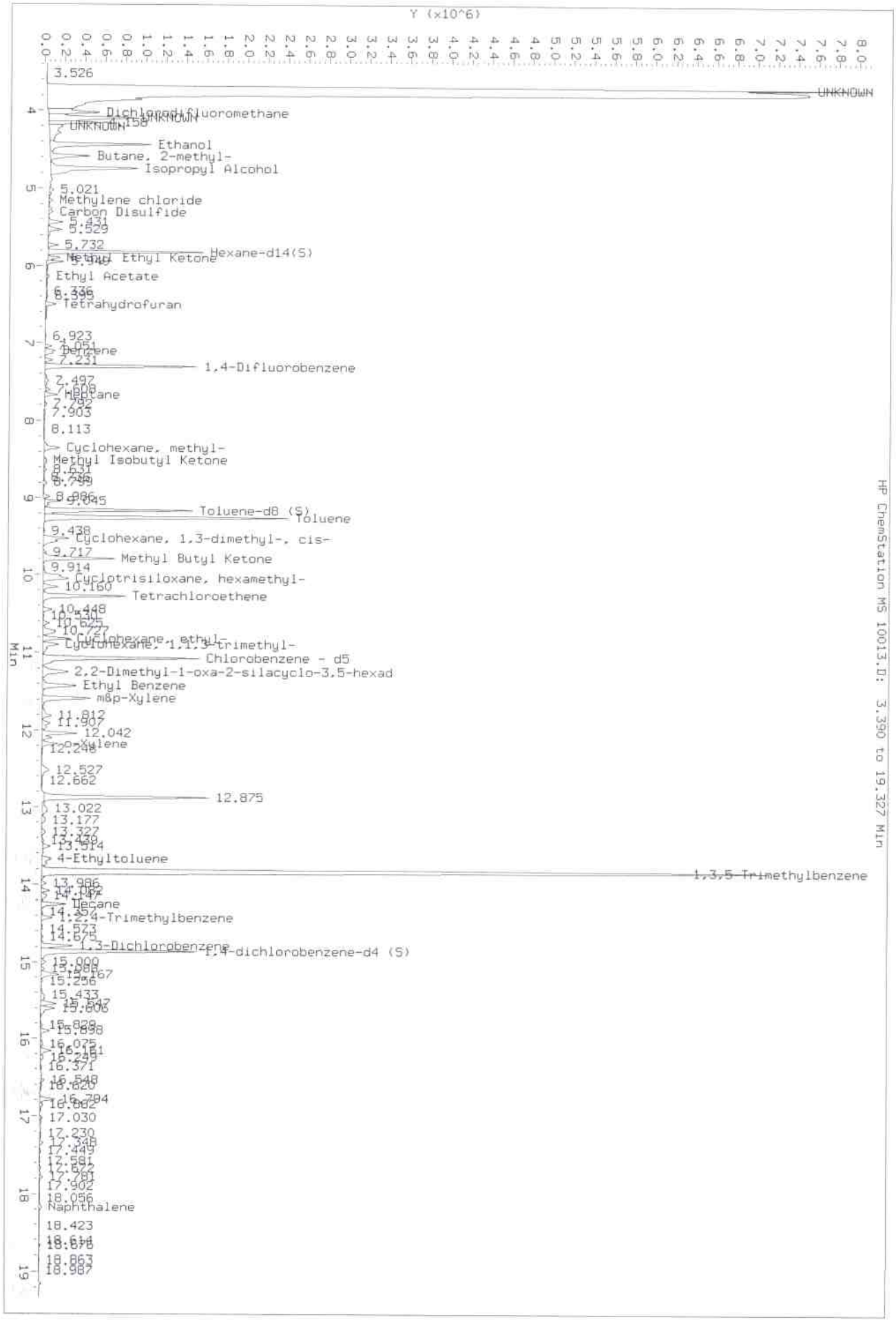
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2806078 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 3437787 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.693 | 56582010 | 201.640886 | 270 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.093 | 2521222 | 8.98485987 | 12.0 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.214 | 1048595 | 3.73686860 | 5.01 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.585 | 896605 | 3.19522466 | 4.28 | 90 | NBS75K.1 | 62517 | 35 |
| Cyclohexane, methyl- | | | | CAS #: 108-87-2 | | | |
| 8.353 | 410232 | 1.46194009 | 1.96 | 96 | NBS75K.1 | 63236 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10013.D
Report Date: 14-Apr-2009 16:43

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Cyclohexane, 1,3-dimethyl-, cis- | | | | | CAS #: 638-04-0 | | |
| 9.530 | 862972 | 2.51025366 | 3.36 | 97 | NBS75K.1 | 64017 | 50 |
| Cyclotrisiloxane, hexamethyl- | | | | | CAS #: 541-05-9 | | |
| 10.051 | 974805 | 2.83556091 | 3.80 | 86 | NBS75K.1 | 70586 | 50 |
| Cyclohexane, ethyl- | | | | | CAS #: 1678-91-7 | | |
| 10.822 | 580361 | 1.68818096 | 2.26 | 91 | NBS75K.1 | 64005 | 50 |
| Cyclohexane, 1,1,3-trimethyl- | | | | | CAS #: 3073-66-3 | | |
| 10.897 | 514152 | 1.49558938 | 2.00 | 93 | NBS75K.1 | 64942 | 50 |
| 2,2-Dimethyl-1-oxa-2-silacyclo-3,5-hexad | | | | | CAS #: 67078-75-5 | | |
| 11.245 | 867470 | 2.52333963 | 3.38 | 90 | NBS75K.1 | 4442 | 50 |
| Decane | | | | | CAS #: 124-18-5 | | |
| 14.252 | 525610 | 1.52891948 | 2.05 | 87 | NBS75K.1 | 66205 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10013.D
Injection Date: 10-APR-2009 16:34
Instrument: 10air7.i
Client Sample ID:



Data File: \\192.168.10.12\chem\10air7.i\041009.b\10015.D
Report Date: 14-Apr-2009 16:44

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 7
Lab Smp Id: 1092045003
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-APR-2009 17:36

Client SDG: 041009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. 78-78-4 | Butane, 2-methyl- | 4.588 | 2.73 | NJ |
| 2. 638-04-0 | Cyclohexane, 1,3-dimethyl-, | 9.530 | 2.25 | NJ |
| 3. 103-65-1 | Benzene, propyl- | 13.531 | 1.68 | NJ |
| 4. 611-14-3 | Benzene, 1-ethyl-2-methyl- | 14.141 | 2.47 | NJ |
| 5. 124-18-5 | Decane | 14.255 | 1.89 | NJ |
| 6. 620-14-4 | Benzene, 1-ethyl-3-methyl- | 15.085 | 1.83 | NJ |
| 7. 62016-37-9 | Octane, 2,4,6-trimethyl- | 15.167 | 1.74 | NJ |
| 8. 1074-43-7 | Benzene, 1-methyl-3-propyl- | 15.534 | 2.74 | NJ |
| 9. 1758-88-9 | Benzene, 2-ethyl-1,4-dimeth | 15.633 | 2.92 | NJ |
| 10. 933-98-2 | Benzene, 1-ethyl-2,3-dimeth | 16.197 | 2.38 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10015.D
Report Date: 14-Apr-2009 16:44

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041009.b\10015.D
Lab Smp Id: 1092045003
Inj Date : 10-APR-2009 17:36
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 7
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041009.b\LOWTO15_100.m
Meth Date : 13-Apr-2009 13:05 ahallberg Quant Type: ISTD
Cal Date : 10-APR-2009 13:26 Cal File: 10007.D
Als bottle: 15
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 2998137 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 3389310 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Butane, 2-methyl- | | | | | CAS #: 78-78-4 | | |
| 4.588 | 611715 | 2.04031555 | 2.73 | 91 | NBS75K.1 | 62517 | 35 |
| Cyclohexane, 1,3-dimethyl-, cis- | | | | | CAS #: 638-04-0 | | |
| 9.530 | 568747 | 1.67806047 | 2.25 | 95 | NBS75K.1 | 64018 | 50 |
| Benzene, propyl- | | | | | CAS #: 103-65-1 | | |
| 13.531 | 425969 | 1.25680165 | 1.68 | 81 | NBS75K.1 | 3781 | 50 |
| Benzene, 1-ethyl-2-methyl- | | | | | CAS #: 611-14-3 | | |
| 14.141 | 624219 | 1.84172994 | 2.47 | 94 | NBS75K.1 | 64559 | 50 |
| Decane | | | | | CAS #: 124-18-5 | | |
| 14.255 | 477221 | 1.40801861 | 1.89 | 91 | NBS75K.1 | 66205 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10015.D
Report Date: 14-Apr-2009 16:44

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Benzene, 1-ethyl-3-methyl- | | | | | CAS #: 620-14-4 | | |
| 15.085 | 462671 | 1.36508792 | 1.83 | 90 | NBS75K.1 | 64564 | 50 |
| Octane, 2,4,6-trimethyl- | | | | | CAS #: 62016-37-9 | | |
| 15.167 | 438904 | 1.29496430 | 1.74 | 72 | NBS75K.1 | 11606 | 50 |
| Benzene, 1-methyl-3-propyl- | | | | | CAS #: 1074-43-7 | | |
| 15.534 | 692021 | 2.04177613 | 2.74 | 94 | NBS75K.1 | 6195 | 50 |
| Benzene, 2-ethyl-1,4-dimethyl- | | | | | CAS #: 1758-88-9 | | |
| 15.633 | 737885 | 2.17709408 | 2.92 | 94 | NBS75K.1 | 6219 | 50 |
| Benzene, 1-ethyl-2,3-dimethyl- | | | | | CAS #: 933-98-2 | | |
| 16.197 | 600817 | 1.77268258 | 2.38 | 96 | NBS75K.1 | 65556 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10015.D
Injection Date: 10-APR-2009 17:36
Instrument: 10air7.i
Client Sample ID:

HP ChemStation MS 10015.D: 3.384 to 19.322 Min

MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4296 1092045

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office:
Project No.: 04660024 PO No.:
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carl Davy
Phone No.: 612-607-6436
Results Due: Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-7008 Walker #2(8') | 3/30/09 | 1309 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 001 |
| VP-7008 Walker #1(8') | ↓ | 1436 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| VP-7008 Walker #3(8') | ↓ | 1700 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/30/09 | Time above | Delivery by: Pace | Date 3/31/09 | Time 1030 |
| Received by: Pace | Date 3/31/09 | Time 1030 | Relinquished by: | Date 3/31/09 | Time 1030 |
| Received by: | Date | Time | Relinquished by: Pace | Date 3/31/09 | Time 1205 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM Project # 1092045

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____ Temp Blank: Yes _____ No ✓

Thermometer Used 80344042, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature Amb Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/31/09 AP

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☒N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AR (summer) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 3 CANS, 1 F/C.

Project Manager Review: [illegible] Date: 3-31-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev. 3-31-09 JL

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 13, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092050001** | **B-7008 Walker #1 (26')** | Solid | 03/30/09 10:45 | 03/31/09 12:05 |
| **1092050002** | **B-7008 Walker #2 (26')** | Solid | 03/30/09 12:30 | 03/31/09 12:05 |
| **1092050003** | **B-7008 Walker #3 (26')** | Solid | 03/30/09 16:00 | 03/31/09 12:05 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1092050001** | **B-7008 Walker #1 (26')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092050002** | **B-7008 Walker #2 (26')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092050003** | **B-7008 Walker #3 (26')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** April 13, 2009

**General Information:**
3 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** April 13, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4135

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #1 (26')** **Lab ID: 1092050001** Collected: 03/30/09 10:45 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **4.7** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.0 | 6.3 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.7 | 1.6 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.7 | 0.58 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.7 | 0.49 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.7 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.7 | 0.33 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.7 | 0.94 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.7 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.7 | 1.7 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.7 | 0.62 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.7 | 0.48 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.7 | 0.75 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.7 | 0.20 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.7 | 1.4 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.7 | 0.51 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.7 | 0.81 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.7 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.7 | 1.2 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.7 | 0.67 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.7 | 0.58 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.7 | 0.68 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.7 | 0.24 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.7 | 0.76 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.7 | 0.65 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.7 | 0.54 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.7 | 0.50 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.95 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.71 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.7 | 0.64 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.7 | 0.60 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.7 | 0.76 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.7 | 0.70 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.7 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.51 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.50 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.7 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.7 | 0.74 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #1 (26')** **Lab ID: 1092050001** Collected: 03/30/09 10:45 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.7 | 0.67 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.7 | 0.59 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.7 | 0.38 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.7 | 0.80 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.7 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.7 | 0.59 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.7 | 0.11 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.41 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.70 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.7 | 0.87 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.7 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.7 | 0.80 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.7 | 0.66 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.7 | 0.38 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.7 | 0.73 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.7 | 0.68 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.7 | 0.55 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.7 | 0.83 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.7 | 1.3 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.7 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.7 | 0.14 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.7 | 0.82 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.7 | 0.53 | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 1868-53-7 | |
| Toluene-d8 (S) | 98 | % | 54-150 | | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | 42-125 | | 1 | 04/01/09 11:30 | 04/07/09 10:20 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #2 (26')** **Lab ID: 1092050002** Collected: 03/30/09 12:30 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **7.1** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.2 | 6.4 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.49 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.34 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.95 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.7 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.81 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.58 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.69 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.95 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.64 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #2 (26')** **Lab ID: 1092050002** Collected: 03/30/09 12:30 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.39 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.88 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.84 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.6 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 1868-53-7 | |
| Toluene-d8 (S) | 97 | % | 54-150 | | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 42-125 | | 1 | 04/01/09 11:30 | 04/07/09 10:43 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #3 (26')** **Lab ID: 1092050003** Collected: 03/30/09 16:00 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.5** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.8 | 6.6 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.9 | 1.6 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.9 | 0.51 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.9 | 0.35 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.9 | 0.98 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.9 | 1.8 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.9 | 0.65 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.9 | 0.50 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.9 | 0.79 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.9 | 0.20 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.9 | 1.4 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.9 | 0.53 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.9 | 0.84 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.9 | 0.54 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.9 | 1.2 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.9 | 0.70 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.9 | 0.60 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.9 | 0.71 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.9 | 0.79 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.9 | 0.68 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.9 | 0.57 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.9 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.99 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.75 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.9 | 0.67 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.9 | 0.63 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.9 | 0.79 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.9 | 0.73 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.9 | 1.0 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.54 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.52 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.9 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.9 | 0.77 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

**Sample: B-7008 Walker #3 (26')** **Lab ID: 1092050003** Collected: 03/30/09 16:00 Received: 03/31/09 12:05 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.9 | 0.69 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.9 | 0.40 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.9 | 0.84 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.9 | 0.55 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.9 | 0.62 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.9 | 0.12 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.43 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.73 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.9 | 0.91 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.9 | 1.2 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.9 | 0.84 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.9 | 0.69 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.9 | 0.39 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.9 | 0.77 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.9 | 0.71 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.9 | 0.57 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.9 | 0.87 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.9 | 1.4 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.9 | 0.15 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.9 | 0.86 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.9 | 1.1 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.9 | 0.56 | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/01/09 11:30 | 04/07/09 11:07 | 460-00-4 | |



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Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

QC Batch: MSV/4135 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1092050001, 1092050002, 1092050003

METHOD BLANK: 143370 | Matrix: Solid
Associated Lab Samples: 1092050001, 1092050002, 1092050003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Acetone | ug/kg | ND | 20.0 | 04/07/09 09:09 | |
| Allyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Benzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromoform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |



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Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

METHOD BLANK: 143370 Matrix: Solid

Associated Lab Samples: 1092050001, 1092050002, 1092050003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 04/07/09 09:09 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Naphthalene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| o-Xylene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Styrene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Toluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Bromofluorobenzene (S) | % | 100 | 42-125 | 04/07/09 09:09 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 04/07/09 09:09 | |
| Toluene-d8 (S) | % | 97 | 54-150 | 04/07/09 09:09 | |

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 53.9 | 52.0 | 108 | 104 | 75-127 | 4 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 42.5 | 43.7 | 85 | 87 | 65-125 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 51.2 | 51.0 | 102 | 102 | 75-125 | .5 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 49.8 | 49.0 | 100 | 98 | 67-131 | 2 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 57.6 | 55.2 | 115 | 110 | 75-136 | 4 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 50.0 | 47.7 | 100 | 95 | 62-127 | 5 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 53.0 | 51.5 | 106 | 103 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 42.8 | 41.5 | 86 | 83 | 47-163 | 3 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 48.1 | 50.5 | 96 | 101 | 57-125 | 5 | 20 | |
| Acetone | ug/kg | 50 | 30.7 | 33.0 | 61 | 66 | 49-179 | 7 | 20 | |
| Benzene | ug/kg | 50 | 53.5 | 51.7 | 107 | 103 | 72-127 | 3 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 55.0 | 53.6 | 110 | 107 | 75-125 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.2 | 53.2 | 104 | 106 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 59.7 | 58.0 | 119 | 116 | 61-129 | 3 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 55.2 | 54.0 | 110 | 108 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.4 | 51.5 | 107 | 103 | 75-125 | 3 | 20 | |
| Chloroethane | ug/kg | 50 | 55.2 | 54.6 | 110 | 109 | 66-135 | 1 | 20 | |
| Chloroform | ug/kg | 50 | 52.8 | 51.1 | 106 | 102 | 73-125 | 3 | 20 | |
| Chloromethane | ug/kg | 50 | 49.4 | 47.7 | 99 | 95 | 46-137 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 52.4 | 52.8 | 105 | 106 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 55.7 | 54.6 | 111 | 109 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.0 | 50.8 | 100 | 102 | 75-125 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.7 | 52.1 | 107 | 104 | 75-126 | 3 | 20 | |
| m&p-Xylene | ug/kg | 100 | 111 | 109 | 111 | 109 | 75-125 | 2 | 20 | |
| Methylene Chloride | ug/kg | 50 | 52.5 | 49.8 | 105 | 100 | 58-130 | 5 | 20 | |
| o-Xylene | ug/kg | 50 | 53.0 | 52.4 | 106 | 105 | 75-125 | 1 | 20 | |
| Styrene | ug/kg | 50 | 49.5 | 48.6 | 99 | 97 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.7 | 55.4 | 113 | 111 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 53.6 | 51.9 | 107 | 104 | 75-125 | 3 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 54.2 | 52.5 | 108 | 105 | 75-129 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.2 | 49.8 | 100 | 100 | 68-125 | .8 | 20 | |
| Trichloroethene | ug/kg | 50 | 59.5 | 57.0 | 119 | 114 | 75-125 | 4 | 20 | |
| Vinyl chloride | ug/kg | 50 | 53.0 | 53.0 | 106 | 106 | 58-135 | .005 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 100 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 86 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 96 | 97 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

QC Batch: MPRP/15226 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092050001, 1092050002, 1092050003

SAMPLE DUPLICATE: 602368

| Parameter | Units | 1092000003 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 25.1 | 25.9 | 3 | 30 | |

SAMPLE DUPLICATE: 602369

| Parameter | Units | 1092174002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 20.3 | 20.5 | .9 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4135

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092050

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092050001** | **B-7008 Walker #1 (26')** | EPA 8260 | MSV/4093 | EPA 8260 | MSV/4135 |
| **1092050002** | **B-7008 Walker #2 (26')** | EPA 8260 | MSV/4093 | EPA 8260 | MSV/4135 |
| **1092050003** | **B-7008 Walker #3 (26')** | EPA 8260 | MSV/4093 | EPA 8260 | MSV/4135 |
| **1092050001** | **B-7008 Walker #1 (26')** | % Moisture | MPRP/15226 | | |
| **1092050002** | **B-7008 Walker #2 (26')** | % Moisture | MPRP/15226 | | |
| **1092050003** | **B-7008 Walker #3 (26')** | % Moisture | MPRP/15226 | | |



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1120 + FREEZER

MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4313

1092050

Record Number _____ Through _____

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory Pace
Contact Person Carol Dary
Phone No. 612-607-6436
Results Due Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-7002 Walker #1 (26') | 3/30/09 | 1045 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-7003 Walker #2 (26') | ↓ | 1230 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| B-7008 Walker #3 (26') | ↓ | 1600 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |
| [redacted] | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 3/30/09 | Time above | Delivery by: Pace | Date 3/31/09 | Time 1030 |
| Received by: Pace | Date 3/31/09 | Time 1030 | Relinquished by: | Date 3/31/09 | Time 1030 |
| Received by: | Date | Time | Relinquished by: Pace | Date 3/31/09 | Time 1205 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: PAC | Date 3/31/09 | Time 1205 | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☒ N/A T = 2.6°C

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: STS/AECOM Project # 1092050

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other FOAM Temp Blank: Yes ☒ No _____

Thermometer Used ~~80344042~~, 179425 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.6 °C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 3/31/09

Comments:

| | | |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☒N/A | 6. |
| **Rush Turn Around Time Requested:** | ☒Yes ☐No ☐N/A | 7. UNPRES. TERRCORE KIT. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☒No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CMD Date: 3-31-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev. 3-31-2009

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

April 08, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 01, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092172001** | **B-7020 Walker #1 (27')** | Solid | 03/31/09 11:45 | 04/01/09 14:33 |
| **1092172002** | **B-7020 Walker #2 (22')** | Solid | 03/31/09 14:10 | 04/01/09 14:33 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1092172001** | **B-7020 Walker #1 (27')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092172002** | **B-7020 Walker #2 (22')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** April 08, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** April 08, 2009

**General Information:**
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4135

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Sample: B-7020 Walker #1 (27')** **Lab ID: 1092172001** Collected: 03/31/09 11:45 Received: 04/01/09 14:33 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **7.0** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.7 | 6.9 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.2 | 1.7 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.2 | 0.64 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.2 | 0.53 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.2 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.2 | 0.36 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.2 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.2 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.2 | 1.9 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.2 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.2 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.2 | 0.35 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.2 | 0.82 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.2 | 0.21 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.2 | 1.5 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.2 | 0.56 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.2 | 0.88 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.2 | 0.57 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.2 | 0.63 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.2 | 1.3 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.2 | 0.73 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.2 | 0.63 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.2 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.2 | 0.35 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.2 | 0.27 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.2 | 0.26 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.2 | 0.82 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.2 | 0.71 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.2 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.2 | 0.54 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.2 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.2 | 0.78 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.2 | 0.70 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.2 | 0.66 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.2 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.2 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.2 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.2 | 0.56 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.2 | 0.54 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.2 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.2 | 0.27 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.2 | 0.80 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Sample: B-7020 Walker #1 (27')** **Lab ID: 1092172001** Collected: 03/31/09 11:45 Received: 04/01/09 14:33 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.2 | 0.73 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.2 | 0.64 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.2 | 0.42 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.2 | 0.88 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.2 | 0.57 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.2 | 0.65 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.2 | 0.27 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.2 | 0.12 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.2 | 0.45 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.2 | 0.77 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.2 | 0.95 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.2 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.2 | 0.88 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.2 | 0.72 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.2 | 0.41 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.2 | 0.80 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.2 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.2 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.2 | 0.90 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.2 | 1.5 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.2 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.2 | 0.15 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.2 | 0.27 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.2 | 0.90 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10.3 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.2 | 0.58 | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 1868-53-7 | |
| Toluene-d8 (S) | 96 | % | 54-150 | | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/03/09 11:45 | 04/07/09 11:30 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Sample: B-7020 Walker #2 (22')** **Lab ID: 1092172002** Collected: 03/31/09 14:10 Received: 04/01/09 14:33 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.0** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.7 | 6.6 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.9 | 1.6 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.9 | 0.51 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.9 | 0.35 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.9 | 0.97 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.9 | 1.8 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.9 | 0.65 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.9 | 0.50 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.9 | 0.78 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.9 | 0.20 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.9 | 1.4 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.9 | 0.53 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.9 | 0.84 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.9 | 0.54 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.9 | 0.60 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.9 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.9 | 0.70 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.9 | 0.60 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.9 | 0.71 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.9 | 0.33 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.9 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.9 | 0.78 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.9 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.9 | 0.56 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.9 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.98 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.9 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.9 | 0.66 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.9 | 0.63 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.9 | 0.79 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.9 | 0.73 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.9 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.53 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.9 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.9 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.9 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

**Sample: B-7020 Walker #2 (22')** **Lab ID: 1092172002** Collected: 03/31/09 14:10 Received: 04/01/09 14:33 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.9 | 0.69 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.9 | 0.40 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.9 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.9 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.9 | 0.61 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.9 | 0.11 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.43 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.9 | 0.73 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.9 | 0.90 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.9 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.9 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.9 | 0.69 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.9 | 0.39 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.9 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.9 | 0.70 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.9 | 0.57 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.9 | 0.86 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.9 | 1.4 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.9 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.9 | 0.15 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.9 | 0.26 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.9 | 0.86 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.9 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.9 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 68-125 | | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 1868-53-7 | |
| Toluene-d8 (S) | 96 | % | 54-150 | | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/03/09 11:45 | 04/07/09 11:54 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

QC Batch: MSV/4135 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1092172001, 1092172002

METHOD BLANK: 143370 | Matrix: Solid
Associated Lab Samples: 1092172001, 1092172002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Acetone | ug/kg | ND | 20.0 | 04/07/09 09:09 | |
| Allyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Benzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromoform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

METHOD BLANK: 143370 Matrix: Solid

Associated Lab Samples: 1092172001, 1092172002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 04/07/09 09:09 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Naphthalene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| o-Xylene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Styrene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Toluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Bromofluorobenzene (S) | % | 100 | 42-125 | 04/07/09 09:09 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 04/07/09 09:09 | |
| Toluene-d8 (S) | % | 97 | 54-150 | 04/07/09 09:09 | |

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 53.9 | 52.0 | 108 | 104 | 75-127 | 4 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 42.5 | 43.7 | 85 | 87 | 65-125 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 51.2 | 51.0 | 102 | 102 | 75-125 | .5 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 49.8 | 49.0 | 100 | 98 | 67-131 | 2 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 57.6 | 55.2 | 115 | 110 | 75-136 | 4 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 50.0 | 47.7 | 100 | 95 | 62-127 | 5 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 53.0 | 51.5 | 106 | 103 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 42.8 | 41.5 | 86 | 83 | 47-163 | 3 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 48.1 | 50.5 | 96 | 101 | 57-125 | 5 | 20 | |
| Acetone | ug/kg | 50 | 30.7 | 33.0 | 61 | 66 | 49-179 | 7 | 20 | |
| Benzene | ug/kg | 50 | 53.5 | 51.7 | 107 | 103 | 72-127 | 3 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 55.0 | 53.6 | 110 | 107 | 75-125 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.2 | 53.2 | 104 | 106 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 59.7 | 58.0 | 119 | 116 | 61-129 | 3 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 55.2 | 54.0 | 110 | 108 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.4 | 51.5 | 107 | 103 | 75-125 | 3 | 20 | |
| Chloroethane | ug/kg | 50 | 55.2 | 54.6 | 110 | 109 | 66-135 | 1 | 20 | |
| Chloroform | ug/kg | 50 | 52.8 | 51.1 | 106 | 102 | 73-125 | 3 | 20 | |
| Chloromethane | ug/kg | 50 | 49.4 | 47.7 | 99 | 95 | 46-137 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 52.4 | 52.8 | 105 | 106 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 55.7 | 54.6 | 111 | 109 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.0 | 50.8 | 100 | 102 | 75-125 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.7 | 52.1 | 107 | 104 | 75-126 | 3 | 20 | |
| m&p-Xylene | ug/kg | 100 | 111 | 109 | 111 | 109 | 75-125 | 2 | 20 | |
| Methylene Chloride | ug/kg | 50 | 52.5 | 49.8 | 105 | 100 | 58-130 | 5 | 20 | |
| o-Xylene | ug/kg | 50 | 53.0 | 52.4 | 106 | 105 | 75-125 | 1 | 20 | |
| Styrene | ug/kg | 50 | 49.5 | 48.6 | 99 | 97 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.7 | 55.4 | 113 | 111 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 53.6 | 51.9 | 107 | 104 | 75-125 | 3 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 54.2 | 52.5 | 108 | 105 | 75-129 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.2 | 49.8 | 100 | 100 | 68-125 | .8 | 20 | |
| Trichloroethene | ug/kg | 50 | 59.5 | 57.0 | 119 | 114 | 75-125 | 4 | 20 | |
| Vinyl chloride | ug/kg | 50 | 53.0 | 53.0 | 106 | 106 | 58-135 | .005 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 100 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 86 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 96 | 97 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

QC Batch: MPRP/15226
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092172001, 1092172002

SAMPLE DUPLICATE: 602368

| Parameter | Units | 1092000003 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 25.1 | 25.9 | 3 | 30 | |

SAMPLE DUPLICATE: 602369

| Parameter | Units | 1092174002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 20.3 | 20.5 | .9 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4135

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092172

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092172001** | **B-7020 Walker #1 (27')** | EPA 8260 | MSV/4114 | EPA 8260 | MSV/4135 |
| **1092172002** | **B-7020 Walker #2 (22')** | EPA 8260 | MSV/4114 | EPA 8260 | MSV/4135 |
| **1092172001** | **B-7020 Walker #1 (27')** | % Moisture | MPRP/15226 | | |
| **1092172002** | **B-7020 Walker #2 (22')** | % Moisture | MPRP/15226 | | |



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MPCA Project

# Chain of Custody Record

№ 4855

STS | AECOM

1092172

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____

Laboratory: Pace
Contact Person: Carol Dary
Phone No. 612-607-6436
Results Due: Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-7020 Walker #1(27') | 3/31/09 | 1145 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | |
| B-7020 Walker #2(22') | ↓ | 1410 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Orlando | Date 3/31/09 | Time above | Delivery by: Pace | Date | Time |
| Received by: Pace | Date 4/1/09 | Time 1332 | Relinquished by: Pace | Date 4/1/09 | Time 1433 |
| Received by: Pace | Date 4/1/09 | Time 1433 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T=9.2

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM  Project # 1092172

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no  Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____  Temp Blank: Yes ✓ No _____

Thermometer Used 80344042, 179426  Type of Ice: (Wet) Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 9.2  Biological Tissue is Frozen: Yes No  Date and Initials of person examining contents: 4/1/09 SM

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:**

Person Contacted: Peter Kazepeda  Date/Time: 4/1/09 3:30 pm  Field Data Required? Y / N

Comments/ Resolution: Analyze ~~we~~ even though received at 9.2°C

Project Manager Review: APO  Date: 4/1/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Rev 1 11/19/08

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

April 09, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092232001** | **B-7020 Walker #3 (27')** | Solid | 04/01/09 09:30 | 04/02/09 13:06 |
| **1092232002** | **B-6225 37th #1 (50')** | Solid | 04/01/09 16:00 | 04/02/09 13:06 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1092232001** | **B-7020 Walker #3 (27')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092232002** | **B-6225 37th #1 (50')** | % Moisture | JDL | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** April 09, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** April 09, 2009

**General Information:**
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4135

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Sample: B-7020 Walker #3 (27')** **Lab ID: 1092232001** Collected: 04/01/09 09:30 Received: 04/02/09 13:06 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.7** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.1 | 6.3 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.49 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.33 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.94 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.7 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.51 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.58 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.58 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.24 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.95 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.64 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.70 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Sample: B-7020 Walker #3 (27')** **Lab ID: 1092232001** Collected: 04/01/09 09:30 Received: 04/02/09 13:06 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.38 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.41 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.87 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.3 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/03/09 11:45 | 04/07/09 12:17 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Sample: B-6225 37th #1 (50')** **Lab ID: 1092232002** Collected: 04/01/09 16:00 Received: 04/02/09 13:06 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **8.0** | % | 0.10 | 0.10 | 1 | | 04/02/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.1 | 6.4 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.49 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.34 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.94 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.7 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.58 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.58 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.24 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.95 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.64 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.70 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

**Sample: B-6225 37th #1 (50')** **Lab ID: 1092232002** Collected: 04/01/09 16:00 Received: 04/02/09 13:06 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.39 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.87 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.84 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.3 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.5 | 1.0 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 1868-53-7 | |
| Toluene-d8 (S) | 96 | % | 54-150 | | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | 42-125 | | 1 | 04/03/09 11:45 | 04/07/09 12:41 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

QC Batch: MSV/4135 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1092232001, 1092232002

METHOD BLANK: 143370 | Matrix: Solid
Associated Lab Samples: 1092232001, 1092232002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Acetone | ug/kg | ND | 20.0 | 04/07/09 09:09 | |
| Allyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Benzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromoform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Bromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloroform | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Chloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dibromomethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

METHOD BLANK: 143370 Matrix: Solid

Associated Lab Samples: 1092232001, 1092232002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 04/07/09 09:09 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Naphthalene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| o-Xylene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Styrene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Toluene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichloroethene | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 04/07/09 09:09 | |
| 4-Bromofluorobenzene (S) | % | 100 | 42-125 | 04/07/09 09:09 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 04/07/09 09:09 | |
| Toluene-d8 (S) | % | 97 | 54-150 | 04/07/09 09:09 | |

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 53.9 | 52.0 | 108 | 104 | 75-127 | 4 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 42.5 | 43.7 | 85 | 87 | 65-125 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 51.2 | 51.0 | 102 | 102 | 75-125 | .5 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 49.8 | 49.0 | 100 | 98 | 67-131 | 2 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 57.6 | 55.2 | 115 | 110 | 75-136 | 4 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 50.0 | 47.7 | 100 | 95 | 62-127 | 5 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 53.0 | 51.5 | 106 | 103 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 42.8 | 41.5 | 86 | 83 | 47-163 | 3 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 48.1 | 50.5 | 96 | 101 | 57-125 | 5 | 20 | |
| Acetone | ug/kg | 50 | 30.7 | 33.0 | 61 | 66 | 49-179 | 7 | 20 | |
| Benzene | ug/kg | 50 | 53.5 | 51.7 | 107 | 103 | 72-127 | 3 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 55.0 | 53.6 | 110 | 107 | 75-125 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.2 | 53.2 | 104 | 106 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

LABORATORY CONTROL SAMPLE & LCSD: 143371 143372

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 59.7 | 58.0 | 119 | 116 | 61-129 | 3 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 55.2 | 54.0 | 110 | 108 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.4 | 51.5 | 107 | 103 | 75-125 | 3 | 20 | |
| Chloroethane | ug/kg | 50 | 55.2 | 54.6 | 110 | 109 | 66-135 | 1 | 20 | |
| Chloroform | ug/kg | 50 | 52.8 | 51.1 | 106 | 102 | 73-125 | 3 | 20 | |
| Chloromethane | ug/kg | 50 | 49.4 | 47.7 | 99 | 95 | 46-137 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 52.4 | 52.8 | 105 | 106 | 72-125 | .8 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 55.7 | 54.6 | 111 | 109 | 61-125 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 50.0 | 50.8 | 100 | 102 | 75-125 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 53.7 | 52.1 | 107 | 104 | 75-126 | 3 | 20 | |
| m&p-Xylene | ug/kg | 100 | 111 | 109 | 111 | 109 | 75-125 | 2 | 20 | |
| Methylene Chloride | ug/kg | 50 | 52.5 | 49.8 | 105 | 100 | 58-130 | 5 | 20 | |
| o-Xylene | ug/kg | 50 | 53.0 | 52.4 | 106 | 105 | 75-125 | 1 | 20 | |
| Styrene | ug/kg | 50 | 49.5 | 48.6 | 99 | 97 | 75-125 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.7 | 55.4 | 113 | 111 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 53.6 | 51.9 | 107 | 104 | 75-125 | 3 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 54.2 | 52.5 | 108 | 105 | 75-129 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 50.2 | 49.8 | 100 | 100 | 68-125 | .8 | 20 | |
| Trichloroethene | ug/kg | 50 | 59.5 | 57.0 | 119 | 114 | 75-125 | 4 | 20 | |
| Vinyl chloride | ug/kg | 50 | 53.0 | 53.0 | 106 | 106 | 58-135 | .005 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 100 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 86 | 88 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 96 | 97 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

QC Batch: MPRP/15228
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092232001, 1092232002

SAMPLE DUPLICATE: 602442

| Parameter | Units | 1092101001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 21.6 | 22.5 | 4 | 30 | |

SAMPLE DUPLICATE: 602443

| Parameter | Units | 1092207004 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 12.2 | 13.2 | 7 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4135

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest
Pace Project No.: 1092232

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092232001** | **B-7020 Walker #3 (27')** | EPA 8260 | MSV/4114 | EPA 8260 | MSV/4135 |
| **1092232002** | **B-6225 37th #1 (50')** | EPA 8260 | MSV/4114 | EPA 8260 | MSV/4135 |
| **1092232001** | **B-7020 Walker #3 (27')** | % Moisture | MPRP/15228 | | |
| **1092232002** | **B-6225 37th #1 (50')** | % Moisture | MPRP/15228 | | |



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MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4326

1092232

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Mpls.
Project No. 0460024 PO No.
Project Name St Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory Pace
Contact Person Carol Dary
Phone No. 612-607-6436
Results Due Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-7020 Walker #3 (27') | 4/1/09 | 930 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-6225 374th #1 (50') | ↓ | 1600 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 4/1/09 | Time above | Delivery by: Bob D- RCC 25 | Date 4/2 | Time 12.30 |
| Received by: Sylvrath / PACE | Date 4/2/09 | Time 13:06 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T25-2

# Sample Condition Upon Receipt

Pace Analytical

**Client Name:** STS/AECom **Project #** 1092232

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other

**Tracking #:**

Optional
Proj. Due Date:
Proj. Name:

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other Temp Blank: Yes No ✓

**Thermometer Used** 80344042, 179425 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

**Cooler Temperature** 5.2 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/2/09 SL

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL | ☑Yes ☐No ☐N/A | 12. |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, Wt-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials (>6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:**

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** CAD **Date:** 4-7-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold,incorrect preservative,out of temp, incorrect containers)

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

April 17, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092269001** | **VP-7020 Walker#3 (8')** | Air | 04/01/09 10:51 | 04/02/09 13:06 |
| **1092269002** | **VP-7020 Walker#2 (10')** | Air | 04/01/09 11:20 | 04/02/09 13:06 |
| **1092269003** | **VP-6225 37th. #1(8')** | Air | 04/01/09 16:56 | 04/02/09 13:06 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1092269001** | **VP-7020 Walker#3 (8')** | TO-15 | AH | 60 |
| **1092269002** | **VP-7020 Walker#2 (10')** | TO-15 | AH | 60 |
| **1092269003** | **VP-6225 37th. #1(8')** | TO-15 | AH | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

**General Information:**
3 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8390

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 606276)
  - Ethanol
- DUP (Lab ID: 607266)
  - Ethanol
- LCS (Lab ID: 606277)
  - Ethanol
- VP-6225 37th. #1(8') (Lab ID: 1092269003)
  - Ethanol

QC Batch: AIR/8398

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 607348)
  - Ethanol
- DUP (Lab ID: 607614)
  - Ethanol
- LCS (Lab ID: 607349)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8390

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- VP-6225 37th. #1(8') (Lab ID: 1092269003)
  - Tetrahydrofuran

QC Batch: AIR/8398

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 607348)
  - Carbon tetrachloride
- DUP (Lab ID: 607614)
  - Carbon tetrachloride
- LCS (Lab ID: 607349)
  - Carbon tetrachloride
- VP-7020 Walker#2 (10') (Lab ID: 1092269002)



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

QC Batch: AIR/8398

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- Carbon tetrachloride
- Ethanol

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8382

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

- LCS (Lab ID: 605379)
  - Naphthalene

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 605379)
  - 1,2,4-Trichlorobenzene

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8382

R1: RPD value was outside control limits.

- DUP (Lab ID: 606667)
  - 4-Ethyltoluene
  - Dichlorodifluoromethane
  - Tetrahydrofuran
  - n-Hexane

QC Batch: AIR/8390

R1: RPD value was outside control limits.

- DUP (Lab ID: 607266)
  - 1,2,4-Trichlorobenzene
  - 1,2,4-Trimethylbenzene
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 2-Propanol
  - Acetone
  - Carbon disulfide
  - Dichlorodifluoromethane
  - Ethanol



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

QC Batch: AIR/8390

R1: RPD value was outside control limits.

- Ethylbenzene
- Propylene
- Tetrachloroethene
- Toluene
- Trichloroethene
- Trichlorofluoromethane
- m&p-Xylene
- n-Hexane

QC Batch: AIR/8398

R1: RPD value was outside control limits.

- DUP (Lab ID: 607614)
  - 2-Propanol
  - Naphthalene

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- VP-7020 Walker#3 (8') (Lab ID: 1092269001)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).
- VP-7020 Walker#2 (10') (Lab ID: 1092269002)

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- VP-6225 37th. #1(8') (Lab ID: 1092269003)

Analyte Comments:

QC Batch: AIR/8390

1M: The internal standard recoveries associated with these results exceed the upper control limit. The reported results should be considered estimated values.
- DUP (Lab ID: 607266)
  - Dichlorodifluoromethane

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- VP-6225 37th. #1(8') (Lab ID: 1092269003)
  - Propylene

QC Batch: AIR/8398

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- DUP (Lab ID: 607614)
  - cis-1,2-Dichloroethene
  - Tetrachloroethene
  - Trichloroethene
- VP-7020 Walker#2 (10') (Lab ID: 1092269002)
  - Methylene Chloride



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-7020 Walker#3 (8')** **Lab ID: 1092269001** Collected: 04/01/09 10:51 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **21.3** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/10/09 21:44 | 67-64-1 | |
| Benzene | **4.7** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/10/09 21:44 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 21:44 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/10/09 21:44 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/10/09 21:44 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/10/09 21:44 | 106-99-0 | |
| 2-Butanone (MEK) | **3.7** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 21:44 | 78-93-3 | |
| Carbon disulfide | **3.6** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/10/09 21:44 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/10/09 21:44 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 21:44 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/10/09 21:44 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 21:44 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/10/09 21:44 | 74-87-3 | |
| Cyclohexane | **3.4** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/10/09 21:44 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/10/09 21:44 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 21:44 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 21:44 | 95-50-1 | |
| 1,3-Dichlorobenzene | **13.9** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 21:44 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/10/09 21:44 | 106-46-7 | |
| Dichlorodifluoromethane | **1.9** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/10/09 21:44 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 21:44 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/10/09 21:44 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 21:44 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 21:44 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/10/09 21:44 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/10/09 21:44 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 21:44 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/10/09 21:44 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 21:44 | 76-14-2 | |
| Ethanol | **9.9** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/10/09 21:44 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 21:44 | 141-78-6 | |
| Ethylbenzene | **5.0** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 21:44 | 100-41-4 | |
| 4-Ethyltoluene | **3.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 21:44 | 622-96-8 | |
| n-Heptane | **4.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 21:44 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/10/09 21:44 | 87-68-3 | |
| n-Hexane | **10.4** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/10/09 21:44 | 110-54-3 | |
| 2-Hexanone | **9.7** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 21:44 | 591-78-6 | |
| Methylene Chloride | **22.4** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 21:44 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/10/09 21:44 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/10/09 21:44 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/10/09 21:44 | 91-20-3 | L1 |
| 2-Propanol | **8.3** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 21:44 | 67-63-0 | |
| Propylene | **48.8** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/10/09 21:44 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/10/09 21:44 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 21:44 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/10/09 21:44 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-7020 Walker#3 (8')** **Lab ID: 1092269001** Collected: 04/01/09 10:51 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **1.6** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/10/09 21:44 | 109-99-9 | |
| Toluene | **41.6** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/10/09 21:44 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/10/09 21:44 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 21:44 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 21:44 | 79-00-5 | |
| Trichloroethene | **2.9** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 21:44 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/10/09 21:44 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/10/09 21:44 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **15.5** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 21:44 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **4.3** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/10/09 21:44 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/10/09 21:44 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/10/09 21:44 | 75-01-4 | |
| m&p-Xylene | **12.8** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/10/09 21:44 | 1330-20-7 | |
| o-Xylene | **4.1** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/10/09 21:44 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-7020 Walker#2 (10')** **Lab ID: 1092269002** Collected: 04/01/09 11:20 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **85.9** | ug/m3 | 1.7 | 0.86 | 3.59 | | 04/15/09 20:10 | 67-64-1 | |
| Benzene | **5.7** | ug/m3 | 2.3 | 1.2 | 3.59 | | 04/15/09 20:10 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 5.0 | 2.5 | 3.59 | | 04/15/09 20:10 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 7.5 | 3.8 | 3.59 | | 04/15/09 20:10 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 2.8 | 1.4 | 3.59 | | 04/15/09 20:10 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 1.6 | 0.81 | 3.59 | | 04/15/09 20:10 | 106-99-0 | |
| 2-Butanone (MEK) | **4.9** | ug/m3 | 2.2 | 1.1 | 3.59 | | 04/15/09 20:10 | 78-93-3 | |
| Carbon disulfide | ND | ug/m3 | 2.3 | 1.1 | 3.59 | | 04/15/09 20:10 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 4.7 | 2.3 | 3.59 | | 04/15/09 20:10 | 56-23-5 | CL |
| Chlorobenzene | ND | ug/m3 | 3.4 | 1.7 | 3.59 | | 04/15/09 20:10 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 1.9 | 0.97 | 3.59 | | 04/15/09 20:10 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 3.6 | 1.8 | 3.59 | | 04/15/09 20:10 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 1.5 | 0.75 | 3.59 | | 04/15/09 20:10 | 74-87-3 | |
| Cyclohexane | **26.1** | ug/m3 | 2.4 | 1.2 | 3.59 | | 04/15/09 20:10 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 6.1 | 3.1 | 3.59 | | 04/15/09 20:10 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 5.7 | 2.9 | 3.59 | | 04/15/09 20:10 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 4.3 | 2.2 | 3.59 | | 04/15/09 20:10 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 4.3 | 2.2 | 3.59 | | 04/15/09 20:10 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 4.3 | 2.2 | 3.59 | | 04/15/09 20:10 | 106-46-7 | |
| Dichlorodifluoromethane | **25.2** | ug/m3 | 3.6 | 1.8 | 3.59 | | 04/15/09 20:10 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 2.9 | 1.5 | 3.59 | | 04/15/09 20:10 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 2.9 | 1.5 | 3.59 | | 04/15/09 20:10 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 2.9 | 1.5 | 3.59 | | 04/15/09 20:10 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 2.9 | 1.5 | 3.59 | | 04/15/09 20:10 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 2.9 | 1.5 | 3.59 | | 04/15/09 20:10 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 3.4 | 1.7 | 3.59 | | 04/15/09 20:10 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 3.3 | 1.7 | 3.59 | | 04/15/09 20:10 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 3.3 | 1.7 | 3.59 | | 04/15/09 20:10 | 10061-02-6 | |
| Dichlorotetrafluoroethane | **10** | ug/m3 | 5.0 | 2.5 | 3.59 | | 04/15/09 20:10 | 76-14-2 | |
| Ethanol | **22.6** | ug/m3 | 6.8 | 3.1 | 3.59 | | 04/15/09 20:10 | 64-17-5 | CL |
| Ethyl acetate | ND | ug/m3 | 2.6 | 1.3 | 3.59 | | 04/15/09 20:10 | 141-78-6 | |
| Ethylbenzene | **8.2** | ug/m3 | 3.2 | 1.6 | 3.59 | | 04/15/09 20:10 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 9.0 | 4.5 | 3.59 | | 04/15/09 20:10 | 622-96-8 | |
| n-Heptane | **11.0** | ug/m3 | 3.0 | 1.5 | 3.59 | | 04/15/09 20:10 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 7.9 | 3.9 | 3.59 | | 04/15/09 20:10 | 87-68-3 | |
| n-Hexane | **96.3** | ug/m3 | 2.6 | 1.3 | 3.59 | | 04/15/09 20:10 | 110-54-3 | |
| 2-Hexanone | **9.5** | ug/m3 | 3.0 | 1.5 | 3.59 | | 04/15/09 20:10 | 591-78-6 | |
| Methylene Chloride | **1240** | ug/m3 | 2.5 | 1.3 | 3.59 | | 04/15/09 20:10 | 75-09-2 | E |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 3.0 | 1.5 | 3.59 | | 04/15/09 20:10 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 2.6 | 1.3 | 3.59 | | 04/15/09 20:10 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 9.7 | 4.8 | 3.59 | | 04/15/09 20:10 | 91-20-3 | |
| 2-Propanol | **39.2** | ug/m3 | 9.0 | 4.5 | 3.59 | | 04/15/09 20:10 | 67-63-0 | |
| Propylene | **30.2** | ug/m3 | 1.3 | 0.63 | 3.59 | | 04/15/09 20:10 | 115-07-1 | |
| Styrene | ND | ug/m3 | 3.1 | 1.6 | 3.59 | | 04/15/09 20:10 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 5.0 | 2.5 | 3.59 | | 04/15/09 20:10 | 79-34-5 | |
| Tetrachloroethene | **153** | ug/m3 | 5.0 | 2.5 | 3.59 | | 04/15/09 20:10 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-7020 Walker#2 (10')** **Lab ID: 1092269002** Collected: 04/01/09 11:20 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **8.0** | ug/m3 | 2.2 | 1.1 | 3.59 | | 04/15/09 20:10 | 109-99-9 | |
| Toluene | **39.6** | ug/m3 | 2.8 | 1.4 | 3.59 | | 04/15/09 20:10 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 3.6 | 1.8 | 3.59 | | 04/15/09 20:10 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 3.9 | 2.0 | 3.59 | | 04/15/09 20:10 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 3.9 | 2.0 | 3.59 | | 04/15/09 20:10 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 3.9 | 2.0 | 3.59 | | 04/15/09 20:10 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 3.9 | 2.0 | 3.59 | | 04/15/09 20:10 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 5.7 | 2.9 | 3.59 | | 04/15/09 20:10 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **14.3** | ug/m3 | 9.0 | 4.5 | 3.59 | | 04/15/09 20:10 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 9.0 | 4.5 | 3.59 | | 04/15/09 20:10 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 2.5 | 1.3 | 3.59 | | 04/15/09 20:10 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 1.9 | 0.93 | 3.59 | | 04/15/09 20:10 | 75-01-4 | |
| m&p-Xylene | **19.4** | ug/m3 | 6.3 | 3.2 | 3.59 | | 04/15/09 20:10 | 1330-20-7 | |
| o-Xylene | **3.9** | ug/m3 | 3.2 | 1.6 | 3.59 | | 04/15/09 20:10 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-6225 37th. #1(8')** **Lab ID: 1092269003** Collected: 04/01/09 16:56 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **42.2** | ug/m3 | 0.66 | 0.33 | 1.38 | | 04/14/09 17:59 | 67-64-1 | |
| Benzene | **12.0** | ug/m3 | 0.90 | 0.45 | 1.38 | | 04/14/09 17:59 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.97 | 1.38 | | 04/14/09 17:59 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.9 | 1.4 | 1.38 | | 04/14/09 17:59 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.55 | 1.38 | | 04/14/09 17:59 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.62 | 0.31 | 1.38 | | 04/14/09 17:59 | 106-99-0 | |
| 2-Butanone (MEK) | **23.4** | ug/m3 | 0.83 | 0.41 | 1.38 | | 04/14/09 17:59 | 78-93-3 | |
| Carbon disulfide | **13.3** | ug/m3 | 0.87 | 0.43 | 1.38 | | 04/14/09 17:59 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.8 | 0.90 | 1.38 | | 04/14/09 17:59 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.65 | 1.38 | | 04/14/09 17:59 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.75 | 0.37 | 1.38 | | 04/14/09 17:59 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.4 | 0.68 | 1.38 | | 04/14/09 17:59 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.58 | 0.29 | 1.38 | | 04/14/09 17:59 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.94 | 0.47 | 1.38 | | 04/14/09 17:59 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.2 | 1.38 | | 04/14/09 17:59 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.2 | 1.1 | 1.38 | | 04/14/09 17:59 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.7 | 0.83 | 1.38 | | 04/14/09 17:59 | 95-50-1 | |
| 1,3-Dichlorobenzene | **12.9** | ug/m3 | 1.7 | 0.83 | 1.38 | | 04/14/09 17:59 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.7 | 0.83 | 1.38 | | 04/14/09 17:59 | 106-46-7 | |
| Dichlorodifluoromethane | **2.2** | ug/m3 | 1.4 | 0.69 | 1.38 | | 04/14/09 17:59 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.57 | 1.38 | | 04/14/09 17:59 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.57 | 1.38 | | 04/14/09 17:59 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.56 | 1.38 | | 04/14/09 17:59 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.56 | 1.38 | | 04/14/09 17:59 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.56 | 1.38 | | 04/14/09 17:59 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.65 | 1.38 | | 04/14/09 17:59 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.3 | 0.63 | 1.38 | | 04/14/09 17:59 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.3 | 0.63 | 1.38 | | 04/14/09 17:59 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.97 | 1.38 | | 04/14/09 17:59 | 76-14-2 | |
| Ethanol | **15.4** | ug/m3 | 2.6 | 1.2 | 1.38 | | 04/14/09 17:59 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 1.0 | 0.50 | 1.38 | | 04/14/09 17:59 | 141-78-6 | |
| Ethylbenzene | **10.3** | ug/m3 | 1.2 | 0.61 | 1.38 | | 04/14/09 17:59 | 100-41-4 | |
| 4-Ethyltoluene | **3.6** | ug/m3 | 3.4 | 1.7 | 1.38 | | 04/14/09 17:59 | 622-96-8 | |
| n-Heptane | **11.1** | ug/m3 | 1.1 | 0.57 | 1.38 | | 04/14/09 17:59 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 3.0 | 1.5 | 1.38 | | 04/14/09 17:59 | 87-68-3 | |
| n-Hexane | **20.6** | ug/m3 | 0.99 | 0.50 | 1.38 | | 04/14/09 17:59 | 110-54-3 | |
| 2-Hexanone | **9.1** | ug/m3 | 1.1 | 0.57 | 1.38 | | 04/14/09 17:59 | 591-78-6 | |
| Methylene Chloride | **7.8** | ug/m3 | 0.98 | 0.49 | 1.38 | | 04/14/09 17:59 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | **8.4** | ug/m3 | 1.1 | 0.57 | 1.38 | | 04/14/09 17:59 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.0 | 0.50 | 1.38 | | 04/14/09 17:59 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.7 | 1.9 | 1.38 | | 04/14/09 17:59 | 91-20-3 | |
| 2-Propanol | **13.5** | ug/m3 | 3.4 | 1.7 | 1.38 | | 04/14/09 17:59 | 67-63-0 | |
| Propylene | **81.0** | ug/m3 | 0.48 | 0.24 | 1.38 | | 04/14/09 17:59 | 115-07-1 | E |
| Styrene | ND | ug/m3 | 1.2 | 0.60 | 1.38 | | 04/14/09 17:59 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.97 | 1.38 | | 04/14/09 17:59 | 79-34-5 | |
| Tetrachloroethene | **4.0** | ug/m3 | 1.9 | 0.97 | 1.38 | | 04/14/09 17:59 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

**Sample: VP-6225 37th. #1(8')** **Lab ID: 1092269003** Collected: 04/01/09 16:56 Received: 04/02/09 13:06 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **4.5** | ug/m3 | 0.83 | 0.41 | 1.38 | | 04/14/09 17:59 | 109-99-9 | CH |
| Toluene | **38.5** | ug/m3 | 1.1 | 0.53 | 1.38 | | 04/14/09 17:59 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.4 | 0.68 | 1.38 | | 04/14/09 17:59 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.76 | 1.38 | | 04/14/09 17:59 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.76 | 1.38 | | 04/14/09 17:59 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.76 | 1.38 | | 04/14/09 17:59 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.76 | 1.38 | | 04/14/09 17:59 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.2 | 1.1 | 1.38 | | 04/14/09 17:59 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **13.9** | ug/m3 | 3.4 | 1.7 | 1.38 | | 04/14/09 17:59 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.38 | | 04/14/09 17:59 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.38 | | 04/14/09 17:59 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.72 | 0.36 | 1.38 | | 04/14/09 17:59 | 75-01-4 | |
| m&p-Xylene | **10.4** | ug/m3 | 2.4 | 1.2 | 1.38 | | 04/14/09 17:59 | 1330-20-7 | |
| o-Xylene | **4.3** | ug/m3 | 1.2 | 0.61 | 1.38 | | 04/14/09 17:59 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

QC Batch: AIR/8382
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092269001

METHOD BLANK: 605378
Matrix: Air
Associated Lab Samples: 1092269001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/10/09 15:32 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/10/09 15:32 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/10/09 15:32 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/10/09 15:32 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/10/09 15:32 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/10/09 15:32 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/10/09 15:32 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/10/09 15:32 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/10/09 15:32 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/10/09 15:32 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| Acetone | ug/m3 | ND | 0.48 | 04/10/09 15:32 | |
| Benzene | ug/m3 | ND | 0.65 | 04/10/09 15:32 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/10/09 15:32 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/10/09 15:32 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/10/09 15:32 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/10/09 15:32 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/10/09 15:32 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/10/09 15:32 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/10/09 15:32 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/10/09 15:32 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/10/09 15:32 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/10/09 15:32 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/10/09 15:32 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/10/09 15:32 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/10/09 15:32 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/10/09 15:32 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/10/09 15:32 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/10/09 15:32 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/10/09 15:32 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

METHOD BLANK: 605378 Matrix: Air

Associated Lab Samples: 1092269001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/10/09 15:32 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/10/09 15:32 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/10/09 15:32 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/10/09 15:32 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/10/09 15:32 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/10/09 15:32 | |
| Propylene | ug/m3 | ND | 0.35 | 04/10/09 15:32 | |
| Styrene | ug/m3 | ND | 0.87 | 04/10/09 15:32 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/10/09 15:32 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/10/09 15:32 | |
| Toluene | ug/m3 | ND | 0.77 | 04/10/09 15:32 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/10/09 15:32 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/10/09 15:32 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/10/09 15:32 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/10/09 15:32 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/10/09 15:32 | |

LABORATORY CONTROL SAMPLE: 605379

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 63.6 | 111 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 78.2 | 110 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 58.6 | 105 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 66.4 | 87 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 38.9 | 94 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 44.1 | 109 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 114 | 152 | 30-150 | L3 |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 55.6 | 112 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 87.9 | 108 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 71.9 | 115 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 45.0 | 100 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 60.2 | 119 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 57.7 | 117 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 25.6 | 113 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 70.2 | 109 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 70.6 | 112 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 34.7 | 112 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 46.6 | 111 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 25.6 | 108 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 51.4 | 103 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 45.9 | 108 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 19.9 | 82 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 36.0 | 110 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 72.5 | 106 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

LABORATORY CONTROL SAMPLE: 605379

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 108 | 101 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 43.3 | 109 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 39.6 | 121 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 70.7 | 109 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 52.3 | 113 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 30.6 | 115 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 54.6 | 113 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 22.9 | 109 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 45.4 | 109 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 61.7 | 127 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 44.4 | 124 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 89.7 | 99 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 53.6 | 109 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 68.8 | 97 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 11.7 | 61 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 49.2 | 132 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 52.7 | 108 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 142 | 133 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 100 | 108 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 40.9 | 112 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 32.2 | 93 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 42.3 | 99 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 46.2 | 118 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 93.7 | 185 | 30-150 | L1 |
| o-Xylene | ug/m3 | 45.5 | 48.6 | 107 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 22.3 | 120 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 46.5 | 107 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 76.5 | 107 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 19.0 | 84 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.1 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 46.7 | 111 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 53.5 | 109 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.3 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 57.6 | 103 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 40.4 | 110 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 29.4 | 110 | 57-132 | |

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 15.5 | 18.3 | 17 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 4.3 | 5.2 | 20 | 25 | |
| 1,3-Butadiene | ug/m3 | ND | 8.4 | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 13.9 | 16.8 | 19 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 3.7 | 4.2 | 15 | 25 | |
| 2-Hexanone | ug/m3 | 9.7 | 11.8 | 20 | 25 | |
| 2-Propanol | ug/m3 | 8.3 | 9.9 | 17 | 25 | |
| 4-Ethyltoluene | ug/m3 | 3.4 | 4.5 | 29 | 25 | R1 |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 21.3 | 26.9 | 23 | 25 | |
| Benzene | ug/m3 | 4.7 | 5.7 | 18 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 3.6 | 4.4 | 20 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.4 | 4.2 | 20 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 1.9 | 2.5 | 28 | 25 | R1 |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 9.9 | 12.6 | 24 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 5.0 | 6.2 | 22 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 12.8 | 15.9 | 22 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 22.4 | 95.7 | 124 | 25 | |
| n-Heptane | ug/m3 | 4.8 | 5.5 | 14 | 25 | |
| n-Hexane | ug/m3 | 10.4 | 15.0 | 37 | 25 | R1 |
| Naphthalene | ug/m3 | ND | 5.6 | | 25 | |
| o-Xylene | ug/m3 | 4.1 | 5.2 | 24 | 25 | |
| Propylene | ug/m3 | 48.8 | 59.6 | 20 | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | 1.6 | 2.0 | 26 | 25 | R1 |
| Toluene | ug/m3 | 41.6 | 49.4 | 17 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 606667

| Parameter | Units | 1092269001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 2.9 | 3.5 | 16 | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.6 | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

QC Batch: AIR/8390
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092269003

METHOD BLANK: 606276
Matrix: Air
Associated Lab Samples: 1092269003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/14/09 15:55 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/14/09 15:55 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/14/09 15:55 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/14/09 15:55 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/14/09 15:55 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/14/09 15:55 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/14/09 15:55 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/14/09 15:55 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| Acetone | ug/m3 | ND | 0.48 | 04/14/09 15:55 | |
| Benzene | ug/m3 | ND | 0.65 | 04/14/09 15:55 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/14/09 15:55 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/14/09 15:55 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/14/09 15:55 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/14/09 15:55 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/14/09 15:55 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/14/09 15:55 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/14/09 15:55 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/14/09 15:55 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/14/09 15:55 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/14/09 15:55 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/14/09 15:55 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/14/09 15:55 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/14/09 15:55 | IC |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/14/09 15:55 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/14/09 15:55 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/14/09 15:55 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/14/09 15:55 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

METHOD BLANK: 606276 Matrix: Air

Associated Lab Samples: 1092269003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/14/09 15:55 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/14/09 15:55 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/14/09 15:55 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/14/09 15:55 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/14/09 15:55 | |
| Propylene | ug/m3 | ND | 0.35 | 04/14/09 15:55 | |
| Styrene | ug/m3 | ND | 0.87 | 04/14/09 15:55 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/14/09 15:55 | |
| Toluene | ug/m3 | ND | 0.77 | 04/14/09 15:55 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/14/09 15:55 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/14/09 15:55 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/14/09 15:55 | |

LABORATORY CONTROL SAMPLE: 606277

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 59.0 | 103 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 78.7 | 110 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 56.8 | 101 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 51.9 | 68 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 31.2 | 76 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 33.7 | 83 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 82.5 | 110 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 49.3 | 100 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 88.6 | 109 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 72.6 | 116 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 42.1 | 94 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 60.3 | 119 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.1 | 107 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 19.7 | 87 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 69.1 | 108 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 69.4 | 110 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 32.5 | 105 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 40.6 | 96 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 12.2 | 51 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 47.1 | 94 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 42.5 | 100 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 14.7 | 61 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 35.1 | 107 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 67.6 | 99 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

LABORATORY CONTROL SAMPLE: 606277

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 107 | 100 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 34.2 | 86 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 31.5 | 97 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 66.1 | 102 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 54.5 | 117 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 23.6 | 89 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 50.7 | 105 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 17.8 | 85 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 45.0 | 108 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 60.4 | 125 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 25.5 | 72 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 90.8 | 100 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 48.3 | 98 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 55.2 | 78 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 7.6 | 40 | 30-150 | IC |
| Ethyl acetate | ug/m3 | 37.4 | 49.1 | 131 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 48.8 | 101 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 111 | 105 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 80.6 | 87 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 34.7 | 95 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 26.7 | 77 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 36.3 | 85 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 35.9 | 92 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 56.6 | 112 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 48.1 | 106 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 21.9 | 118 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 47.2 | 109 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 79.1 | 110 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 17.5 | 78 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 41.1 | 103 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 37.0 | 88 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 49.5 | 101 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 71.8 | 130 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 45.7 | 82 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 29.8 | 81 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 23.1 | 86 | 57-132 | |

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 1.8 | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | R1 |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 6.7 | 4.9 | 31 | 25 | R1 |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 1.9J | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 6.2 | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 4.5 | 3.2 | 34 | 25 | R1 |
| 2-Hexanone | ug/m3 | 6.9 | 4.6 | 39 | 25 | R1 |
| 2-Propanol | ug/m3 | 51.7 | 36.0 | 36 | 25 | R1 |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 25.8 | 18.6 | 32 | 25 | R1 |
| Benzene | ug/m3 | 1.3 | ND | | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.7 | 1.2 | 34 | 25 | R1 |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | ND | ND | | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 50.5 | 33.3 | 41 | 25 | 1M,R1 |
| Dichlorotetrafluoroethane | ug/m3 | 27.6 | ND | | 25 | |
| Ethanol | ug/m3 | 11.1 | 7.4 | 39 | 25 | IC,R1 |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 2.3 | 1.6 | 36 | 25 | R1 |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 3.6 | 2.6 | 33 | 25 | R1 |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 1.4 | ND | | 25 | |
| n-Hexane | ug/m3 | 2.1 | 1.4 | 36 | 25 | R1 |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 1.5 | ND | | 25 | |
| Propylene | ug/m3 | 5.8 | 3.5 | 49 | 25 | R1 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 59.2 | 41.0 | 36 | 25 | R1 |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 18.2 | 12.8 | 35 | 25 | R1 |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 10.7 | 7.2 | 39 | 25 | R1 |
| Trichlorofluoromethane | ug/m3 | 215 | 156 | 32 | 25 | R1 |
| Vinyl acetate | ug/m3 | 1.9 | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

QC Batch: AIR/8398
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092269002

METHOD BLANK: 607348
Matrix: Air
Associated Lab Samples: 1092269002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/15/09 18:07 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/15/09 18:07 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/15/09 18:07 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/15/09 18:07 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/15/09 18:07 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/15/09 18:07 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/15/09 18:07 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/15/09 18:07 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| Acetone | ug/m3 | ND | 0.48 | 04/15/09 18:07 | |
| Benzene | ug/m3 | ND | 0.65 | 04/15/09 18:07 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/15/09 18:07 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/15/09 18:07 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/15/09 18:07 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/15/09 18:07 | CL |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/15/09 18:07 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/15/09 18:07 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/15/09 18:07 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/15/09 18:07 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/15/09 18:07 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/15/09 18:07 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/15/09 18:07 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/15/09 18:07 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/15/09 18:07 | IC |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/15/09 18:07 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/15/09 18:07 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/15/09 18:07 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/15/09 18:07 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

METHOD BLANK: 607348 Matrix: Air

Associated Lab Samples: 1092269002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/15/09 18:07 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/15/09 18:07 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/15/09 18:07 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/15/09 18:07 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/15/09 18:07 | |
| Propylene | ug/m3 | ND | 0.35 | 04/15/09 18:07 | |
| Styrene | ug/m3 | ND | 0.87 | 04/15/09 18:07 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/15/09 18:07 | |
| Toluene | ug/m3 | ND | 0.77 | 04/15/09 18:07 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/15/09 18:07 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/15/09 18:07 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/15/09 18:07 | |

LABORATORY CONTROL SAMPLE: 607349

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 64.7 | 113 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 77.2 | 108 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 58.1 | 104 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 66.3 | 87 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 39.0 | 95 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 43.8 | 109 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 79.9 | 107 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 56.8 | 115 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 86.5 | 106 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 71.4 | 115 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 47.1 | 105 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 57.8 | 114 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 57.3 | 116 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 24.4 | 108 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 70.9 | 110 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 69.9 | 111 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 32.3 | 104 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 45.9 | 109 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 14.0 | 59 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 51.1 | 102 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 43.4 | 102 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 18.8 | 78 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 35.0 | 107 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 73.7 | 108 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

LABORATORY CONTROL SAMPLE: 607349

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 109 | 102 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 42.7 | 107 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 40.0 | 123 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 72.8 | 113 | 53-125 | CL |
| Chlorobenzene | ug/m3 | 46.4 | 52.0 | 112 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 28.8 | 109 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 56.2 | 116 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 22.2 | 106 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 44.3 | 107 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 61.6 | 127 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 43.7 | 122 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 91.3 | 100 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 54.6 | 111 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 67.4 | 95 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 8.5 | 45 | 30-150 | IC |
| Ethyl acetate | ug/m3 | 37.4 | 49.4 | 132 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 53.3 | 110 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 87.9 | 83 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 99.5 | 107 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 40.6 | 111 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 32.4 | 93 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 43.1 | 100 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 44.0 | 113 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 60.4 | 119 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 48.6 | 107 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 21.4 | 115 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 46.7 | 108 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 78.5 | 109 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 18.9 | 84 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.3 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 45.3 | 108 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 51.3 | 105 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.0 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 60.6 | 108 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 39.4 | 107 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 28.2 | 105 | 57-132 | |

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | 9.2 | 9.7 | 5 | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 20.0 | 19.6 | 2 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 3.5 | 4.3 | 20 | 25 | |
| 1,3-Butadiene | ug/m3 | 2.7 | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 27.9 | 26.1 | 7 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 57.1 | 58.4 | 2 | 25 | |
| 2-Hexanone | ug/m3 | 21.4 | 22.3 | 4 | 25 | |
| 2-Propanol | ug/m3 | 10.6 | 6.0 | 55 | 25 | R1 |
| 4-Ethyltoluene | ug/m3 | 4.8 | 4.5 | 5 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 1.2 | ND | | 25 | |
| Acetone | ug/m3 | 33.7 | 34.7 | 3 | 25 | |
| Benzene | ug/m3 | 5.8 | 5.8 | .2 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 2.5 | 2.6 | 5 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | CL |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 2.4 | 2.5 | 6 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | 10700 | 1090 | 163 | 25 | E |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 5.4 | 5.4 | .9 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 2.0 | 2.1 | 4 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 13.0 | 13.6 | 5 | 25 | IC |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 9.0 | 9.2 | 2 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 10.4 | 10.5 | 1 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 1.1 | 1.2 | 10 | 25 | |
| n-Heptane | ug/m3 | 8.8 | 9.0 | 2 | 25 | |
| n-Hexane | ug/m3 | 11.1 | 11.0 | 1 | 25 | |
| Naphthalene | ug/m3 | 25.2 | 17.3 | 37 | 25 | R1 |
| o-Xylene | ug/m3 | 3.9 | 3.9 | 1 | 25 | |
| Propylene | ug/m3 | 26.0 | 26.6 | 2 | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 17400 | 1230 | 174 | 25 | E |
| Tetrahydrofuran | ug/m3 | 2.7 | 2.8 | 5 | 25 | |
| Toluene | ug/m3 | 37.8 | 37.7 | .2 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | 1.4 | 1.4 | 3 | 25 | |



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**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 347 | 353 | 2 | 25 | E |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1092269001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1092269002

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1092269003

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| 1M | The internal standard recoveries associated with these results exceed the upper control limit. The reported results should be considered estimated values. |
| CH | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high. |
| CL | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| IC | The initial calibration for this compound was outside of method control limits. The result is estimated. |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092269

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092269001** | **VP-7020 Walker#3 (8')** | TO-15 | AIR/8382 | | |
| **1092269003** | **VP-6225 37th. #1(8')** | TO-15 | AIR/8390 | | |
| **1092269002** | **VP-7020 Walker#2 (10')** | TO-15 | AIR/8398 | | |



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Data File: \\192.168.10.12\chem\10air7.i\041009.b\10023.D
Report Date: 14-Apr-2009 17:15

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1092269001
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 10-APR-2009 21:44

Client SDG: 041009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 3.719 | 175 | J |
| 2. 463-49-0 | 1,2-Propadiene | 3.949 | 5.34 | NJ |
| 3. | Unknown | 4.044 | 4.37 | J |
| 4. 78-78-4 | Butane, 2-methyl- | 4.614 | 3.36 | NJ |
| 5. 109-66-0 | Pentane | 4.811 | 2.58 | NJ |
| 6. 541-05-9 | Cyclotrisiloxane, hexamethy | 10.058 | 2.85 | NJ |
| 7. | Unknown | 13.514 | 3.90 | J |
| 8. 124-18-5 | Decane | 14.256 | 1.88 | NJ |
| 9. | Unknown | 15.164 | 1.92 | J |
| 10. 1120-21-4 | Undecane | 16.164 | 1.99 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10023.D
Report Date: 14-Apr-2009 17:15

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041009.b\10023.D
Lab Smp Id: 1092269001
Inj Date : 10-APR-2009 21:44
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 8382
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041009.b\LOWTO15_100.m
Meth Date : 13-Apr-2009 13:05 ahallberg Quant Type: ISTD
Cal Date : 10-APR-2009 13:26 Cal File: 10007.D
Als bottle: 23
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

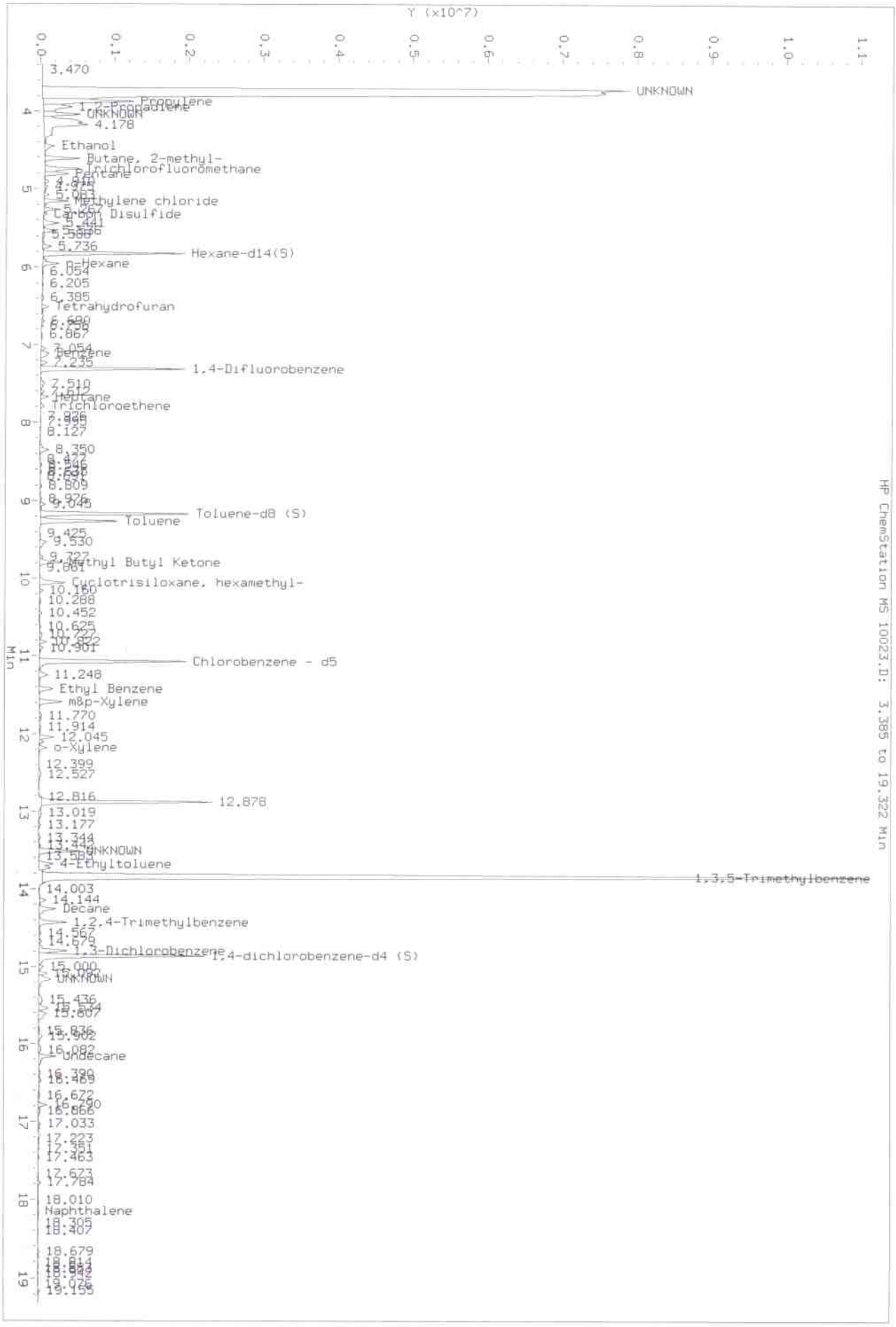
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.313 | 3654335 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.075 | 4226786 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.719 | 47781265 | 130.752255 | 175 | 0 | | 0 | 35 |
| 1,2-Propadiene | | | | CAS #: 463-49-0 | | | |
| 3.949 | 1455928 | 3.98411206 | 5.34 | 90 | NBS75K.1 | 23 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.044 | 1191673 | 3.26098468 | 4.37 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.614 | 916058 | 2.50677006 | 3.36 | 91 | NBS75K.1 | 62517 | 35 |
| Pentane | | | | CAS #: 109-66-0 | | | |
| 4.811 | 703844 | 1.92605093 | 2.58 | 86 | NBS75K.1 | 62516 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10023.D
Report Date: 14-Apr-2009 17:15

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | QUANT LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.058 | 899107 | 2.12716430 | 2.85 | 86 | NBS75K.1 | 70586 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.514 | 1229595 | 2.90905450 | 3.90 | 0 | | 0 | 50 |
| Decane | | | | CAS #: 124-18-5 | | | |
| 14.256 | 592428 | 1.40160345 | 1.88 | 91 | NBS75K.1 | 66208 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.164 | 606321 | 1.43447349 | 1.92 | 0 | | 0 | 50 |
| Undecane | | | | CAS #: 1120-21-4 | | | |
| 16.164 | 626648 | 1.48256356 | 1.99 | 91 | NBS75K.1 | 67318 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041009.b\10023.D
Injection Date: 10-APR-2009 21:44
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 10023.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10509.D
Report Date: 16-Apr-2009 16:33

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1092269002
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 15-APR-2009 20:10

Client SDG: 041509.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 3.676 | 575 | J |
| 2. | Unknown | 4.083 | 20.8 | J |
| 3. | Unknown | 4.201 | 11.9 | J |
| 4. 78-78-4 | Butane, 2-methyl- | 4.572 | 6.74 | NJ |
| 5. 540-84-1 | Pentane, 2,2,4-trimethyl- | 7.503 | 38.3 | NJ |
| 6. 20278-89-1 | Heptane, 3,4,5-trimethyl- | 8.372 | 5.56 | NJ |
| 7. 565-75-3 | Pentane, 2,3,4-trimethyl- | 8.812 | 25.4 | NJ |
| 8. 560-21-4 | Pentane, 2,3,3-trimethyl- | 8.969 | 26.4 | NJ |
| 9. 541-05-9 | Cyclotrisiloxane, hexamethy | 10.051 | 9.09 | NJ |
| 10. 111-84-2 | Nonane | 12.045 | 5.22 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10509.D
Report Date: 16-Apr-2009 16:33

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041509.b\10509.D
Lab Smp Id: 1092269002
Inj Date : 15-APR-2009 20:10
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 1
Misc Info : 8398
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041509.b\LOWTO15_103.m
Meth Date : 15-Apr-2009 17:58 ahallberg Quant Type: ISTD
Cal Date : 15-APR-2009 16:21 Cal File: 10502.D
Als bottle: 9
Dil Factor: 3.59000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.590 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

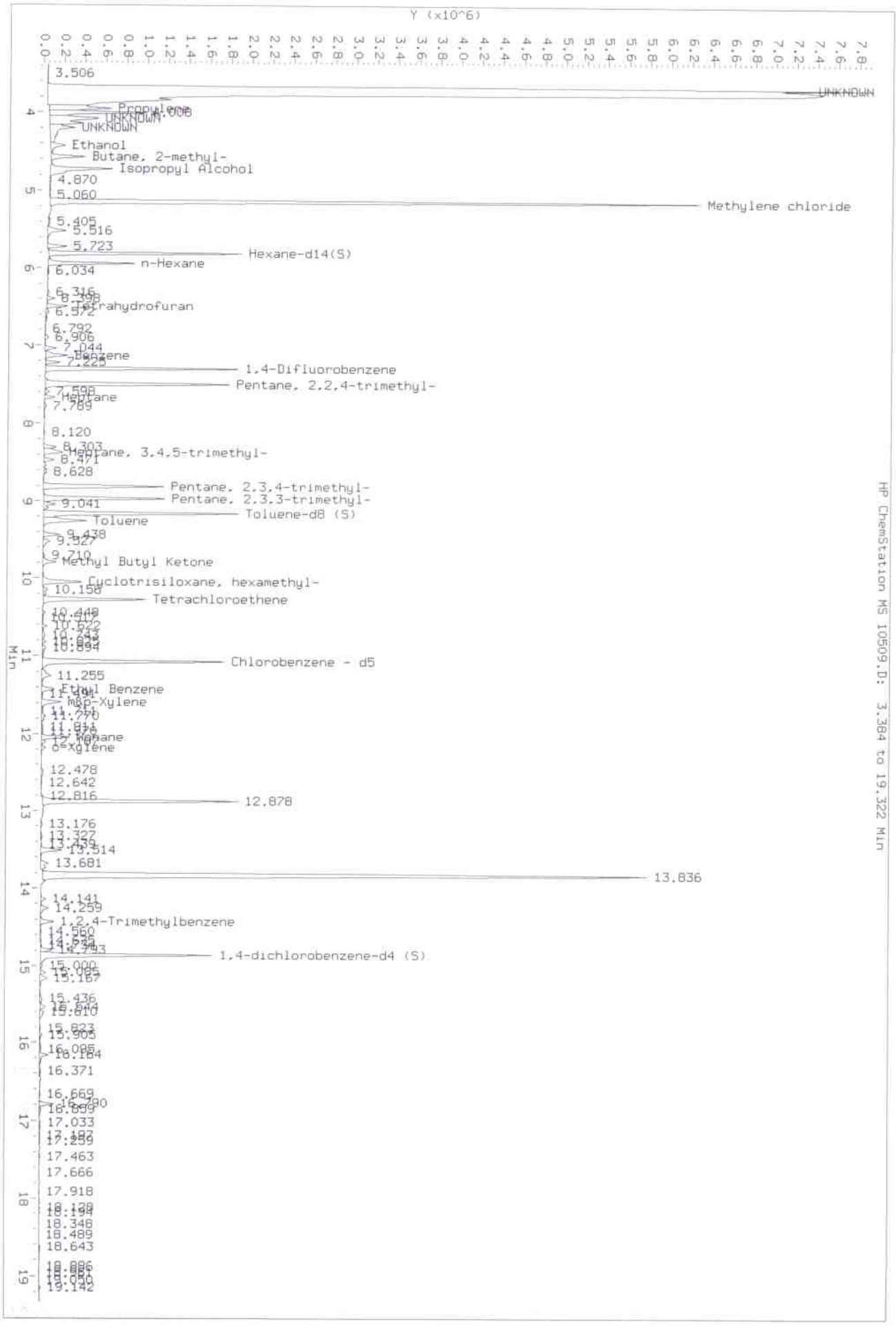
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.307 | 3507442 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 3872892 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.676 | 56174330 | 160.157511 | 575 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.083 | 2029077 | 5.78506134 | 20.8 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.201 | 1166974 | 3.32713651 | 11.9 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.572 | 658148 | 1.87643286 | 6.74 | 91 | NBS75K.1 | 62517 | 35 |
| Pentane, 2,2,4-trimethyl- | | | | CAS #: 540-84-1 | | | |
| 7.503 | 3745720 | 10.6793465 | 38.3 | 83 | NBS75K.1 | 64220 | 35 |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10509.D
Report Date: 16-Apr-2009 16:33

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Heptane, 3,4,5-trimethyl- | | | | | CAS #: 20278-89-1 | | |
| 8.372 | 542927 | 1.54792721 | 5.56 | 72 | NBS75K.1 | 8086 | 35 |
| Pentane, 2,3,4-trimethyl- | | | | | CAS #: 565-75-3 | | |
| 8.812 | 2478393 | 7.06609784 | 25.4 | 91 | NBS75K.1 | 64228 | 35 |
| Pentane, 2,3,3-trimethyl- | | | | | CAS #: 560-21-4 | | |
| 8.969 | 2581601 | 7.36034975 | 26.4 | 72 | NBS75K.1 | 3088 | 35 |
| Cyclotrisiloxane, hexamethyl- | | | | | CAS #: 541-05-9 | | |
| 10.051 | 981000 | 2.53299091 | 9.09 | 91 | NBS75K.1 | 70586 | 50 |
| Nonane | | | | | CAS #: 111-84-2 | | |
| 12.045 | 563528 | 1.45505711 | 5.22 | 97 | NBS75K.1 | 65145 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10509.D
Injection Date: 15-APR-2009 20:10
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 10509.D: 3.384 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\041409.b\10407.D
Report Date: 15-Apr-2009 16:36

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 9
Lab Smp Id: 1092269003
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 14-APR-2009 17:59

Client SDG: 041409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 3.696 | 170 | J |
| 2. | Unknown | 4.017 | 9.51 | J |
| 3. 78-78-4 | Butane, 2-methyl- | 4.585 | 11.2 | NJ |
| 4. 107-83-5 | Pentane, 2-methyl- | 5.513 | 3.81 | NJ |
| 5. 96-14-0 | Pentane, 3-methyl- | 5.716 | 2.42 | NJ |
| 6. 110-54-3 | Hexane | 5.933 | 3.93 | NJ |
| 7. 108-87-2 | Cyclohexane, methyl- | 8.343 | 3.26 | NJ |
| 8. 541-05-9 | Cyclotrisiloxane, hexamethy | 10.051 | 3.55 | NJ |
| 9. | Unknown | 13.514 | 4.69 | J |
| 10. 556-67-2 | Cyclotetrasiloxane, octamet | 13.849 | 170 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041409.b\10407.D
Report Date: 15-Apr-2009 16:36

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041409.b\10407.D
Lab Smp Id: 1092269003
Inj Date : 14-APR-2009 17:59
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 9
Misc Info : 8390
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041409.b\LOWTO15_103.m
Meth Date : 15-Apr-2009 07:17 ahallberg Quant Type: ISTD
Cal Date : 14-APR-2009 14:32 Cal File: 10401.D
Als bottle: 7
Dil Factor: 1.38000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.380 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.303 | 3609662 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 4151476 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.696 | 44609578 | 123.583808 | 170 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.017 | 2487020 | 6.88989678 | 9.51 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.585 | 2920768 | 8.09152655 | 11.2 | 91 | NBS75K.1 | 62517 | 35 |
| Pentane, 2-methyl- | | | | CAS #: 107-83-5 | | | |
| 5.513 | 997620 | 2.76374860 | 3.81 | 91 | NBS75K.1 | 62863 | 35 |
| Pentane, 3-methyl- | | | | CAS #: 96-14-0 | | | |
| 5.716 | 633212 | 1.75421362 | 2.42 | 91 | NBS75K.1 | 62868 | 35 |

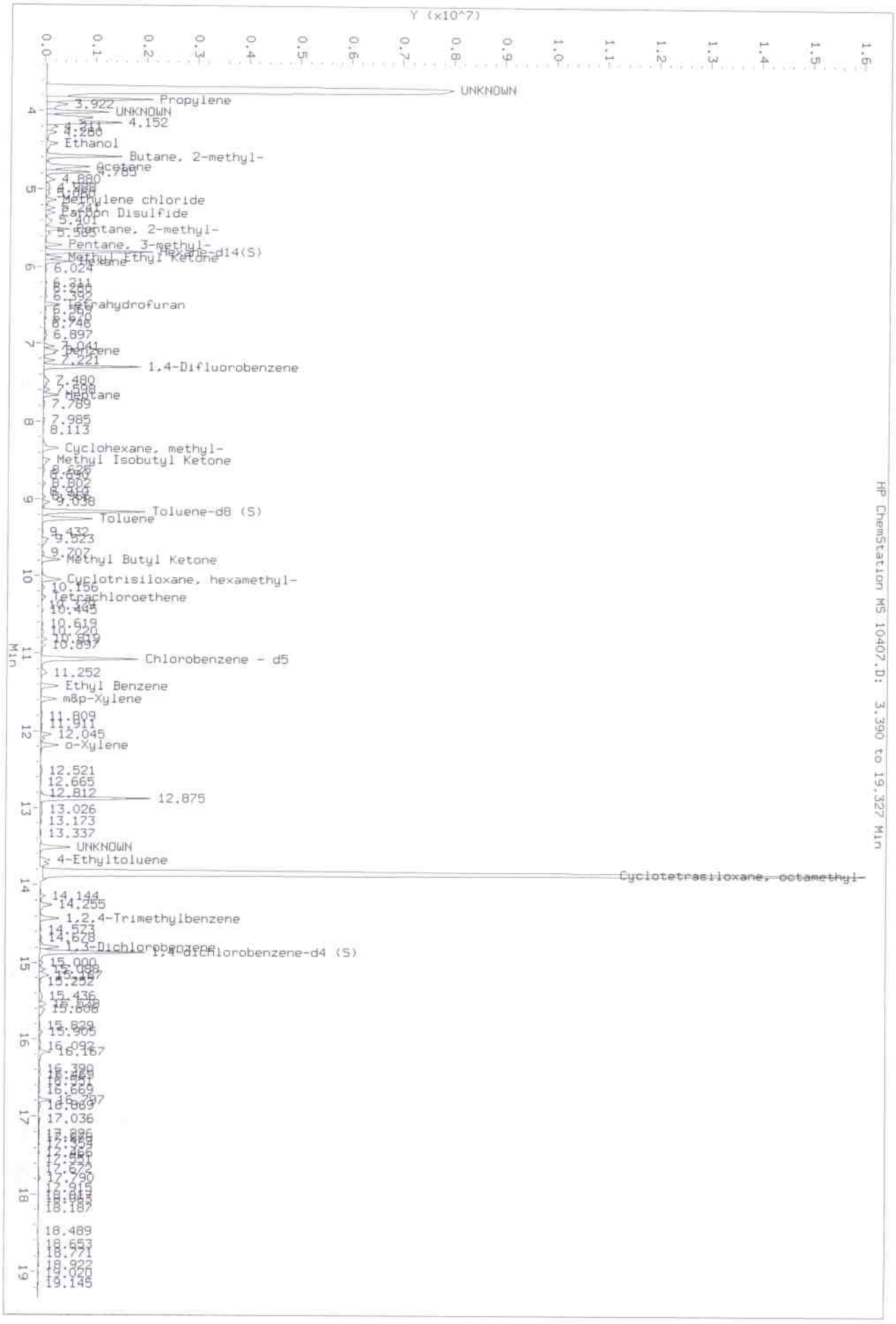
Data File: \\192.168.10.12\chem\10air7.i\041409.b\10407.D
Report Date: 15-Apr-2009 16:36

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Hexane | | | | | CAS #: 110-54-3 | | |
| 5.933 | 1028824 | 2.85019573 | 3.93 | 87 | NBS75K.1 | 736 | 35 |
| Cyclohexane, methyl- | | | | | CAS #: 108-87-2 | | |
| 8.343 | 854067 | 2.36605719 | 3.26 | 97 | NBS75K.1 | 63235 | 35 |
| Cyclotrisiloxane, hexamethyl- | | | | | CAS #: 541-05-9 | | |
| 10.051 | 1068602 | 2.57402876 | 3.55 | 91 | NBS75K.1 | 70586 | 50 |
| Unknown | | | | | CAS #: | | |
| 13.514 | 1411061 | 3.39893691 | 4.69 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | | CAS #: 556-67-2 | | |
| 13.849 | 51176727 | 123.273553 | 170 | 74 | NBS75K.1 | 72646 | 50(L) |

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: \\192.168.10.12\chem\10air7.i\041409.b\10407.D
Injection Date: 14-APR-2009 17:59
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 10407.D: 3.390 to 19.327 Min

MPCA Project

# Chain of Custody Record

№ 4325

STS | AECOM

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office: Maple
Project No.: 04660024 PO No.:
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carol Dorge
Phone No.: 612-607-6436
Results Due: Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-7020 Walker #3(8') | 4/1/09 | 1051 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | K9Z269001 |
| VP-7020 Walker #2(10') | ↓ | 1120 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | CC2 |
| VP-6225 37th #1(8') | ↓ | 1156 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | CC3 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan DeLorty | Date 4/1/09 | Time | Delivery by: B.B D - RCC25 | Date 4/2 | Time 1230 |
| Received by: [signature] | Date 4/2/09 | Time 1306 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

**Client Name:** STS/Accom **Project #** 192269

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

**Tracking #:** _____

Optional
Proj. Due Date:
Proj. Name:

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals Intact: ☐ yes ☑ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ____ No /

**Thermometer Used** 80344042, 170425 **Type of Ice:** Wet Blue (None) ☐ Samples on Ice, cooling process has begun

**Cooler Temperature** AmB **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/2/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☐Yes ☑No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☑N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: Air (Cans) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed — Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): — | | |

**Client Notification/ Resolution:**

Person Contacted: _____ Date/Time: _____ Field Data Required? Y / N

Comments/ Resolution: 3 Cans, 0 FCV's

**Project Manager Review:** DMO **Date:** 4/2/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

**Pace Analytical Services, Inc.**
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April 15, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092370001** | **B-6225 37th #2 (30')** | Solid | 04/02/09 10:00 | 04/03/09 15:10 |
| **1092370002** | **B-6225 37th #22 (30')** | Solid | 04/02/09 10:15 | 04/03/09 15:10 |
| **1092370003** | **B-6225 37th #3 (30')** | Solid | 04/02/09 11:00 | 04/03/09 15:10 |
| **1092370004** | **B-6225 Oxford #2 (17.5')** | Solid | 04/02/09 14:25 | 04/03/09 15:10 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1092370001** | **B-6225 37th #2 (30')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092370002** | **B-6225 37th #22 (30')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092370003** | **B-6225 37th #3 (30')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092370004** | **B-6225 Oxford #2 (17.5')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** April 15, 2009

**General Information:**
4 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** April 15, 2009

**General Information:**
4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4140

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #2 (30')** **Lab ID: 1092370001** Collected: 04/02/09 10:00 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **5.2** | % | 0.10 | 0.10 | 1 | | 04/07/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.4 | 6.8 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.1 | 1.7 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.1 | 0.63 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.1 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.1 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.1 | 0.36 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.1 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.1 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.1 | 1.9 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.1 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.1 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.1 | 0.34 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.1 | 0.81 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.1 | 0.21 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.1 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.1 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.1 | 0.87 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.1 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.1 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.1 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.1 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.1 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.1 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.1 | 0.34 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.1 | 0.27 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.1 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.1 | 0.81 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.1 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.1 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.1 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.1 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.1 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.1 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.1 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.1 | 0.81 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.1 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.1 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.1 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.1 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.1 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.1 | 0.27 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.1 | 0.79 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #2 (30')** **Lab ID: 1092370001** Collected: 04/02/09 10:00 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.1 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.1 | 0.63 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.1 | 0.41 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.1 | 0.86 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.1 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.1 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.1 | 0.27 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.1 | 0.12 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.1 | 0.44 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.1 | 0.76 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.1 | 0.93 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.1 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.1 | 0.86 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.1 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.1 | 0.41 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.1 | 0.79 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.1 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.1 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.1 | 0.89 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.1 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.1 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.1 | 0.15 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.1 | 0.27 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.1 | 0.89 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10.2 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.1 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 95-47-6 | |
| Dibromofluoromethane (S) | 93 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 1868-53-7 | |
| Toluene-d8 (S) | 94 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 12:49 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #22 (30')** **Lab ID: 1092370002** Collected: 04/02/09 10:15 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **4.4** | % | 0.10 | 0.10 | 1 | | 04/08/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.0 | 6.7 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.0 | 1.6 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.0 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.0 | 0.35 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.0 | 0.99 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.0 | 1.8 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.0 | 0.66 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.0 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.0 | 0.34 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.0 | 0.21 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.0 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.0 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.0 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.0 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.0 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.0 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.0 | 0.33 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.0 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.0 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.0 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.0 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.0 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.0 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.0 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.0 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.0 | 0.78 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #22 (30')** **Lab ID: 1092370002** Collected: 04/02/09 10:15 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.0 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.0 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.0 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.0 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.0 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.0 | 0.12 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.44 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.0 | 0.92 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.0 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.0 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.0 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.0 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.0 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.0 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.0 | 0.87 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.0 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.0 | 0.15 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.0 | 0.87 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.0 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:12 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #3 (30')** **Lab ID: 1092370003** Collected: 04/02/09 11:00 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.0** | % | 0.10 | 0.10 | 1 | | 04/08/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.3 | 6.1 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.6 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.6 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.6 | 0.47 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.6 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.6 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.6 | 0.90 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.6 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.6 | 1.7 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.6 | 0.60 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.6 | 0.46 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.6 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.6 | 0.19 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.6 | 1.3 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.6 | 0.49 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.6 | 0.78 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.6 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.6 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.6 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.6 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.6 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.6 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.6 | 0.23 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.6 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.6 | 0.63 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.6 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.6 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.91 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.6 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.6 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.6 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.6 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.6 | 0.96 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.6 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.6 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 37th #3 (30')** **Lab ID: 1092370003** Collected: 04/02/09 11:00 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.6 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.6 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.6 | 0.37 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.6 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.6 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.6 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.6 | 0.11 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.68 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.6 | 0.84 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.6 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.6 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.6 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.6 | 0.36 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.6 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.6 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.6 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.6 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.6 | 1.3 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.6 | 0.98 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.6 | 0.14 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.6 | 0.79 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.1 | 0.98 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.6 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 102 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:36 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 Oxford #2 (17.5')** **Lab ID: 1092370004** Collected: 04/02/09 14:25 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **1.3** | % | 0.10 | 0.10 | 1 | | 04/08/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.2 | 6.1 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.5 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.5 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.5 | 0.47 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.5 | 0.99 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.5 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.5 | 0.90 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.5 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.5 | 1.7 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.5 | 0.60 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.5 | 0.46 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.5 | 0.31 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.5 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.5 | 0.19 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.5 | 1.3 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.5 | 0.49 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.5 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.5 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.5 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.5 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.5 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.5 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.5 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.5 | 0.30 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.5 | 0.23 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.5 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.5 | 0.63 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.5 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.5 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.5 | 0.91 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.5 | 0.68 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.5 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.5 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.5 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.5 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.5 | 0.96 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.5 | 0.49 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.5 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.5 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.5 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

**Sample: B-6225 Oxford #2 (17.5')** **Lab ID: 1092370004** Collected: 04/02/09 14:25 Received: 04/03/09 15:10 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.5 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.5 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.5 | 0.37 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.5 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.5 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.5 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.5 | 0.11 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.5 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.5 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.5 | 0.83 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.5 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.5 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.5 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.5 | 0.36 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.5 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.5 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.5 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.5 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.5 | 1.3 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.5 | 0.98 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.5 | 0.14 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.5 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.5 | 0.79 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.1 | 0.97 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.5 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 95-47-6 | |
| Dibromofluoromethane (S) | 92 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 1868-53-7 | |
| Toluene-d8 (S) | 94 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 13:59 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

QC Batch: MSV/4140 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1092370001, 1092370002, 1092370003, 1092370004

METHOD BLANK: 143673 | Matrix: Solid
Associated Lab Samples: 1092370001, 1092370002, 1092370003, 1092370004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Acetone | ug/kg | ND | 20.0 | 04/08/09 11:15 | |
| Allyl chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Benzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromoform | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromomethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloroform | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dibromomethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

METHOD BLANK: 143673 Matrix: Solid

Associated Lab Samples: 1092370001, 1092370002, 1092370003, 1092370004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 04/08/09 11:15 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Naphthalene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| o-Xylene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Styrene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Toluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Trichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Bromofluorobenzene (S) | % | 100 | 42-125 | 04/08/09 11:15 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 04/08/09 11:15 | |
| Toluene-d8 (S) | % | 95 | 54-150 | 04/08/09 11:15 | |

LABORATORY CONTROL SAMPLE & LCSD: 143674 143675

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 54.3 | 52.5 | 109 | 105 | 75-127 | 3 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 46.3 | 41.7 | 93 | 83 | 65-125 | 10 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.5 | 49.2 | 105 | 98 | 75-125 | 6 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 50.8 | 49.7 | 102 | 99 | 67-131 | 2 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 55.4 | 55.6 | 111 | 111 | 75-136 | .3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 53.3 | 49.7 | 107 | 99 | 62-127 | 7 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 52.6 | 50.9 | 105 | 102 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 44.6 | 40.4 | 89 | 81 | 47-163 | 10 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 56.5 | 48.5 | 113 | 97 | 57-125 | 15 | 20 | |
| Acetone | ug/kg | 50 | 37.5 | 30.6 | 75 | 61 | 49-179 | 20 | 20 | |
| Benzene | ug/kg | 50 | 53.1 | 52.1 | 106 | 104 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 55.5 | 53.7 | 111 | 107 | 75-125 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 54.3 | 50.5 | 109 | 101 | 75-125 | 7 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

LABORATORY CONTROL SAMPLE & LCSD: 143674 143675

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 56.1 | 56.6 | 112 | 113 | 61-129 | .9 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 55.7 | 54.4 | 111 | 109 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 51.9 | 51.2 | 104 | 102 | 75-125 | 1 | 20 | |
| Chloroethane | ug/kg | 50 | 54.7 | 54.4 | 109 | 109 | 66-135 | .6 | 20 | |
| Chloroform | ug/kg | 50 | 52.2 | 52.0 | 104 | 104 | 73-125 | .4 | 20 | |
| Chloromethane | ug/kg | 50 | 47.6 | 45.6 | 95 | 91 | 46-137 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 53.2 | 51.4 | 106 | 103 | 72-125 | 3 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 55.5 | 54.0 | 111 | 108 | 61-125 | 3 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 51.1 | 48.3 | 102 | 97 | 75-125 | 6 | 20 | |
| Ethylbenzene | ug/kg | 50 | 51.0 | 50.2 | 102 | 100 | 75-126 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 106 | 106 | 106 | 106 | 75-125 | .7 | 20 | |
| Methylene Chloride | ug/kg | 50 | 52.5 | 50.8 | 105 | 102 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 51.2 | 51.3 | 102 | 103 | 75-125 | .06 | 20 | |
| Styrene | ug/kg | 50 | 47.6 | 47.5 | 95 | 95 | 75-125 | .1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 54.6 | 53.4 | 109 | 107 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 51.0 | 50.2 | 102 | 100 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 53.6 | 52.5 | 107 | 105 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 49.6 | 48.0 | 99 | 96 | 68-125 | 3 | 20 | |
| Trichloroethene | ug/kg | 50 | 58.4 | 56.8 | 117 | 114 | 75-125 | 3 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.8 | 50.9 | 104 | 102 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 99 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 90 | 90 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 95 | 95 | 54-150 | | | |



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(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

QC Batch: MPRP/15280
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092370001

SAMPLE DUPLICATE: 604262

| Parameter | Units | 1090727001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 8.4 | 8.6 | 2 | 30 | |

SAMPLE DUPLICATE: 604263

| Parameter | Units | 1092361006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 6.3 | 6.1 | 3 | 30 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

QC Batch: MPRP/15287 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092370002, 1092370003, 1092370004

SAMPLE DUPLICATE: 604542

| Parameter | Units | 1092506001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 12.4 | 12.5 | .2 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4140

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092370

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092370001** | **B-6225 37th #2 (30')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092370002** | **B-6225 37th #22 (30')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092370003** | **B-6225 37th #3 (30')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092370004** | **B-6225 Oxford #2 (17.5')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092370001** | **B-6225 37th #2 (30')** | % Moisture | MPRP/15280 | | |
| **1092370002** | **B-6225 37th #22 (30')** | % Moisture | MPRP/15287 | | |
| **1092370003** | **B-6225 37th #3 (30')** | % Moisture | MPRP/15287 | | |
| **1092370004** | **B-6225 Oxford #2 (17.5')** | % Moisture | MPRP/15287 | | |



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# Chain of Custody Record

№ 4327

STS | AECOM

109 2370

Contact Person: Peter Rzepecki
Phone No.: 763-852-4245 Office: Mpls
Project No.: 04660024 PO No.:
Project Name: St Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory: Pace
Contact Person: Carol Davy
Phone No.: 612-607-6436
Results Due: Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6225 37th #2 (30') | 4/2/09 | 1000 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-6225 37th #22 (30') | ↓ | 1015 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |
| B-6225 37th #3 (30') | ↓ | 1100 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 003 |
| B-6425 Oxford #2 (17.5) | ↓ | 1425 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 004 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 4/2/09 | Time above | Delivery by: Pace | Date | Time | |
| Received by: Pace | Date 4/3/09 | Time 1510 | Relinquished by: [illegible] | Date 4/3/09 | Time 1510 | |
| Received by: | Date | Time | Relinquished by: Pace | Date 4/3/09 | Time 1551 | |
| Received by: | Date | Time | Relinquished by: | Date | Time | |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time | |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM Project # 1092370

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other Temp Blank: Yes ✓ No

Thermometer Used 80344042, 179425 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.6 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 4/3/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☑No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☑No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☑No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:**

Person Contacted: Date/Time: Field Data Required? Y / N

Comments/ Resolution:

Project Manager Review: CMD Date: 4-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev 4/3/09 SH

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

April 15, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092372001** | **B-6528 Lake #1 (36')** | Solid | 04/03/09 10:30 | 04/03/09 15:58 |
| **1092372002** | **B-6528 Lake #2 (37')** | Solid | 04/03/09 13:40 | 04/03/09 15:58 |
| **1092372003** | **Trip Blank** | Solid | 04/03/09 00:00 | 04/03/09 15:58 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1092372001** | **B-6528 Lake #1 (36')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092372002** | **B-6528 Lake #2 (37')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1092372003** | **Trip Blank** | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** April 15, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** April 15, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4140

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: B-6528 Lake #1 (36')** **Lab ID: 1092372001** Collected: 04/03/09 10:30 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.2** | % | 0.10 | 0.10 | 1 | | 04/08/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.9 | 6.3 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.7 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.7 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.7 | 0.49 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.7 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.7 | 0.33 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.7 | 0.93 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.7 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.7 | 1.7 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.7 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.7 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.7 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.7 | 0.19 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.7 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.7 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.7 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.7 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.7 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.7 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.7 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.7 | 0.68 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.7 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.7 | 0.24 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.7 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.7 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.7 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.7 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.94 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.7 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.7 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.7 | 0.60 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.7 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.7 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.7 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.7 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.7 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.7 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: B-6528 Lake #1 (36')** **Lab ID: 1092372001** Collected: 04/03/09 10:30 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.7 | 0.66 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.7 | 0.58 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.7 | 0.38 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.7 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.7 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.7 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.7 | 0.11 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.41 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.7 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.7 | 0.86 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.7 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.7 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.7 | 0.66 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.7 | 0.38 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.7 | 0.73 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.7 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.7 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.7 | 0.83 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.7 | 1.3 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.7 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.7 | 0.14 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.7 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.7 | 0.82 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.4 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.7 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 95-47-6 | |
| Dibromofluoromethane (S) | 95 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 14:23 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: B-6528 Lake #2 (37')** **Lab ID: 1092372002** Collected: 04/03/09 13:40 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **2.4** | % | 0.10 | 0.10 | 1 | | 04/08/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.2 | 6.4 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.34 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.95 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.8 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.82 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.68 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.76 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.96 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.65 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.51 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: B-6528 Lake #2 (37')** **Lab ID: 1092372002** Collected: 04/03/09 13:40 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.39 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.88 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.84 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.83 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.6 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 1868-53-7 | |
| Toluene-d8 (S) | 94 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 101 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 14:46 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: Trip Blank** **Lab ID: 1092372003** Collected: 04/03/09 00:00 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "wet-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.0 | 6.7 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.0 | 1.6 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.0 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.0 | 0.35 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.0 | 0.99 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.0 | 1.8 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.0 | 0.66 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.0 | 0.50 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.0 | 0.34 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.0 | 0.21 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.0 | 1.5 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.0 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.0 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.0 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.0 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.0 | 0.61 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.0 | 0.72 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.0 | 0.33 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.0 | 0.69 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.0 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.0 | 0.52 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.0 | 1.0 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.0 | 0.75 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.0 | 0.67 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.0 | 0.64 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.0 | 0.80 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.0 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.54 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.53 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.0 | 0.78 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 87-68-3 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.0 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.0 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.0 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-09-2 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

**Sample: Trip Blank** **Lab ID: 1092372003** Collected: 04/03/09 00:00 Received: 04/03/09 15:58 Matrix: Solid

***Results reported on a "wet-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.0 | 0.55 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.0 | 0.62 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.0 | 0.12 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.44 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.74 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.0 | 0.92 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.0 | 1.2 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.0 | 0.85 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.0 | 0.70 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.0 | 0.40 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.0 | 0.77 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.0 | 0.71 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.0 | 0.57 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.0 | 0.87 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.0 | 1.4 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.0 | 0.15 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.0 | 0.87 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10.0 | 1.1 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.0 | 0.56 | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 95-47-6 | |
| Dibromofluoromethane (S) | 94 | % | 68-125 | | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 54-150 | | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | 42-125 | | 1 | 04/08/09 14:08 | 04/08/09 12:25 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

QC Batch: MSV/4140 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1092372001, 1092372002, 1092372003

METHOD BLANK: 143673 | Matrix: Solid
Associated Lab Samples: 1092372001, 1092372002, 1092372003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Acetone | ug/kg | ND | 20.0 | 04/08/09 11:15 | |
| Allyl chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Benzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromoform | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Bromomethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloroethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloroform | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Chloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dibromomethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

METHOD BLANK: 143673 Matrix: Solid

Associated Lab Samples: 1092372001, 1092372002, 1092372003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 04/08/09 11:15 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Naphthalene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| o-Xylene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Styrene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Toluene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Trichloroethene | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 04/08/09 11:15 | |
| 4-Bromofluorobenzene (S) | % | 100 | 42-125 | 04/08/09 11:15 | |
| Dibromofluoromethane (S) | % | 89 | 68-125 | 04/08/09 11:15 | |
| Toluene-d8 (S) | % | 95 | 54-150 | 04/08/09 11:15 | |

LABORATORY CONTROL SAMPLE & LCSD: 143674 143675

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 54.3 | 52.5 | 109 | 105 | 75-127 | 3 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 46.3 | 41.7 | 93 | 83 | 65-125 | 10 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 52.5 | 49.2 | 105 | 98 | 75-125 | 6 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 50.8 | 49.7 | 102 | 99 | 67-131 | 2 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 55.4 | 55.6 | 111 | 111 | 75-136 | .3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 53.3 | 49.7 | 107 | 99 | 62-127 | 7 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 52.6 | 50.9 | 105 | 102 | 73-125 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 44.6 | 40.4 | 89 | 81 | 47-163 | 10 | 20 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 56.5 | 48.5 | 113 | 97 | 57-125 | 15 | 20 | |
| Acetone | ug/kg | 50 | 37.5 | 30.6 | 75 | 61 | 49-179 | 20 | 20 | |
| Benzene | ug/kg | 50 | 53.1 | 52.1 | 106 | 104 | 72-127 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 55.5 | 53.7 | 111 | 107 | 75-125 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 54.3 | 50.5 | 109 | 101 | 75-125 | 7 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

LABORATORY CONTROL SAMPLE & LCSD: 143674 143675

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 56.1 | 56.6 | 112 | 113 | 61-129 | .9 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 55.7 | 54.4 | 111 | 109 | 75-139 | 2 | 20 | |
| Chlorobenzene | ug/kg | 50 | 51.9 | 51.2 | 104 | 102 | 75-125 | 1 | 20 | |
| Chloroethane | ug/kg | 50 | 54.7 | 54.4 | 109 | 109 | 66-135 | .6 | 20 | |
| Chloroform | ug/kg | 50 | 52.2 | 52.0 | 104 | 104 | 73-125 | .4 | 20 | |
| Chloromethane | ug/kg | 50 | 47.6 | 45.6 | 95 | 91 | 46-137 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 53.2 | 51.4 | 106 | 103 | 72-125 | 3 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 55.5 | 54.0 | 111 | 108 | 61-125 | 3 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 51.1 | 48.3 | 102 | 97 | 75-125 | 6 | 20 | |
| Ethylbenzene | ug/kg | 50 | 51.0 | 50.2 | 102 | 100 | 75-126 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 106 | 106 | 106 | 106 | 75-125 | .7 | 20 | |
| Methylene Chloride | ug/kg | 50 | 52.5 | 50.8 | 105 | 102 | 58-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 51.2 | 51.3 | 102 | 103 | 75-125 | .06 | 20 | |
| Styrene | ug/kg | 50 | 47.6 | 47.5 | 95 | 95 | 75-125 | .1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 54.6 | 53.4 | 109 | 107 | 75-126 | 2 | 20 | |
| Toluene | ug/kg | 50 | 51.0 | 50.2 | 102 | 100 | 75-125 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 53.6 | 52.5 | 107 | 105 | 75-129 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 49.6 | 48.0 | 99 | 96 | 68-125 | 3 | 20 | |
| Trichloroethene | ug/kg | 50 | 58.4 | 56.8 | 117 | 114 | 75-125 | 3 | 20 | |
| Vinyl chloride | ug/kg | 50 | 51.8 | 50.9 | 104 | 102 | 58-135 | 2 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 99 | 42-125 | | | |
| Dibromofluoromethane (S) | % | | | | 90 | 90 | 68-125 | | | |
| Toluene-d8 (S) | % | | | | 95 | 95 | 54-150 | | | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

QC Batch: MPRP/15287
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1092372001, 1092372002

SAMPLE DUPLICATE: 604542

| Parameter | Units | 1092506001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 12.4 | 12.5 | .2 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4140

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092372

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092372001** | **B-6528 Lake #1 (36')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092372002** | **B-6528 Lake #2 (37')** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092372003** | **Trip Blank** | EPA 8260 | MSV/4138 | EPA 8260 | MSV/4140 |
| **1092372001** | **B-6528 Lake #1 (36')** | % Moisture | MPRP/15287 | | |
| **1092372002** | **B-6528 Lake #2 (37')** | % Moisture | MPRP/15287 | | |



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MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4851 10912372

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Mpls.
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____
Laboratory Pace
Contact Person Carol Darry
Phone No. 612-607-6436
Results Due Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6528 Lake #1 (36') | 4/3/09 | 1030 | X | | 4 | Soil | 3 | 1 | | | | | low-level VOC | 001 |
| B-6528 Lake #2 (34') | 4/3/09 | 1340 | | | 4 | Soil | 3 | | | | | | low-level VOC | 002 |
| 7) Trip Blank | 4/3/09 | — | | | | Soil | 2 | 0 | | | | | low-level VOC | 003 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 4/3/09 | Time above | Delivery by: Ryan Doherty | Date 4/3/09 | Time 4:00pm |
| Received by: Pace | Date 4/4/09 | Time 1558 | Relinquished by: Pace | Date 4/3/09 | Time 1558 |
| Received by: | Date T=0.2i | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T=3.8

Pace Analytical

# Sample Condition Upon Receipt

1092372

Client Name: STS/AECOM  Project # ~~1092392~~ 4/6-09

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no  Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other  Temp Blank: Yes ✓ No

Thermometer Used 80344042, 179425  Type of Ice: Wet Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.8  Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 4/3/09 SN

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☐Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☑No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☑No ☐N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 16. 1 SZ TB |
| Trip Blank Custody Seals Present | ☑Yes ☐No ☐N/A | 1 DI Water TB 081808-3 |
| Pace Trip Blank Lot # (if purchased): 111008-3 | | |

**Client Notification/ Resolution:**

Person Contacted: _____ Date/Time: _____  Field Data Required? Y / N

Comments/ Resolution: _____

Project Manager Review: CND  Date: 4-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev 4/3/09 SN

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
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(612)607-1700

April 17, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092380001** | **VP-6528 Lake #1 (8')** | Air | 04/03/09 12:09 | 04/03/09 15:58 |
| **1092380002** | **VP-6528 Lake #2 (8')** | Air | 04/03/09 15:17 | 04/03/09 15:58 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1092380001** | **VP-6528 Lake #1 (8')** | TO-15 | AH | 60 |
| **1092380002** | **VP-6528 Lake #2 (8')** | TO-15 | AH | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

**General Information:**
2 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8398

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 607348)
  - Ethanol
- DUP (Lab ID: 607614)
  - Ethanol
- LCS (Lab ID: 607349)
  - Ethanol
- VP-6528 Lake #1 (8') (Lab ID: 1092380001)
  - Ethanol
- VP-6528 Lake #2 (8') (Lab ID: 1092380002)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8398

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 607348)
  - Carbon tetrachloride
- DUP (Lab ID: 607614)
  - Carbon tetrachloride
- LCS (Lab ID: 607349)
  - Carbon tetrachloride
- VP-6528 Lake #1 (8') (Lab ID: 1092380001)
  - Carbon tetrachloride
- VP-6528 Lake #2 (8') (Lab ID: 1092380002)
  - Carbon tetrachloride

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 17, 2009

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8398

R1: RPD value was outside control limits.
- DUP (Lab ID: 607614)
  - 2-Propanol
  - Naphthalene

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- VP-6528 Lake #1 (8') (Lab ID: 1092380001)

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).
- VP-6528 Lake #2 (8') (Lab ID: 1092380002)

Analyte Comments:

QC Batch: AIR/8398

A3: The sample was analyzed by serial dilution.
- VP-6528 Lake #2 (8') (Lab ID: 1092380002)
  - cis-1,2-Dichloroethene
  - Tetrachloroethene

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- DUP (Lab ID: 607614)
  - cis-1,2-Dichloroethene
  - Tetrachloroethene
  - Trichloroethene

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Sample: VP-6528 Lake #1 (8')** **Lab ID: 1092380001** Collected: 04/03/09 12:09 Received: 04/03/09 15:58 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **45.5** | ug/m3 | 0.90 | 0.45 | 1.88 | | 04/16/09 01:15 | 67-64-1 | |
| Benzene | **7.9** | ug/m3 | 1.2 | 0.61 | 1.88 | | 04/16/09 01:15 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 2.6 | 1.3 | 1.88 | | 04/16/09 01:15 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 3.9 | 2.0 | 1.88 | | 04/16/09 01:15 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.5 | 0.74 | 1.88 | | 04/16/09 01:15 | 74-83-9 | |
| 1,3-Butadiene | **3.7** | ug/m3 | 0.85 | 0.42 | 1.88 | | 04/16/09 01:15 | 106-99-0 | |
| 2-Butanone (MEK) | **12.5** | ug/m3 | 1.1 | 0.56 | 1.88 | | 04/16/09 01:15 | 78-93-3 | |
| Carbon disulfide | **5.4** | ug/m3 | 1.2 | 0.59 | 1.88 | | 04/16/09 01:15 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 2.4 | 1.2 | 1.88 | | 04/16/09 01:15 | 56-23-5 | CL |
| Chlorobenzene | ND | ug/m3 | 1.8 | 0.88 | 1.88 | | 04/16/09 01:15 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 1.0 | 0.51 | 1.88 | | 04/16/09 01:15 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.9 | 0.93 | 1.88 | | 04/16/09 01:15 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.79 | 0.39 | 1.88 | | 04/16/09 01:15 | 74-87-3 | |
| Cyclohexane | **6.6** | ug/m3 | 1.3 | 0.64 | 1.88 | | 04/16/09 01:15 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 3.2 | 1.6 | 1.88 | | 04/16/09 01:15 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 3.0 | 1.5 | 1.88 | | 04/16/09 01:15 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 2.3 | 1.1 | 1.88 | | 04/16/09 01:15 | 95-50-1 | |
| 1,3-Dichlorobenzene | **26.0** | ug/m3 | 2.3 | 1.1 | 1.88 | | 04/16/09 01:15 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 2.3 | 1.1 | 1.88 | | 04/16/09 01:15 | 106-46-7 | |
| Dichlorodifluoromethane | **2.3** | ug/m3 | 1.9 | 0.94 | 1.88 | | 04/16/09 01:15 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.5 | 0.77 | 1.88 | | 04/16/09 01:15 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.5 | 0.77 | 1.88 | | 04/16/09 01:15 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.5 | 0.76 | 1.88 | | 04/16/09 01:15 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.5 | 0.76 | 1.88 | | 04/16/09 01:15 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.5 | 0.76 | 1.88 | | 04/16/09 01:15 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.8 | 0.88 | 1.88 | | 04/16/09 01:15 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.7 | 0.86 | 1.88 | | 04/16/09 01:15 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.7 | 0.86 | 1.88 | | 04/16/09 01:15 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 2.6 | 1.3 | 1.88 | | 04/16/09 01:15 | 76-14-2 | |
| Ethanol | **6.7** | ug/m3 | 3.6 | 1.6 | 1.88 | | 04/16/09 01:15 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 1.4 | 0.69 | 1.88 | | 04/16/09 01:15 | 141-78-6 | |
| Ethylbenzene | **10.4** | ug/m3 | 1.7 | 0.83 | 1.88 | | 04/16/09 01:15 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 4.7 | 2.4 | 1.88 | | 04/16/09 01:15 | 622-96-8 | |
| n-Heptane | **10.2** | ug/m3 | 1.6 | 0.78 | 1.88 | | 04/16/09 01:15 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 4.1 | 2.1 | 1.88 | | 04/16/09 01:15 | 87-68-3 | |
| n-Hexane | **15.7** | ug/m3 | 1.4 | 0.68 | 1.88 | | 04/16/09 01:15 | 110-54-3 | |
| 2-Hexanone | **24.6** | ug/m3 | 1.6 | 0.78 | 1.88 | | 04/16/09 01:15 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 1.3 | 0.67 | 1.88 | | 04/16/09 01:15 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.6 | 0.78 | 1.88 | | 04/16/09 01:15 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.4 | 0.69 | 1.88 | | 04/16/09 01:15 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 5.1 | 2.5 | 1.88 | | 04/16/09 01:15 | 91-20-3 | |
| 2-Propanol | **12.4** | ug/m3 | 4.7 | 2.4 | 1.88 | | 04/16/09 01:15 | 67-63-0 | |
| Propylene | **38.8** | ug/m3 | 0.66 | 0.33 | 1.88 | | 04/16/09 01:15 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.6 | 0.82 | 1.88 | | 04/16/09 01:15 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 2.6 | 1.3 | 1.88 | | 04/16/09 01:15 | 79-34-5 | |
| Tetrachloroethene | **513** | ug/m3 | 26.3 | 13.2 | 18.8 | | 04/16/09 14:23 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Sample: VP-6528 Lake #1 (8')** **Lab ID: 1092380001** Collected: 04/03/09 12:09 Received: 04/03/09 15:58 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **2.9** | ug/m3 | 1.1 | 0.56 | 1.88 | | 04/16/09 01:15 | 109-99-9 | |
| Toluene | **46.2** | ug/m3 | 1.4 | 0.72 | 1.88 | | 04/16/09 01:15 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.9 | 0.93 | 1.88 | | 04/16/09 01:15 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 2.1 | 1.0 | 1.88 | | 04/16/09 01:15 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 2.1 | 1.0 | 1.88 | | 04/16/09 01:15 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 2.1 | 1.0 | 1.88 | | 04/16/09 01:15 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 2.1 | 1.0 | 1.88 | | 04/16/09 01:15 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 3.0 | 1.5 | 1.88 | | 04/16/09 01:15 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **19.3** | ug/m3 | 4.7 | 2.4 | 1.88 | | 04/16/09 01:15 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 4.7 | 2.4 | 1.88 | | 04/16/09 01:15 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 1.3 | 0.67 | 1.88 | | 04/16/09 01:15 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.98 | 0.49 | 1.88 | | 04/16/09 01:15 | 75-01-4 | |
| m&p-Xylene | **9.9** | ug/m3 | 3.3 | 1.7 | 1.88 | | 04/16/09 01:15 | 1330-20-7 | |
| o-Xylene | **3.8** | ug/m3 | 1.7 | 0.83 | 1.88 | | 04/16/09 01:15 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Sample: VP-6528 Lake #2 (8')** **Lab ID: 1092380002** Collected: 04/03/09 15:17 Received: 04/03/09 15:58 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **33.7** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/16/09 01:47 | 67-64-1 | |
| Benzene | **5.8** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/16/09 01:47 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/16/09 01:47 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/16/09 01:47 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/16/09 01:47 | 74-83-9 | |
| 1,3-Butadiene | **2.7** | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/16/09 01:47 | 106-99-0 | |
| 2-Butanone (MEK) | **57.1** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/16/09 01:47 | 78-93-3 | |
| Carbon disulfide | **2.5** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/16/09 01:47 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/16/09 01:47 | 56-23-5 | CL |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/16/09 01:47 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/16/09 01:47 | 75-00-3 | |
| Chloroform | **2.4** | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/16/09 01:47 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/16/09 01:47 | 74-87-3 | |
| Cyclohexane | **5.4** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/16/09 01:47 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/16/09 01:47 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/16/09 01:47 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/16/09 01:47 | 95-50-1 | |
| 1,3-Dichlorobenzene | **27.9** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/16/09 01:47 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/16/09 01:47 | 106-46-7 | |
| Dichlorodifluoromethane | **2.0** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/16/09 01:47 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/16/09 01:47 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/16/09 01:47 | 107-06-2 | |
| 1,1-Dichloroethene | **9.2** | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/16/09 01:47 | 75-35-4 | |
| cis-1,2-Dichloroethene | **10700** | ug/m3 | 1390 | 695 | 1715.2 | | 04/16/09 15:59 | 156-59-2 | A3 |
| trans-1,2-Dichloroethene | **1.4** | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/16/09 01:47 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/16/09 01:47 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/16/09 01:47 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/16/09 01:47 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/16/09 01:47 | 76-14-2 | |
| Ethanol | **13.0** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/16/09 01:47 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/16/09 01:47 | 141-78-6 | |
| Ethylbenzene | **9.0** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/16/09 01:47 | 100-41-4 | |
| 4-Ethyltoluene | **4.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/16/09 01:47 | 622-96-8 | |
| n-Heptane | **8.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/16/09 01:47 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/16/09 01:47 | 87-68-3 | |
| n-Hexane | **11.1** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/16/09 01:47 | 110-54-3 | |
| 2-Hexanone | **21.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/16/09 01:47 | 591-78-6 | |
| Methylene Chloride | **1.1** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/16/09 01:47 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | **1.2** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/16/09 01:47 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/16/09 01:47 | 1634-04-4 | |
| Naphthalene | **25.2** | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/16/09 01:47 | 91-20-3 | |
| 2-Propanol | **10.6** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/16/09 01:47 | 67-63-0 | |
| Propylene | **26.0** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/16/09 01:47 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/16/09 01:47 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/16/09 01:47 | 79-34-5 | |
| Tetrachloroethene | **17400** | ug/m3 | 2400 | 1200 | 1715.2 | | 04/16/09 15:59 | 127-18-4 | A3 |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

**Sample: VP-6528 Lake #2 (8')** **Lab ID: 1092380002** Collected: 04/03/09 15:17 Received: 04/03/09 15:58 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **2.7** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/16/09 01:47 | 109-99-9 | |
| Toluene | **37.8** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/16/09 01:47 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/16/09 01:47 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/16/09 01:47 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/16/09 01:47 | 79-00-5 | |
| Trichloroethene | **347** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/16/09 01:47 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/16/09 01:47 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/16/09 01:47 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **20.0** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/16/09 01:47 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **3.5** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/16/09 01:47 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/16/09 01:47 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/16/09 01:47 | 75-01-4 | |
| m&p-Xylene | **10.4** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/16/09 01:47 | 1330-20-7 | |
| o-Xylene | **3.9** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/16/09 01:47 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

QC Batch: AIR/8398 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092380001, 1092380002

METHOD BLANK: 607348 | Matrix: Air
Associated Lab Samples: 1092380001, 1092380002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/15/09 18:07 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/15/09 18:07 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/15/09 18:07 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/15/09 18:07 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/15/09 18:07 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/15/09 18:07 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/15/09 18:07 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/15/09 18:07 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/15/09 18:07 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/15/09 18:07 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| Acetone | ug/m3 | ND | 0.48 | 04/15/09 18:07 | |
| Benzene | ug/m3 | ND | 0.65 | 04/15/09 18:07 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/15/09 18:07 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/15/09 18:07 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/15/09 18:07 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/15/09 18:07 | CL |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/15/09 18:07 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/15/09 18:07 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/15/09 18:07 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/15/09 18:07 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/15/09 18:07 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/15/09 18:07 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/15/09 18:07 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/15/09 18:07 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/15/09 18:07 | IC |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/15/09 18:07 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/15/09 18:07 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/15/09 18:07 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/15/09 18:07 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

METHOD BLANK: 607348 Matrix: Air

Associated Lab Samples: 1092380001, 1092380002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/15/09 18:07 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/15/09 18:07 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/15/09 18:07 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/15/09 18:07 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/15/09 18:07 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/15/09 18:07 | |
| Propylene | ug/m3 | ND | 0.35 | 04/15/09 18:07 | |
| Styrene | ug/m3 | ND | 0.87 | 04/15/09 18:07 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/15/09 18:07 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/15/09 18:07 | |
| Toluene | ug/m3 | ND | 0.77 | 04/15/09 18:07 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/15/09 18:07 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/15/09 18:07 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/15/09 18:07 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/15/09 18:07 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/15/09 18:07 | |

LABORATORY CONTROL SAMPLE: 607349

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 64.7 | 113 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 77.2 | 108 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 58.1 | 104 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 66.3 | 87 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 39.0 | 95 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 43.8 | 109 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 79.9 | 107 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 56.8 | 115 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 86.5 | 106 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 71.4 | 115 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 47.1 | 105 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 57.8 | 114 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 57.3 | 116 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 24.4 | 108 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 70.9 | 110 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 69.9 | 111 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 32.3 | 104 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 45.9 | 109 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 14.0 | 59 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 51.1 | 102 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 43.4 | 102 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 18.8 | 78 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 35.0 | 107 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 73.7 | 108 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

LABORATORY CONTROL SAMPLE: 607349

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 109 | 102 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 42.7 | 107 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 40.0 | 123 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 72.8 | 113 | 53-125 | CL |
| Chlorobenzene | ug/m3 | 46.4 | 52.0 | 112 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 28.8 | 109 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 56.2 | 116 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 22.2 | 106 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 44.3 | 107 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 61.6 | 127 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 43.7 | 122 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 91.3 | 100 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 54.6 | 111 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 67.4 | 95 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 8.5 | 45 | 30-150 | IC |
| Ethyl acetate | ug/m3 | 37.4 | 49.4 | 132 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 53.3 | 110 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 87.9 | 83 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 99.5 | 107 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 40.6 | 111 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 32.4 | 93 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 43.1 | 100 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 44.0 | 113 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 60.4 | 119 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 48.6 | 107 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 21.4 | 115 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 46.7 | 108 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 78.5 | 109 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 18.9 | 84 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.3 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 45.3 | 108 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 51.3 | 105 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.0 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 60.6 | 108 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 39.4 | 107 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 28.2 | 105 | 57-132 | |

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | 9.2 | 9.7 | 5 | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 20.0 | 19.6 | 2 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 3.5 | 4.3 | 20 | 25 | |
| 1,3-Butadiene | ug/m3 | 2.7 | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 27.9 | 26.1 | 7 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 57.1 | 58.4 | 2 | 25 | |
| 2-Hexanone | ug/m3 | 21.4 | 22.3 | 4 | 25 | |
| 2-Propanol | ug/m3 | 10.6 | 6.0 | 55 | 25 | R1 |
| 4-Ethyltoluene | ug/m3 | 4.8 | 4.5 | 5 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 1.2 | ND | | 25 | |
| Acetone | ug/m3 | 33.7 | 34.7 | 3 | 25 | |
| Benzene | ug/m3 | 5.8 | 5.8 | .2 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 2.5 | 2.6 | 5 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | CL |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 2.4 | 2.5 | 6 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | 10700 | 1090 | 163 | 25 | E |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 5.4 | 5.4 | .9 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 2.0 | 2.1 | 4 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 13.0 | 13.6 | 5 | 25 | IC |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 9.0 | 9.2 | 2 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 10.4 | 10.5 | 1 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 1.1 | 1.2 | 10 | 25 | |
| n-Heptane | ug/m3 | 8.8 | 9.0 | 2 | 25 | |
| n-Hexane | ug/m3 | 11.1 | 11.0 | 1 | 25 | |
| Naphthalene | ug/m3 | 25.2 | 17.3 | 37 | 25 | R1 |
| o-Xylene | ug/m3 | 3.9 | 3.9 | 1 | 25 | |
| Propylene | ug/m3 | 26.0 | 26.6 | 2 | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 17400 | 1230 | 174 | 25 | E |
| Tetrahydrofuran | ug/m3 | 2.7 | 2.8 | 5 | 25 | |
| Toluene | ug/m3 | 37.8 | 37.7 | .2 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | 1.4 | 1.4 | 3 | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

SAMPLE DUPLICATE: 607614

| Parameter | Units | 1092380002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 347 | 353 | 2 | 25 | E |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1092380001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1092380002

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| A3 | The sample was analyzed by serial dilution. |
| CL | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| IC | The initial calibration for this compound was outside of method control limits. The result is estimated. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park Invest.
Pace Project No.: 1092380

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092380001** | **VP-6528 Lake #1 (8')** | TO-15 | AIR/8398 | | |
| **1092380002** | **VP-6528 Lake #2 (8')** | TO-15 | AIR/8398 | | |



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Data File: \\192.168.10.12\chem\10air7.i\041509.b\10519.D
Report Date: 16-Apr-2009 16:34

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1092380001
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 16-APR-2009 01:15

Client SDG: 041509.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.709 | 242 | _J__ |
| 2. | | Unknown | 4.034 | 6.91 | _J__ |
| 3. | 78-78-4 | Butane, 2-methyl- | 4.601 | 5.78 | NJ__ |
| 4. | | Unknown | 9.573 | 3.58 | _J__ |
| 5. | 541-05-9 | Cyclotrisiloxane, hexamethy | 10.058 | 6.62 | NJ__ |
| 6. | | Unknown | 13.518 | 5.72 | _J__ |
| 7. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.852 | 179 | NJ__ |
| 8. | 124-18-5 | Decane | 14.256 | 4.92 | NJ__ |
| 9. | 1120-21-4 | Undecane | 16.167 | 3.78 | NJ__ |
| 10. | | Unknown | 16.794 | 3.65 | _J__ |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10519.D
Report Date: 16-Apr-2009 16:34

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041509.b\10519.D
Lab Smp Id: 1092380001
Inj Date : 16-APR-2009 01:15
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 1
Misc Info : 8398
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041509.b\LOWTO15_103.m
Meth Date : 15-Apr-2009 17:58 ahallberg Quant Type: ISTD
Cal Date : 15-APR-2009 16:21 Cal File: 10502.D
Als bottle: 19
Dil Factor: 1.88000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.880 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.313 | 3705327 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.075 | 4312831 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.709 | 47655127 | 128.612443 | 242 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.034 | 1361146 | 3.67348256 | 6.91 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.601 | 1139208 | 3.07451225 | 5.78 | 91 | NBS75K.1 | 62518 | 35 |
| Unknown | | | | CAS #: | | | |
| 9.573 | 821316 | 1.90435518 | 3.58 | 0 | | 0 | 50 |
| Cyclotrisiloxane, hexamethyl- | | | | CAS #: 541-05-9 | | | |
| 10.058 | 1517795 | 3.51925479 | 6.62 | 91 | NBS75K.1 | 70586 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10519.D
Report Date: 16-Apr-2009 16:34

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 13.518 | 1311380 | 3.04064681 | 5.72 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.852 | 41019514 | 95.1104057 | 179 | 87 | NBS75K.1 | 41966 | 50 |
| Decane | | | | CAS #: 124-18-5 | | | |
| 14.256 | 1128729 | 2.61714136 | 4.92 | 94 | NBS75K.1 | 66208 | 50 |
| Undecane | | | | CAS #: 1120-21-4 | | | |
| 16.167 | 866291 | 2.00863668 | 3.78 | 91 | NBS75K.1 | 67318 | 50 |
| Unknown | | | | CAS #: | | | |
| 16.794 | 837760 | 1.94248180 | 3.65 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10520.D
Report Date: 16-Apr-2009 16:35

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 2
Lab Smp Id: 1092380002
Operator : AH
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 16-APR-2009 01:47

Client SDG: 041509.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 3.686 | 41.5 | J |
| 2. | Unknown | 4.024 | 11.6 | J |
| 3. 78-78-4 | Butane, 2-methyl- | 4.588 | 4.75 | NJ |
| 4. | Unknown | 13.518 | 6.06 | J |
| 5. 556-67-2 | Cyclotetrasiloxane, octamet | 13.849 | 116 | NJ |
| 6. 611-14-3 | Benzene, 1-ethyl-2-methyl- | 14.144 | 2.16 | NJ |
| 7. 124-18-5 | Decane | 14.259 | 6.74 | NJ |
| 8. 629-94-7 | Heneicosane | 15.170 | 3.50 | NJ |
| 9. | Unknown | 15.610 | 3.37 | J |
| 10. 629-59-4 | Tetradecane | 16.164 | 4.90 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10520.D
Report Date: 16-Apr-2009 16:35

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\041509.b\10520.D
Lab Smp Id: 1092380002
Inj Date : 16-APR-2009 01:47
Operator : AH Inst ID: 10air7.i
Smp Info : Sample 2
Misc Info : 8398
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\041509.b\LOWTO15_103.m
Meth Date : 15-Apr-2009 17:58 ahallberg Quant Type: ISTD
Cal Date : 15-APR-2009 16:21 Cal File: 10502.D
Als bottle: 20
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRGROUP

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.316 | 3702242 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.074 | 4046972 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.686 | 11475673 | 30.9965482 | 41.5 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.024 | 3210813 | 8.67261833 | 11.6 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.588 | 1311342 | 3.54201994 | 4.75 | 91 | NBS75K.1 | 62518 | 35 |
| Unknown | | | | CAS #: | | | |
| 13.518 | 1828730 | 4.51875927 | 6.06 | 0 | | 0 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 13.849 | 34922930 | 86.2939585 | 116 | 86 | NBS75K.1 | 41966 | 50 |

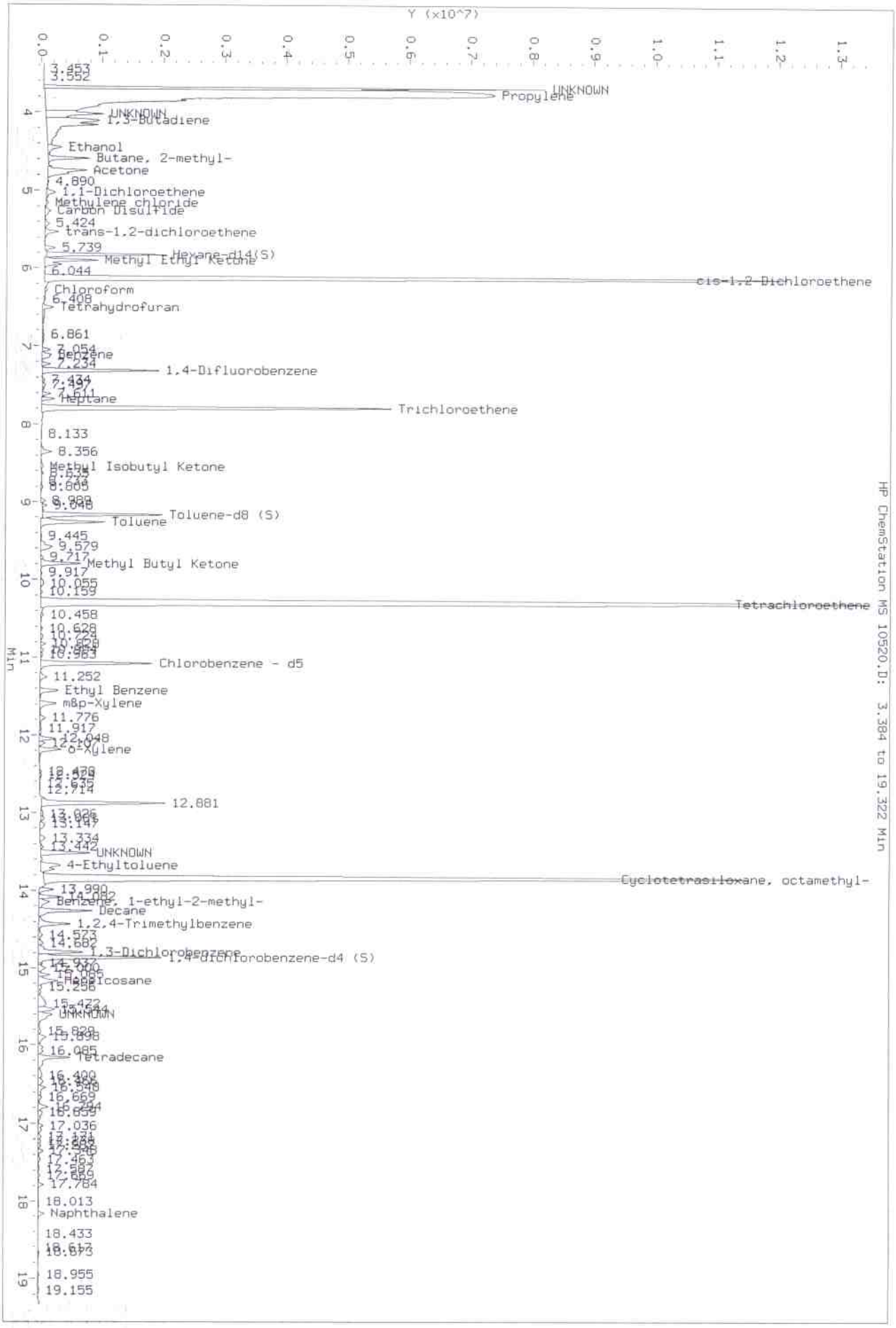
Data File: \\192.168.10.12\chem\10air7.i\041509.b\10519.D
Injection Date: 16-APR-2009 01:15
Instrument: 10air7.i
Client Sample ID:

HP ChemStation MS 10519.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10520.D
Report Date: 16-Apr-2009 16:35

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Benzene, 1-ethyl-2-methyl- | | | | CAS #: 611-14-3 | | | |
| 14.144 | 650887 | 1.60833159 | 2.16 | 93 | NBS75K.1 | 64560 | 50 |
| Decane | | | | CAS #: 124-18-5 | | | |
| 14.259 | 2035211 | 5.02897182 | 6.74 | 91 | NBS75K.1 | 66208 | 50 |
| Heneicosane | | | | CAS #: 629-94-7 | | | |
| 15.170 | 1057692 | 2.61353812 | 3.50 | 72 | NBS75K.1 | 42201 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 1017231 | 2.51356111 | 3.37 | 0 | | 0 | 50 |
| Tetradecane | | | | CAS #: 629-59-4 | | | |
| 16.164 | 1479719 | 3.65636131 | 4.90 | 90 | NBS75K.1 | 69661 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\041509.b\10520.D
Injection Date: 16-APR-2009 01:47
Instrument: 10air7.i
Client Sample ID:



MPCA Project

STS | AECOM

# Chain of Custody Record

№ 4329

1092380

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office: Mpls
Project No. 07660024 PO No.
Project Name: St Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____

Laboratory: Pace
Contact Person: Carol Dary
Phone No. 612-607-6436
Results Due: Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6528 Lake#1(8') | 4/3/09 | 1509 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | 001 |
| VP-6528 Lake#2(8') | ↓ | 1517 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | 002 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date 4/3/09 | Time | Delivery by: Ryan Doherty | Date 4/3/09 | Time 4:00 pm |
| Received by: [signature] Pace | Date 4/4/09 | Time 1558 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: PACE | Date 4/3/09 | Time 1558 | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: AECOM

Project # 1092380

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other Temp Blank: Yes No

Thermometer Used ~~80344042, 179425~~ Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature AMB Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/3/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☒N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AIR (summa) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, Wi-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:**

Person Contacted: Date/Time: Field Data Required? Y / N

Comments/ Resolution: 2 CIANS

Project Manager Review: CMD 4/4/09 Date: 4-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 16, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Minnesota Certification IDs**

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1092382001** | **VP-6425 Oxford#2 (8')** | Air | 04/02/09 14:43 | 04/03/09 15:10 |
| **1092382002** | **VP-6425 Oxford#1 (8')** | Air | 04/02/09 15:20 | 04/03/09 15:10 |
| **1092382003** | **VP-6425 Oxford#11 (8')** | Air | 04/02/09 15:25 | 04/03/09 15:10 |
| **1092382004** | **VP-6425 Oxford#3 (8')** | Air | 04/02/09 16:03 | 04/03/09 15:10 |
| **1092382005** | **VP-6225 37th.#2 (8')** | Air | 04/02/09 16:23 | 04/03/09 15:10 |
| **1092382006** | **VP-6225 37th.#3 (8')** | Air | 04/02/09 16:49 | 04/03/09 15:10 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1092382001** | **VP-6425 Oxford#2 (8')** | TO-15 | AH | 60 |
| **1092382002** | **VP-6425 Oxford#1 (8')** | TO-15 | AH | 60 |
| **1092382003** | **VP-6425 Oxford#11 (8')** | TO-15 | AH | 60 |
| **1092382004** | **VP-6425 Oxford#3 (8')** | TO-15 | AH | 60 |
| **1092382005** | **VP-6225 37th.#2 (8')** | TO-15 | AH | 60 |
| **1092382006** | **VP-6225 37th.#3 (8')** | TO-15 | AH | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 16, 2009

**General Information:**
6 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8390

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 606276)
  - Ethanol
- DUP (Lab ID: 607266)
  - Ethanol
- LCS (Lab ID: 606277)
  - Ethanol
- VP-6225 37th.#2 (8') (Lab ID: 1092382005)
  - Ethanol
- VP-6225 37th.#3 (8') (Lab ID: 1092382006)
  - Ethanol
- VP-6425 Oxford#1 (8') (Lab ID: 1092382002)
  - Ethanol
- VP-6425 Oxford#11 (8') (Lab ID: 1092382003)
  - Ethanol
- VP-6425 Oxford#2 (8') (Lab ID: 1092382001)
  - Ethanol
- VP-6425 Oxford#3 (8') (Lab ID: 1092382004)
  - Ethanol

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 16, 2009

QC Batch: AIR/8390

R1: RPD value was outside control limits.

- DUP (Lab ID: 607266)
  - 1,2,4-Trichlorobenzene
  - 1,2,4-Trimethylbenzene
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 2-Propanol
  - Acetone
  - Carbon disulfide
  - Dichlorodifluoromethane
  - Ethanol
  - Ethylbenzene
  - Propylene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Trichlorofluoromethane
  - m&p-Xylene
  - n-Hexane

**Additional Comments:**

Sample Comments:

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).
- VP-6425 Oxford#2 (8') (Lab ID: 1092382001)
- VP-6425 Oxford#1 (8') (Lab ID: 1092382002)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).
- VP-6425 Oxford#11 (8') (Lab ID: 1092382003)

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- VP-6425 Oxford#3 (8') (Lab ID: 1092382004)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).
- VP-6225 37th.#2 (8') (Lab ID: 1092382005)
- VP-6225 37th.#3 (8') (Lab ID: 1092382006)

Analyte Comments:

QC Batch: AIR/8390

1M: The internal standard recoveries associated with these results exceed the upper control limit. The reported results should be considered estimated values.
- DUP (Lab ID: 607266)
  - Dichlorodifluoromethane

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- VP-6225 37th.#2 (8') (Lab ID: 1092382005)
  - 2-Propanol



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# PROJECT NARRATIVE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** April 16, 2009

Analyte Comments:

QC Batch: AIR/8390

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- VP-6425 Oxford#1 (8') (Lab ID: 1092382002)
  - 2-Propanol
- VP-6425 Oxford#11 (8') (Lab ID: 1092382003)
  - 2-Propanol
  - Trichlorofluoromethane
- VP-6425 Oxford#2 (8') (Lab ID: 1092382001)
  - 2-Propanol
- VP-6425 Oxford#3 (8') (Lab ID: 1092382004)
  - 2-Propanol

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#2 (8')** **Lab ID: 1092382001** Collected: 04/02/09 14:43 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **25.8** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/14/09 22:13 | 67-64-1 | |
| Benzene | **1.3** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/14/09 22:13 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:13 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/14/09 22:13 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/14/09 22:13 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/14/09 22:13 | 106-99-0 | |
| 2-Butanone (MEK) | **4.5** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 22:13 | 78-93-3 | |
| Carbon disulfide | **1.7** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/14/09 22:13 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/14/09 22:13 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 22:13 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/14/09 22:13 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 22:13 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/14/09 22:13 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/14/09 22:13 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/14/09 22:13 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 22:13 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:13 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:13 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:13 | 106-46-7 | |
| Dichlorodifluoromethane | **50.5** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/14/09 22:13 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 22:13 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 22:13 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:13 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:13 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:13 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 22:13 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 22:13 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 22:13 | 10061-02-6 | |
| Dichlorotetrafluoroethane | **27.6** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:13 | 76-14-2 | |
| Ethanol | **11.1** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/14/09 22:13 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 22:13 | 141-78-6 | |
| Ethylbenzene | **2.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 22:13 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:13 | 622-96-8 | |
| n-Heptane | **1.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:13 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/14/09 22:13 | 87-68-3 | |
| n-Hexane | **2.1** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/14/09 22:13 | 110-54-3 | |
| 2-Hexanone | **6.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:13 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 22:13 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:13 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 22:13 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/14/09 22:13 | 91-20-3 | |
| 2-Propanol | **51.7** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:13 | 67-63-0 | E |
| Propylene | **5.8** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/14/09 22:13 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/14/09 22:13 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:13 | 79-34-5 | |
| Tetrachloroethene | **59.2** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:13 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#2 (8')** **Lab ID: 1092382001** Collected: 04/02/09 14:43 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 22:13 | 109-99-9 | |
| Toluene | **18.2** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/14/09 22:13 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 22:13 | 120-82-1 | |
| 1,1,1-Trichloroethane | **1.8** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:13 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:13 | 79-00-5 | |
| Trichloroethene | **10.7** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:13 | 79-01-6 | |
| Trichlorofluoromethane | **215** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:13 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 22:13 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **6.7** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:13 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:13 | 108-67-8 | |
| Vinyl acetate | **1.9** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 22:13 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/14/09 22:13 | 75-01-4 | |
| m&p-Xylene | **3.6** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/14/09 22:13 | 1330-20-7 | |
| o-Xylene | **1.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 22:13 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#1 (8')** **Lab ID: 1092382002** Collected: 04/02/09 15:20 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **93.8** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/14/09 22:43 | 67-64-1 | |
| Benzene | **1.4** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/14/09 22:43 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:43 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/14/09 22:43 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/14/09 22:43 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/14/09 22:43 | 106-99-0 | |
| 2-Butanone (MEK) | **7.2** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 22:43 | 78-93-3 | |
| Carbon disulfide | **2.0** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/14/09 22:43 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/14/09 22:43 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 22:43 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/14/09 22:43 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 22:43 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/14/09 22:43 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/14/09 22:43 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/14/09 22:43 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 22:43 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:43 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:43 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 22:43 | 106-46-7 | |
| Dichlorodifluoromethane | **83.1** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/14/09 22:43 | 75-71-8 | |
| 1,1-Dichloroethane | **1.4** | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 22:43 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 22:43 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:43 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:43 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 22:43 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 22:43 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 22:43 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 22:43 | 10061-02-6 | |
| Dichlorotetrafluoroethane | **10.2** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:43 | 76-14-2 | |
| Ethanol | **8.5** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/14/09 22:43 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 22:43 | 141-78-6 | |
| Ethylbenzene | **2.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 22:43 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:43 | 622-96-8 | |
| n-Heptane | **1.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:43 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/14/09 22:43 | 87-68-3 | |
| n-Hexane | **2.8** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/14/09 22:43 | 110-54-3 | |
| 2-Hexanone | **7.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:43 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 22:43 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | **2.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 22:43 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 22:43 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/14/09 22:43 | 91-20-3 | |
| 2-Propanol | **434** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:43 | 67-63-0 | E |
| Propylene | **8.1** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/14/09 22:43 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/14/09 22:43 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:43 | 79-34-5 | |
| Tetrachloroethene | **12.7** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 22:43 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#1 (8')** **Lab ID: 1092382002** Collected: 04/02/09 15:20 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **1.3** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 22:43 | 109-99-9 | |
| Toluene | **14.8** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/14/09 22:43 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 22:43 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:43 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:43 | 79-00-5 | |
| Trichloroethene | **7.1** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:43 | 79-01-6 | |
| Trichlorofluoromethane | **212** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 22:43 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 22:43 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:43 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 22:43 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 22:43 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/14/09 22:43 | 75-01-4 | |
| m&p-Xylene | **2.4** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/14/09 22:43 | 1330-20-7 | |
| o-Xylene | ND | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 22:43 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#11 (8')** **Lab ID: 1092382003** Collected: 04/02/09 15:25 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **85.1** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/15/09 11:37 | 67-64-1 | |
| Benzene | **0.99** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/15/09 11:37 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 11:37 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/15/09 11:37 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/15/09 11:37 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/15/09 11:37 | 106-99-0 | |
| 2-Butanone (MEK) | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 11:37 | 78-93-3 | |
| Carbon disulfide | **1.3** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/15/09 11:37 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/15/09 11:37 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 11:37 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/15/09 11:37 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 11:37 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/15/09 11:37 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/15/09 11:37 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/15/09 11:37 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 11:37 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 11:37 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 11:37 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 11:37 | 106-46-7 | |
| Dichlorodifluoromethane | **165** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/15/09 11:37 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 11:37 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 11:37 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 11:37 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 11:37 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 11:37 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 11:37 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 11:37 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 11:37 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 11:37 | 76-14-2 | |
| Ethanol | **9.9** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/15/09 11:37 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 11:37 | 141-78-6 | |
| Ethylbenzene | **2.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 11:37 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 11:37 | 622-96-8 | |
| n-Heptane | **1.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 11:37 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/15/09 11:37 | 87-68-3 | |
| n-Hexane | **2.1** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/15/09 11:37 | 110-54-3 | |
| 2-Hexanone | **10.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 11:37 | 591-78-6 | |
| Methylene Chloride | **1.7** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 11:37 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 11:37 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 11:37 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/15/09 11:37 | 91-20-3 | |
| 2-Propanol | **372** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 11:37 | 67-63-0 | E |
| Propylene | **6.6** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/15/09 11:37 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/15/09 11:37 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 11:37 | 79-34-5 | |
| Tetrachloroethene | **27.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 11:37 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#11 (8')** **Lab ID: 1092382003** Collected: 04/02/09 15:25 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 11:37 | 109-99-9 | |
| Toluene | **17.8** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/15/09 11:37 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 11:37 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 11:37 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 11:37 | 79-00-5 | |
| Trichloroethene | **13.8** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 11:37 | 79-01-6 | |
| Trichlorofluoromethane | **431** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 11:37 | 75-69-4 | E |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 11:37 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **4.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 11:37 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 11:37 | 108-67-8 | |
| Vinyl acetate | **6.2** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 11:37 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/15/09 11:37 | 75-01-4 | |
| m&p-Xylene | **3.0** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/15/09 11:37 | 1330-20-7 | |
| o-Xylene | **1.4** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 11:37 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#3 (8')** **Lab ID: 1092382004** Collected: 04/02/09 16:03 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **40.0** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/14/09 19:03 | 67-64-1 | |
| Benzene | **4.9** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/14/09 19:03 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 19:03 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/14/09 19:03 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/14/09 19:03 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/14/09 19:03 | 106-99-0 | |
| 2-Butanone (MEK) | **5.6** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 19:03 | 78-93-3 | |
| Carbon disulfide | **4.5** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/14/09 19:03 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/14/09 19:03 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 19:03 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/14/09 19:03 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 19:03 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/14/09 19:03 | 74-87-3 | |
| Cyclohexane | **2.6** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/14/09 19:03 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/14/09 19:03 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 19:03 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 19:03 | 95-50-1 | |
| 1,3-Dichlorobenzene | **35.3** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 19:03 | 541-73-1 | |
| 1,4-Dichlorobenzene | **36.0** | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/14/09 19:03 | 106-46-7 | |
| Dichlorodifluoromethane | **3.3** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/14/09 19:03 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 19:03 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/14/09 19:03 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 19:03 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 19:03 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/14/09 19:03 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/14/09 19:03 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 19:03 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/14/09 19:03 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 19:03 | 76-14-2 | |
| Ethanol | **10.3** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/14/09 19:03 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 19:03 | 141-78-6 | |
| Ethylbenzene | **11.4** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 19:03 | 100-41-4 | |
| 4-Ethyltoluene | **7.3** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 19:03 | 622-96-8 | |
| n-Heptane | **4.8** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 19:03 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/14/09 19:03 | 87-68-3 | |
| n-Hexane | **7.9** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/14/09 19:03 | 110-54-3 | |
| 2-Hexanone | **23.1** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 19:03 | 591-78-6 | |
| Methylene Chloride | **1.4** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 19:03 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/14/09 19:03 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/14/09 19:03 | 1634-04-4 | |
| Naphthalene | **3.8** | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/14/09 19:03 | 91-20-3 | |
| 2-Propanol | **82.6** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 19:03 | 67-63-0 | E |
| Propylene | **16.3** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/14/09 19:03 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/14/09 19:03 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 19:03 | 79-34-5 | |
| Tetrachloroethene | **52.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/14/09 19:03 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6425 Oxford#3 (8')** **Lab ID: 1092382004** Collected: 04/02/09 16:03 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **2.2** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/14/09 19:03 | 109-99-9 | |
| Toluene | **50.1** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/14/09 19:03 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/14/09 19:03 | 120-82-1 | |
| 1,1,1-Trichloroethane | **7.9** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 19:03 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 19:03 | 79-00-5 | |
| Trichloroethene | **37.8** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 19:03 | 79-01-6 | |
| Trichlorofluoromethane | **2.6** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/14/09 19:03 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/14/09 19:03 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **29.1** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 19:03 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/14/09 19:03 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/14/09 19:03 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/14/09 19:03 | 75-01-4 | |
| m&p-Xylene | **13.5** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/14/09 19:03 | 1330-20-7 | |
| o-Xylene | **6.0** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/14/09 19:03 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6225 37th.#2 (8')** **Lab ID: 1092382005** Collected: 04/02/09 16:23 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **31.4** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/15/09 13:09 | 67-64-1 | |
| Benzene | **4.5** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/15/09 13:09 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 13:09 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/15/09 13:09 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/15/09 13:09 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/15/09 13:09 | 106-99-0 | |
| 2-Butanone (MEK) | **3.5** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 13:09 | 78-93-3 | |
| Carbon disulfide | **1.8** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/15/09 13:09 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/15/09 13:09 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 13:09 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/15/09 13:09 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 13:09 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/15/09 13:09 | 74-87-3 | |
| Cyclohexane | **4.5** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/15/09 13:09 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/15/09 13:09 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 13:09 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 13:09 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 13:09 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 13:09 | 106-46-7 | |
| Dichlorodifluoromethane | **1.7** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/15/09 13:09 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 13:09 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 13:09 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 13:09 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 13:09 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 13:09 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 13:09 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 13:09 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 13:09 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 13:09 | 76-14-2 | |
| Ethanol | **12.8** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/15/09 13:09 | 64-17-5 | IC |
| Ethyl acetate | **1.2** | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 13:09 | 141-78-6 | |
| Ethylbenzene | **4.8** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 13:09 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 13:09 | 622-96-8 | |
| n-Heptane | **4.7** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 13:09 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/15/09 13:09 | 87-68-3 | |
| n-Hexane | **8.0** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/15/09 13:09 | 110-54-3 | |
| 2-Hexanone | **7.7** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 13:09 | 591-78-6 | |
| Methylene Chloride | **13.7** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 13:09 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 13:09 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 13:09 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/15/09 13:09 | 91-20-3 | |
| 2-Propanol | **49.0** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 13:09 | 67-63-0 | E |
| Propylene | **16.0** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/15/09 13:09 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/15/09 13:09 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 13:09 | 79-34-5 | |
| Tetrachloroethene | **2.2** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 13:09 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6225 37th.#2 (8')** **Lab ID: 1092382005** Collected: 04/02/09 16:23 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **2.1** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 13:09 | 109-99-9 | |
| Toluene | **25.6** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/15/09 13:09 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 13:09 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 13:09 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 13:09 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 13:09 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 13:09 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 13:09 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **8.9** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 13:09 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 13:09 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 13:09 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/15/09 13:09 | 75-01-4 | |
| m&p-Xylene | **5.6** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/15/09 13:09 | 1330-20-7 | |
| o-Xylene | **2.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 13:09 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6225 37th.#3 (8')** **Lab ID: 1092382006** Collected: 04/02/09 16:49 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **40.4** | ug/m3 | 0.64 | 0.32 | 1.34 | | 04/15/09 01:50 | 67-64-1 | |
| Benzene | **7.5** | ug/m3 | 0.87 | 0.44 | 1.34 | | 04/15/09 01:50 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 01:50 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 04/15/09 01:50 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 04/15/09 01:50 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 04/15/09 01:50 | 106-99-0 | |
| 2-Butanone (MEK) | **4.9** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 01:50 | 78-93-3 | |
| Carbon disulfide | **3.1** | ug/m3 | 0.84 | 0.42 | 1.34 | | 04/15/09 01:50 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 04/15/09 01:50 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 01:50 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 04/15/09 01:50 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 01:50 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 04/15/09 01:50 | 74-87-3 | |
| Cyclohexane | **6.9** | ug/m3 | 0.91 | 0.46 | 1.34 | | 04/15/09 01:50 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 04/15/09 01:50 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 01:50 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 01:50 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 01:50 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 04/15/09 01:50 | 106-46-7 | |
| Dichlorodifluoromethane | **2.0** | ug/m3 | 1.3 | 0.67 | 1.34 | | 04/15/09 01:50 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 01:50 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 04/15/09 01:50 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 01:50 | 75-35-4 | |
| cis-1,2-Dichloroethene | **1.1** | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 01:50 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 04/15/09 01:50 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 04/15/09 01:50 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 01:50 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 04/15/09 01:50 | 10061-02-6 | |
| Dichlorotetrafluoroethane | **8.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 01:50 | 76-14-2 | |
| Ethanol | **20.9** | ug/m3 | 2.5 | 1.1 | 1.34 | | 04/15/09 01:50 | 64-17-5 | IC |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 01:50 | 141-78-6 | |
| Ethylbenzene | **9.6** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 01:50 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 01:50 | 622-96-8 | |
| n-Heptane | **8.9** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 01:50 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 04/15/09 01:50 | 87-68-3 | |
| n-Hexane | **16.6** | ug/m3 | 0.96 | 0.48 | 1.34 | | 04/15/09 01:50 | 110-54-3 | |
| 2-Hexanone | **13.2** | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 01:50 | 591-78-6 | |
| Methylene Chloride | **2.9** | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 01:50 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 04/15/09 01:50 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 04/15/09 01:50 | 1634-04-4 | |
| Naphthalene | **4.6** | ug/m3 | 3.6 | 1.8 | 1.34 | | 04/15/09 01:50 | 91-20-3 | |
| 2-Propanol | **28.0** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 01:50 | 67-63-0 | |
| Propylene | **22.7** | ug/m3 | 0.47 | 0.23 | 1.34 | | 04/15/09 01:50 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 04/15/09 01:50 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 01:50 | 79-34-5 | |
| Tetrachloroethene | **32.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 04/15/09 01:50 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

**Sample: VP-6225 37th.#3 (8')** **Lab ID: 1092382006** Collected: 04/02/09 16:49 Received: 04/03/09 15:10 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | **4.2** | ug/m3 | 0.80 | 0.40 | 1.34 | | 04/15/09 01:50 | 109-99-9 | |
| Toluene | **35.3** | ug/m3 | 1.0 | 0.52 | 1.34 | | 04/15/09 01:50 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 04/15/09 01:50 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 01:50 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 01:50 | 79-00-5 | |
| Trichloroethene | **49.2** | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 01:50 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 04/15/09 01:50 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 04/15/09 01:50 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **12.0** | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 01:50 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 04/15/09 01:50 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 04/15/09 01:50 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 04/15/09 01:50 | 75-01-4 | |
| m&p-Xylene | **7.6** | ug/m3 | 2.4 | 1.2 | 1.34 | | 04/15/09 01:50 | 1330-20-7 | |
| o-Xylene | **3.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 04/15/09 01:50 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

QC Batch: AIR/8390 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1092382001, 1092382002, 1092382003, 1092382004, 1092382005, 1092382006

METHOD BLANK: 606276 Matrix: Air
Associated Lab Samples: 1092382001, 1092382002, 1092382003, 1092382004, 1092382005, 1092382006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 04/14/09 15:55 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 04/14/09 15:55 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 04/14/09 15:55 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 04/14/09 15:55 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 04/14/09 15:55 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 04/14/09 15:55 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 04/14/09 15:55 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 04/14/09 15:55 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 04/14/09 15:55 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 04/14/09 15:55 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| Acetone | ug/m3 | ND | 0.48 | 04/14/09 15:55 | |
| Benzene | ug/m3 | ND | 0.65 | 04/14/09 15:55 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Bromoform | ug/m3 | ND | 2.1 | 04/14/09 15:55 | |
| Bromomethane | ug/m3 | ND | 0.79 | 04/14/09 15:55 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 04/14/09 15:55 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 04/14/09 15:55 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 04/14/09 15:55 | |
| Chloroethane | ug/m3 | ND | 0.54 | 04/14/09 15:55 | |
| Chloroform | ug/m3 | ND | 0.99 | 04/14/09 15:55 | |
| Chloromethane | ug/m3 | ND | 0.42 | 04/14/09 15:55 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/14/09 15:55 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 04/14/09 15:55 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 04/14/09 15:55 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 04/14/09 15:55 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Ethanol | ug/m3 | ND | 1.9 | 04/14/09 15:55 | IC |
| Ethyl acetate | ug/m3 | ND | 0.73 | 04/14/09 15:55 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 04/14/09 15:55 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 04/14/09 15:55 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 04/14/09 15:55 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

METHOD BLANK: 606276 Matrix: Air

Associated Lab Samples: 1092382001, 1092382002, 1092382003, 1092382004, 1092382005, 1092382006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 04/14/09 15:55 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 04/14/09 15:55 | |
| n-Heptane | ug/m3 | ND | 0.83 | 04/14/09 15:55 | |
| n-Hexane | ug/m3 | ND | 0.72 | 04/14/09 15:55 | |
| Naphthalene | ug/m3 | ND | 2.7 | 04/14/09 15:55 | |
| o-Xylene | ug/m3 | ND | 0.88 | 04/14/09 15:55 | |
| Propylene | ug/m3 | ND | 0.35 | 04/14/09 15:55 | |
| Styrene | ug/m3 | ND | 0.87 | 04/14/09 15:55 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 04/14/09 15:55 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 04/14/09 15:55 | |
| Toluene | ug/m3 | ND | 0.77 | 04/14/09 15:55 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 04/14/09 15:55 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 04/14/09 15:55 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 04/14/09 15:55 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 04/14/09 15:55 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 04/14/09 15:55 | |

LABORATORY CONTROL SAMPLE: 606277

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 59.0 | 103 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 78.7 | 110 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 56.8 | 101 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 51.9 | 68 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 31.2 | 76 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 33.7 | 83 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 82.5 | 110 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 49.3 | 100 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 88.6 | 109 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 72.6 | 116 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 42.1 | 94 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 60.3 | 119 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.1 | 107 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 19.7 | 87 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 69.1 | 108 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 69.4 | 110 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 32.5 | 105 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 40.6 | 96 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 12.2 | 51 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 47.1 | 94 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 42.5 | 100 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 14.7 | 61 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 35.1 | 107 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 67.6 | 99 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

LABORATORY CONTROL SAMPLE: 606277

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 107 | 100 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 34.2 | 86 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 31.5 | 97 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 66.1 | 102 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 54.5 | 117 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 23.6 | 89 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 50.7 | 105 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 17.8 | 85 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 45.0 | 108 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 60.4 | 125 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 25.5 | 72 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 90.8 | 100 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 48.3 | 98 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 55.2 | 78 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 7.6 | 40 | 30-150 | IC |
| Ethyl acetate | ug/m3 | 37.4 | 49.1 | 131 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 48.8 | 101 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 111 | 105 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 80.6 | 87 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 34.7 | 95 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 26.7 | 77 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 36.3 | 85 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 35.9 | 92 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 56.6 | 112 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 48.1 | 106 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 21.9 | 118 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 47.2 | 109 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 79.1 | 110 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 17.5 | 78 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 41.1 | 103 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 37.0 | 88 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 49.5 | 101 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 71.8 | 130 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 45.7 | 82 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 29.8 | 81 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 23.1 | 86 | 57-132 | |

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 1.8 | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | R1 |



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# QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 6.7 | 4.9 | 31 | 25 | R1 |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 1.9J | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 6.2 | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 4.5 | 3.2 | 34 | 25 | R1 |
| 2-Hexanone | ug/m3 | 6.9 | 4.6 | 39 | 25 | R1 |
| 2-Propanol | ug/m3 | 51.7 | 36.0 | 36 | 25 | R1 |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 25.8 | 18.6 | 32 | 25 | R1 |
| Benzene | ug/m3 | 1.3 | ND | | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.7 | 1.2 | 34 | 25 | R1 |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | ND | ND | | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 50.5 | 33.3 | 41 | 25 | 1M,R1 |
| Dichlorotetrafluoroethane | ug/m3 | 27.6 | ND | | 25 | |
| Ethanol | ug/m3 | 11.1 | 7.4 | 39 | 25 | IC,R1 |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 2.3 | 1.6 | 36 | 25 | R1 |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 3.6 | 2.6 | 33 | 25 | R1 |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 1.4 | ND | | 25 | |
| n-Hexane | ug/m3 | 2.1 | 1.4 | 36 | 25 | R1 |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | 1.5 | ND | | 25 | |
| Propylene | ug/m3 | 5.8 | 3.5 | 49 | 25 | R1 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 59.2 | 41.0 | 36 | 25 | R1 |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 18.2 | 12.8 | 35 | 25 | R1 |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

SAMPLE DUPLICATE: 607266

| Parameter | Units | 1092382001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 10.7 | 7.2 | 39 | 25 | R1 |
| Trichlorofluoromethane | ug/m3 | 215 | 156 | 32 | 25 | R1 |
| Vinyl acetate | ug/m3 | 1.9 | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1092382001

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 1092382002

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 1092382003

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1092382004

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1092382005

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

Sample: 1092382006

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| 1M | The internal standard recoveries associated with these results exceed the upper control limit. The reported results should be considered estimated values. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| IC | The initial calibration for this compound was outside of method control limits. The result is estimated. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St.Louis Park Invest
Pace Project No.: 1092382

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1092382001** | **VP-6425 Oxford#2 (8')** | TO-15 | AIR/8390 | | |
| **1092382002** | **VP-6425 Oxford#1 (8')** | TO-15 | AIR/8390 | | |
| **1092382003** | **VP-6425 Oxford#11 (8')** | TO-15 | AIR/8390 | | |
| **1092382004** | **VP-6425 Oxford#3 (8')** | TO-15 | AIR/8390 | | |
| **1092382005** | **VP-6225 37th.#2 (8')** | TO-15 | AIR/8390 | | |
| **1092382006** | **VP-6225 37th.#3 (8')** | TO-15 | AIR/8390 | | |



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# Chain of Custody Record

№ 4328

STS | AECOM

1092882

Contact Person: Peter Rzepecki
Phone No. 763-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name: St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number _____ Through _____

Laboratory: Pace
Contact Person: Carol Dany
Phone No. 612-607-6436
Results Due: Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6425 Oxford #2 (8') | 4/3/09 | 1443 | X | | 1 | Air | 0 | 1 | | | | | TO-15 | C01 |
| VP-6425 Oxford #1 (8') | ↓ | 1520 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | C02 |
| VP-6425 Oxford #11 (8') | | 1525 | | | | | | | | | | | | C03 |
| VP-6425 Oxford #3 (8') | | 1603 | | | | | | | | | | | | C04 |
| VP-6225 37th #2 (8') | | 1623 | | | | | | | | | | | | C05 |
| VP-6225 37th #3 (8') | ↓ | 1649 | ↓ | | ↓ | ↓ | ↓ | ↓ | | | | | ↓ | C06 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date Above | Time Above | Delivery by: Pace | Date | Time |
| Received by: Pace | Date 4/3/09 | Time 1510 | Relinquished by: Jason Rose | Date 4/3/09 | Time 1510 |
| Received by: | Date | Time | Relinquished by: Pace | Date 4/3/09 | Time 1511 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: PACE | Date 4/3/09 | Time 1510 | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

09/4/4

Pace Analytical

# Sample Condition Upon Receipt

Client Name: AECOM

Project # 1072352

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☒ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other Temp Blank: Yes No ☒

Thermometer Used ~~80344042, 170425~~ Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature AMB Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/3/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☐No ☒N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AR (Summa) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:**

Person Contacted: Date/Time: Field Data Required? Y / N

Comments/ Resolution: 6 Cans 0 FCU's

Project Manager Review: CMD Date: 4-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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May 15, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1094258

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 04, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11887
New York Certification #: 11888
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094258001** | **B-6425 Oxford #1 (32')** | Solid | 05/04/09 11:42 | 05/04/09 17:00 |
| **1094258002** | **B-6425 Oxford #3 (32')** | Solid | 05/04/09 16:00 | 05/04/09 17:00 |
| **1094258003** | **Trip Blank** | Solid | 05/04/09 00:00 | 05/04/09 17:00 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1094258001** | **B-6425 Oxford #1 (32')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094258002** | **B-6425 Oxford #3 (32')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094258003** | **Trip Blank** | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** May 15, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** May 15, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4427

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: B-6425 Oxford #1 (32')** **Lab ID: 1094258001** Collected: 05/04/09 11:42 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **11.2** | % | 0.10 | 0.10 | 1 | | 05/12/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 22.8 | 7.6 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.7 | 1.9 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.7 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.7 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.7 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.7 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.7 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.7 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.7 | 2.1 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.7 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.7 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.7 | 0.38 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.7 | 0.91 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.7 | 0.24 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.7 | 1.7 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.7 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.7 | 0.97 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.7 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.7 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.7 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.7 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.7 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.7 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.7 | 0.38 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.7 | 0.30 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.7 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.7 | 0.91 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.7 | 0.79 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.7 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.7 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.7 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.7 | 0.86 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.7 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.7 | 0.73 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.7 | 0.91 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.7 | 0.84 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.7 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.7 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.7 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.7 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.7 | 0.30 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.7 | 0.89 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: B-6425 Oxford #1 (32')** **Lab ID: 1094258001** Collected: 05/04/09 11:42 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.7 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.7 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.7 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.7 | 0.97 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.7 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.7 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.7 | 0.30 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.7 | 0.13 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.7 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.7 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.7 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.7 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.7 | 0.97 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.7 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.7 | 0.45 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.7 | 0.88 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.7 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.7 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.7 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.7 | 1.6 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.7 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.7 | 0.17 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.7 | 0.30 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.7 | 0.99 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 11.4 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.7 | 0.64 | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 95-47-6 | |
| Dibromofluoromethane (S) | 87 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:30 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: B-6425 Oxford #3 (32')** **Lab ID: 1094258002** Collected: 05/04/09 16:00 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **10.6** | % | 0.10 | 0.10 | 1 | | 05/12/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 16.3 | 5.4 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.1 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.1 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.1 | 0.89 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.1 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.1 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.1 | 0.92 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.1 | 1.5 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.1 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.1 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.1 | 0.27 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.1 | 0.17 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.1 | 0.99 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.1 | 0.27 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.1 | 0.56 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.1 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.1 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.1 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.1 | 0.86 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.1 | 0.92 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: B-6425 Oxford #3 (32')** **Lab ID: 1094258002** Collected: 05/04/09 16:00 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.1 | 0.33 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.1 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.1 | 0.095 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.35 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.1 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.1 | 0.96 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.1 | 0.32 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.1 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.1 | 0.88 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.1 | 0.12 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.1 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.2 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.1 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 95-47-6 | |
| Dibromofluoromethane (S) | 86 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 1868-53-7 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:53 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: Trip Blank** **Lab ID: 1094258003** Collected: 05/04/09 00:00 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.0 | 6.7 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.0 | 1.6 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.0 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.0 | 0.35 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.0 | 0.99 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.0 | 1.8 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.0 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.0 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.0 | 0.34 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.0 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.0 | 1.5 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.0 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.0 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.0 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.0 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.0 | 0.72 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.0 | 0.33 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.0 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.0 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.0 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.0 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.0 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.0 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.0 | 0.64 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.0 | 0.74 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.0 | 0.78 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 87-68-3 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.0 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.0 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.0 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-09-2 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

**Sample: Trip Blank** **Lab ID: 1094258003** Collected: 05/04/09 00:00 Received: 05/04/09 17:00 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.0 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.0 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.0 | 0.12 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.74 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.0 | 0.92 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.0 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.0 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.0 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.0 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.0 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.0 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.0 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.0 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.0 | 0.15 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.0 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10.0 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.0 | 0.56 | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 95-47-6 | |
| Dibromofluoromethane (S) | 87 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 95 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 10:06 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

QC Batch: MSV/4427 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1094258001, 1094258002, 1094258003

METHOD BLANK: 156233 Matrix: Solid
Associated Lab Samples: 1094258001, 1094258002, 1094258003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Acetone | ug/kg | ND | 20.0 | 05/11/09 08:56 | |
| Allyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Benzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromoform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

METHOD BLANK: 156233 Matrix: Solid

Associated Lab Samples: 1094258001, 1094258002, 1094258003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 05/11/09 08:56 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Naphthalene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| o-Xylene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Styrene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Toluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Bromofluorobenzene (S) | % | 96 | 70-130 | 05/11/09 08:56 | |
| Dibromofluoromethane (S) | % | 84 | 63-130 | 05/11/09 08:56 | |
| Toluene-d8 (S) | % | 102 | 70-130 | 05/11/09 08:56 | |

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 44.6 | 45.7 | 89 | 91 | 70-130 | 2 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 40.8 | 41.9 | 82 | 84 | 70-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 47.8 | 48.5 | 96 | 97 | 70-130 | 1 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 39.9 | 40.9 | 80 | 82 | 67-137 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 50.1 | 51.5 | 100 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 39.7 | 39.6 | 79 | 79 | 63-134 | .2 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 44.4 | 44.1 | 89 | 88 | 70-130 | .6 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 35.6 | 36.0 | 71 | 72 | 35-150 | 1 | 42 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 39.2 | 39.2 | 78 | 78 | 50-150 | .06 | 20 | |
| Acetone | ug/kg | 50 | 28.3 | 31.9 | 57 | 64 | 10-197 | 12 | 85 | |
| Benzene | ug/kg | 50 | 43.8 | 44.9 | 88 | 90 | 70-130 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 47.3 | 48.6 | 95 | 97 | 70-130 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.5 | 51.3 | 105 | 103 | 64-137 | 2 | 20 | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.6 | 51.9 | 105 | 104 | 66-136 | 1 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 46.1 | 47.8 | 92 | 96 | 70-130 | 4 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.9 | 53.2 | 108 | 106 | 70-130 | 1 | 20 | |
| Chloroethane | ug/kg | 50 | 47.2 | 47.6 | 94 | 95 | 59-140 | .7 | 20 | |
| Chloroform | ug/kg | 50 | 43.2 | 42.9 | 86 | 86 | 69-130 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 38.2 | 39.9 | 76 | 80 | 27-141 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 44.4 | 45.4 | 89 | 91 | 70-130 | 2 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 47.8 | 48.1 | 96 | 96 | 70-130 | .5 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 48.9 | 48.0 | 98 | 96 | 70-130 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.0 | 52.1 | 104 | 104 | 70-130 | .09 | 20 | |
| m&p-Xylene | ug/kg | 100 | 109 | 110 | 109 | 110 | 70-130 | 1 | 20 | |
| Methylene Chloride | ug/kg | 50 | 43.2 | 44.8 | 86 | 90 | 70-130 | 4 | 20 | |
| o-Xylene | ug/kg | 50 | 52.8 | 53.1 | 106 | 106 | 70-130 | .5 | 20 | |
| Styrene | ug/kg | 50 | 49.3 | 50.1 | 99 | 100 | 70-130 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.1 | 57.2 | 112 | 114 | 67-139 | 2 | 20 | |
| Toluene | ug/kg | 50 | 52.3 | 52.8 | 105 | 106 | 70-130 | 1 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 44.9 | 46.1 | 90 | 92 | 70-130 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 47.1 | 46.9 | 94 | 94 | 70-130 | .3 | 20 | |
| Trichloroethene | ug/kg | 50 | 51.9 | 53.1 | 104 | 106 | 70-130 | 2 | 20 | |
| Vinyl chloride | ug/kg | 50 | 44.0 | 45.7 | 88 | 91 | 65-142 | 4 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 95 | 94 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | 84 | 82 | 63-130 | | | |
| Toluene-d8 (S) | % | | | | 104 | 102 | 70-130 | | | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

QC Batch: MPRP/15665
QC Batch Method: % Moisture
Analysis Method: % Moisture
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1094258001, 1094258002

SAMPLE DUPLICATE: 619590

| Parameter | Units | 1093763079 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 20.1 | 20.4 | 1 | 30 | |

SAMPLE DUPLICATE: 619591

| Parameter | Units | 1094444006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 19.2 | 14.3 | 29 | 30 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4427

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1094258

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094258001** | **B-6425 Oxford #1 (32')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094258002** | **B-6425 Oxford #3 (32')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094258003** | **Trip Blank** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094258001** | **B-6425 Oxford #1 (32')** | % Moisture | MPRP/15665 | | |
| **1094258002** | **B-6425 Oxford #3 (32')** | % Moisture | MPRP/15665 | | |



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SHORT HOLD

# CHAIN-OF-CUSTODY / Analytical Request Document

RUSH

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1094258

* MPCA DAVE MOORE

Page: 1 of 1

1300991

**Section A** Required Client Information:

Company: AECOM
Address: 161 Cheshire Ln N, Minneapolis, MN 55441
Email To: Peter.rzepecki@aecom.com
Phone: 763 552 4245 Fax:
Requested Due Date/TAT: STANDARD

**Section B** Required Project Information:

Report To: Peter Rzepecki
Copy To: peter.rzepecki@aecom.com
Purchase Order No.:
Project Name: ST. Louis Park
Project Number: 0166 0024

**Section C** Invoice Information:

Attention: SAME
Company Name:
Address: SAME
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MN

**Section D** Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED Composite Start Date | Composite Start Time | Composite End/Grab Date | Composite End/Grab Time | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other Deionized $H_2O$ | Analysis Test (Y/N) Tricorb VOCs | Residual Chlorine (Y/N) | Pace Project No./ Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | B-6425 Oxford #1 (32') | SL | G | 5/4/09 | 1142 | | | | 4 | X | | | | | | X | X | X | | 001 |
| 2 | B-6425 Oxford #3 (32') | | | | 1600 | | | | 4 | X | | | | | | X | X | X | | 002 |
| 3 | TRIP BLANK | | | 5/4/09 | — | | | | 1 | | | | | | | X | | X | | 003 |
| 4 | TRIP BLANK | | | 5/4/09 | — | | | | 1 | | | | | | | | X | X | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |

Requested Analysis Filtered (Y/N): N

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | JASON ROWE | 5/4/09 | 1700 | [signature] | 5/4/09 | 1700 | 2.8 | Y | N | Y |

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: JASON ROWE
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 16 15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

# Sample Condition Upon Receipt

Pace Analytical

Client Name: Aecom  Project # 1094258

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no  Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____  Temp Blank: Yes ✓ No _____

Thermometer Used ~~80844042~~ 179425  Type of Ice: (Wet) Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.8  Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5-4-09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: WT | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: (VOA) Coliform, TOC, Oil and Grease, WI-DRO (water) | ☑Yes ☐No | Initial when completed: ✓ / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☑Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): M-117408-3 | | DI H2O - 081808-3 |

**Client Notification/ Resolution:**  Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** GMD  **Date:** 5-5-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

5-4-09



F-ALL-C003rev.5, 5Aug2008

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 19, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1094366

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11887
New York Certification #: 11888
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094366001** | **B-6528 Lake #1 (40')** | Solid | 05/05/09 09:55 | 05/05/09 17:20 |
| **1094366002** | **B-6528 Lake #11 (40')** | Solid | 05/05/09 10:10 | 05/05/09 17:20 |
| **1094366003** | **B-500 Lake #1 (42')** | Solid | 05/05/09 14:50 | 05/05/09 17:20 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1094366001** | **B-6528 Lake #1 (40')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094366002** | **B-6528 Lake #11 (40')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094366003** | **B-500 Lake #1 (42')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** May 19, 2009

**General Information:**
3 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MPRP/15646

R2: RPD value was outside control limits due to matrix interference

- DUP (Lab ID: 618995)
  - Percent Moisture

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** May 19, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4427

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-6528 Lake #1 (40')** **Lab ID: 1094366001** Collected: 05/05/09 09:55 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **14.3** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 15.2 | 5.1 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 3.8 | 1.2 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 107-05-1 | |
| Benzene | ND | ug/kg | 3.8 | 0.47 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.8 | 0.39 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.8 | 0.83 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.8 | 0.27 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.8 | 0.75 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 3.8 | 0.86 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 3.8 | 1.4 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.8 | 0.50 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.8 | 0.38 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.8 | 0.26 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.8 | 0.61 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.8 | 0.16 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 3.8 | 1.1 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.8 | 0.41 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 3.8 | 0.65 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.8 | 0.42 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.8 | 0.47 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.8 | 0.92 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.8 | 0.54 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.8 | 0.46 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.8 | 0.55 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.8 | 0.25 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 3.8 | 0.61 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.8 | 0.52 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.8 | 0.44 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.8 | 0.40 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.8 | 0.76 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.8 | 0.57 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 3.8 | 0.51 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.8 | 0.49 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.8 | 0.61 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.8 | 0.56 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.8 | 0.80 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.8 | 0.41 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.8 | 0.40 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 3.8 | 0.86 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.8 | 0.59 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-6528 Lake #1 (40')** **Lab ID: 1094366001** Collected: 05/05/09 09:55 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.8 | 0.53 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.8 | 0.47 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 3.8 | 0.31 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 3.8 | 0.65 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.8 | 0.42 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.8 | 0.48 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.8 | 0.089 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.8 | 0.33 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.8 | 0.57 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 3.8 | 0.70 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 3.8 | 0.90 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 109-99-9 | |
| Toluene | ND | ug/kg | 3.8 | 0.65 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.8 | 0.53 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.8 | 0.30 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.8 | 0.59 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.8 | 0.54 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.8 | 0.44 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.8 | 0.67 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.8 | 1.1 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 3.8 | 0.82 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.8 | 0.11 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 3.8 | 0.66 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.6 | 0.81 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.8 | 0.43 | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 95-47-6 | |
| Dibromofluoromethane (S) | 87 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/12/09 09:22 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-6528 Lake #11 (40')** **Lab ID: 1094366002** Collected: 05/05/09 10:10 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **13.1** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 21.9 | 7.3 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.5 | 1.8 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.5 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.5 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.5 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.5 | 0.38 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.5 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.5 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.5 | 2.0 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.5 | 0.72 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.5 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.5 | 0.37 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.5 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.5 | 0.23 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.5 | 1.6 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.5 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.5 | 0.93 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.5 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.5 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.5 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.5 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.5 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.5 | 0.78 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.5 | 0.37 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.5 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.5 | 0.28 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.5 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.5 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.5 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.5 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.5 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.5 | 0.83 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.5 | 0.74 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.5 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.5 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.5 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.5 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.5 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.5 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.5 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.5 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.5 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-6528 Lake #11 (40')** **Lab ID: 1094366002** Collected: 05/05/09 10:10 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.5 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.5 | 0.68 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.5 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.5 | 0.93 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.5 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.5 | 0.68 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.5 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.5 | 0.13 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.5 | 0.48 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.5 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.5 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.5 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.5 | 0.93 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.5 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.5 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.5 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.5 | 0.78 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.5 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.5 | 0.96 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.5 | 1.5 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.5 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.5 | 0.16 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.5 | 0.28 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.5 | 0.95 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 11.0 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.5 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 95-47-6 | |
| Dibromofluoromethane (S) | 86 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 1868-53-7 | |
| Toluene-d8 (S) | 100 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:17 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-500 Lake #1 (42')** **Lab ID: 1094366003** Collected: 05/05/09 14:50 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **19.3** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 19.2 | 6.4 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.8 | 1.6 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.8 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.8 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.8 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.8 | 0.34 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.8 | 0.95 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.8 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.8 | 1.8 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.8 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.8 | 0.48 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.8 | 0.76 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.8 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.8 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.8 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.8 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.8 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.8 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.8 | 0.68 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.8 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.8 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.8 | 0.32 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.8 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.8 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.8 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.8 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.96 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.8 | 0.72 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.8 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.8 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.8 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.8 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.8 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.8 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.8 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.8 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

**Sample: B-500 Lake #1 (42')** **Lab ID: 1094366003** Collected: 05/05/09 14:50 Received: 05/05/09 17:20 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.8 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.8 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.8 | 0.39 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.8 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.8 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.8 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.8 | 0.11 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.8 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.8 | 0.88 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.8 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.8 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.8 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.8 | 0.38 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.8 | 0.74 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.8 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.8 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.8 | 0.84 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.8 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.8 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.8 | 0.14 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.8 | 0.84 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.6 | 1.0 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.8 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 95-47-6 | |
| Dibromofluoromethane (S) | 85 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 11:40 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

QC Batch: MSV/4427 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1094366001, 1094366002, 1094366003

METHOD BLANK: 156233 Matrix: Solid
Associated Lab Samples: 1094366001, 1094366002, 1094366003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Acetone | ug/kg | ND | 20.0 | 05/11/09 08:56 | |
| Allyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Benzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromoform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

METHOD BLANK: 156233 Matrix: Solid

Associated Lab Samples: 1094366001, 1094366002, 1094366003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 05/11/09 08:56 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Naphthalene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| o-Xylene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Styrene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Toluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Bromofluorobenzene (S) | % | 96 | 70-130 | 05/11/09 08:56 | |
| Dibromofluoromethane (S) | % | 84 | 63-130 | 05/11/09 08:56 | |
| Toluene-d8 (S) | % | 102 | 70-130 | 05/11/09 08:56 | |

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 44.6 | 45.7 | 89 | 91 | 70-130 | 2 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 40.8 | 41.9 | 82 | 84 | 70-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 47.8 | 48.5 | 96 | 97 | 70-130 | 1 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 39.9 | 40.9 | 80 | 82 | 67-137 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 50.1 | 51.5 | 100 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 39.7 | 39.6 | 79 | 79 | 63-134 | .2 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 44.4 | 44.1 | 89 | 88 | 70-130 | .6 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 35.6 | 36.0 | 71 | 72 | 35-150 | 1 | 42 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 39.2 | 39.2 | 78 | 78 | 50-150 | .06 | 20 | |
| Acetone | ug/kg | 50 | 28.3 | 31.9 | 57 | 64 | 10-197 | 12 | 85 | |
| Benzene | ug/kg | 50 | 43.8 | 44.9 | 88 | 90 | 70-130 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 47.3 | 48.6 | 95 | 97 | 70-130 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.5 | 51.3 | 105 | 103 | 64-137 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.6 | 51.9 | 105 | 104 | 66-136 | 1 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 46.1 | 47.8 | 92 | 96 | 70-130 | 4 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.9 | 53.2 | 108 | 106 | 70-130 | 1 | 20 | |
| Chloroethane | ug/kg | 50 | 47.2 | 47.6 | 94 | 95 | 59-140 | .7 | 20 | |
| Chloroform | ug/kg | 50 | 43.2 | 42.9 | 86 | 86 | 69-130 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 38.2 | 39.9 | 76 | 80 | 27-141 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 44.4 | 45.4 | 89 | 91 | 70-130 | 2 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 47.8 | 48.1 | 96 | 96 | 70-130 | .5 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 48.9 | 48.0 | 98 | 96 | 70-130 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.0 | 52.1 | 104 | 104 | 70-130 | .09 | 20 | |
| m&p-Xylene | ug/kg | 100 | 109 | 110 | 109 | 110 | 70-130 | 1 | 20 | |
| Methylene Chloride | ug/kg | 50 | 43.2 | 44.8 | 86 | 90 | 70-130 | 4 | 20 | |
| o-Xylene | ug/kg | 50 | 52.8 | 53.1 | 106 | 106 | 70-130 | .5 | 20 | |
| Styrene | ug/kg | 50 | 49.3 | 50.1 | 99 | 100 | 70-130 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.1 | 57.2 | 112 | 114 | 67-139 | 2 | 20 | |
| Toluene | ug/kg | 50 | 52.3 | 52.8 | 105 | 106 | 70-130 | 1 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 44.9 | 46.1 | 90 | 92 | 70-130 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 47.1 | 46.9 | 94 | 94 | 70-130 | .3 | 20 | |
| Trichloroethene | ug/kg | 50 | 51.9 | 53.1 | 104 | 106 | 70-130 | 2 | 20 | |
| Vinyl chloride | ug/kg | 50 | 44.0 | 45.7 | 88 | 91 | 65-142 | 4 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 95 | 94 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | 84 | 82 | 63-130 | | | |
| Toluene-d8 (S) | % | | | | 104 | 102 | 70-130 | | | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

QC Batch: MPRP/15646 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1094366001, 1094366002, 1094366003

SAMPLE DUPLICATE: 618995

| Parameter | Units | 1094461001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 7.3 | 4.9 | 40 | 30 | R2 |

SAMPLE DUPLICATE: 618996

| Parameter | Units | 1094366002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 13.1 | 12.8 | 2 | 30 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4427

| | |
|---|---|
| [M5] | A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume. |

## ANALYTE QUALIFIERS

| | |
|---|---|
| R2 | RPD value was outside control limits due to matrix interference |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1094366

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094366001** | **B-6528 Lake #1 (40')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094366002** | **B-6528 Lake #11 (40')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094366003** | **B-500 Lake #1 (42')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094366001** | **B-6528 Lake #1 (40')** | % Moisture | MPRP/15646 | | |
| **1094366002** | **B-6528 Lake #11 (40')** | % Moisture | MPRP/15646 | | |
| **1094366003** | **B-500 Lake #1 (42')** | % Moisture | MPRP/15646 | | |



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* MPCA

# Chain of Custody Record

* short hold time

№ 4216

SHORT HOLD

AECOM 10943366

Record Number ~~4326~~ 4216 Through 4216

Contact Person Peter Rzepacki
Phone No. 763 852 4245 Office Minneapolis
Project No. 04CC0024 PO No.
Project Name St Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory Pace
Contact Person Carol Dawn
Phone No. 612 607 6436
Results Due STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-652S Lake #1(40') | 5/5 | 955 | X | | 4 | Soil | 3 | 1 | | | | | TerraCore VOCs (8260) | 001 |
| B652S Lake St #1(40') | \| | 1010 | X | | 4 | \| | 3 | 1 | | | | | \| | Sample ID: B-652S Lake St. #1(40') 002 |
| B500 Lake #1(42') | \| | 1450 | X | | 4 | ↓ | 3 | 1 | | | | | ↓ | 003 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Collected by: Jason Rowe | Date 5/5/09 | Time See Above | Delivery by: | Date | Time | |
| Received by: | Date | Time | Relinquished by: Jason Rowe | Date 5/5/09 | Time 1720 | |
| Received by: | Date | Time | Relinquished by: | Date | Time | |
| Received by: | Date | Time | Relinquished by: | Date | Time | |
| Received for lab by: | Date 5/5/09 | Time 1720 | Relinquished by: | Date | Time | |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☒ N/A T = 2-8 °C

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM Project # 109 4366

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Foam Temp Blank: Yes K No _____

Thermometer Used ~~80344842~~, 179425 Type of Ice: (Wet) Blue None ☐ Samples on Ice, cooling process has begun

Cooler Temperature 2.8 °C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/5/09 H

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☒Yes ☐No ☐N/A | 6. TERRACORE |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: DAD Date: 5-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

4/5-5-09



F-ALLC003rev.5, 5Aug2008

# Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 1094366 **Workorder Name:** 04660024 St. Louis Park **Owner Received Date:** 5/5/2009 **Results Requested By:** 5/19/2009

**Report To**

Carol Davy
Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone (612)607-1700
Fax (612)607-6444

**Subcontract To**

Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

**Requested Analysis**

| Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: MeOH | Low level PCBs | LAB USE ONLY |
|---|---|---|---|---|---|---|---|
| 1 | B-6528 Lake #1 (40') 001 | 5/5/2009 09:55 | 1094366001 | Solid | 1 | X | 3-40m EEF |
| 2 | B-6528 Lake #11 (40') 002 | 5/5/2009 10:10 | 1094366002 | Solid | 1 | X | ↓ |
| 3 | B-500 Lake #1 (42') 003 | 5/5/2009 14:50 | 1094366003 | Solid | 1 | X | |
| 4 | | | | | | | |
| 5 | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Carol Davy / Pace Dnw | 5/6/09 1320 | WATCO | |
| 2 | WATCO | 5/8/09 1012 | [illegible] | 5/8/09 1012 |
| 3 | | | | |

**Comments**

4017042

**Cooler Temperature on Receipt** _____ °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

Pace Analytical

# Sample Condition Upon Receipt

4017042

Client Name: STS/AECOM Project # 109 4366

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Foam Temp Blank: Yes K No _____

Thermometer Used ~~80344042~~, 179425 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.8 °C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/5/09 H

Temp should be above freezing to 6°C

Comments:

| | | |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. TERRACORE |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL | ☑Yes ☐No ☐N/A | 12. |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 5-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

5-5-09

# Sample Condition Upon Receipt

Pace Analytical

Client Name: PACE MN Project # 4017042

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other Walco

Tracking #:

Optional Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature DRY ICE Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/8/09 RE

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☒No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. 5/19/09 |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: S | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** Date: 5/8/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 19, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1094372

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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## CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094372001** | **B-6528 Lake #1 (8')** | Air | 05/05/09 11:02 | 05/05/09 17:20 |
| **1094372002** | **B-6500 Lake #1 (8')** | Air | 05/05/09 15:30 | 05/05/09 17:20 |
| **1094372003** | **B-6500 Lake #2 (8')** | Air | 05/05/09 16:05 | 05/05/09 17:20 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1094372001** | **B-6528 Lake #1 (8')** | TO-15 | DB1 | 60 |
| **1094372002** | **B-6500 Lake #1 (8')** | TO-15 | DB1 | 60 |
| **1094372003** | **B-6500 Lake #2 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 19, 2009

**General Information:**
3 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- B-6528 Lake #1 (8') (Lab ID: 1094372001)
- B-6500 Lake #1 (8') (Lab ID: 1094372002)
- B-6500 Lake #2 (8') (Lab ID: 1094372003)

Analyte Comments:

QC Batch: AIR/8549

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- B-6528 Lake #1 (8') (Lab ID: 1094372001)
  - 2-Propanol
  - Ethanol
- DUP (Lab ID: 621063)
  - Ethanol

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6528 Lake #1 (8')** **Lab ID: 1094372001** Collected: 05/05/09 11:02 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | ND | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/14/09 20:05 | 67-64-1 | |
| Benzene | **3.7** | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/14/09 20:05 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 20:05 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/14/09 20:05 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/14/09 20:05 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/14/09 20:05 | 106-99-0 | |
| 2-Butanone (MEK) | **7.4** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/14/09 20:05 | 78-93-3 | |
| Carbon disulfide | **1.3** | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/14/09 20:05 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/14/09 20:05 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/14/09 20:05 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/14/09 20:05 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/14/09 20:05 | 67-66-3 | |
| Chloromethane | **1.1** | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/14/09 20:05 | 74-87-3 | |
| Cyclohexane | **3.2** | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/14/09 20:05 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/14/09 20:05 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/14/09 20:05 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 20:05 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 20:05 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 20:05 | 106-46-7 | |
| Dichlorodifluoromethane | **3.0** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/14/09 20:05 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/14/09 20:05 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/14/09 20:05 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 20:05 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 20:05 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 20:05 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/14/09 20:05 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/14/09 20:05 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/14/09 20:05 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 20:05 | 76-14-2 | |
| Ethanol | **185** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/14/09 20:05 | 64-17-5 | E |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/14/09 20:05 | 141-78-6 | |
| Ethylbenzene | **5.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/14/09 20:05 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 20:05 | 622-96-8 | |
| n-Heptane | **6.5** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 20:05 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/14/09 20:05 | 87-68-3 | |
| n-Hexane | **3.7** | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/14/09 20:05 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 20:05 | 591-78-6 | |
| Methylene Chloride | **1.3** | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/14/09 20:05 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 20:05 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/14/09 20:05 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/14/09 20:05 | 91-20-3 | |
| 2-Propanol | **890** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 20:05 | 67-63-0 | E |
| Propylene | **8.3** | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/14/09 20:05 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/14/09 20:05 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 20:05 | 79-34-5 | |
| Tetrachloroethene | **26.3** | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 20:05 | 127-18-4 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6528 Lake #1 (8')** **Lab ID: 1094372001** Collected: 05/05/09 11:02 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/14/09 20:05 | 109-99-9 | |
| Toluene | **20.0** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/14/09 20:05 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/14/09 20:05 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 20:05 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 20:05 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 20:05 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 20:05 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/14/09 20:05 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **9.5** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 20:05 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 20:05 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/14/09 20:05 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/14/09 20:05 | 75-01-4 | |
| m&p-Xylene | **20.1** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/14/09 20:05 | 1330-20-7 | |
| o-Xylene | **6.5** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/14/09 20:05 | 95-47-6 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6500 Lake #1 (8')** **Lab ID: 1094372002** Collected: 05/05/09 15:30 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **273** | ug/m3 | 12.9 | 6.4 | 26.8 | | 05/14/09 21:06 | 67-64-1 | |
| Benzene | ND | ug/m3 | 17.4 | 8.7 | 26.8 | | 05/14/09 21:06 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 37.5 | 18.8 | 26.8 | | 05/14/09 21:06 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 56.3 | 28.1 | 26.8 | | 05/14/09 21:06 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 21.2 | 10.6 | 26.8 | | 05/14/09 21:06 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 12.1 | 6.0 | 26.8 | | 05/14/09 21:06 | 106-99-0 | |
| 2-Butanone (MEK) | **78.7** | ug/m3 | 16.1 | 8.0 | 26.8 | | 05/14/09 21:06 | 78-93-3 | |
| Carbon disulfide | ND | ug/m3 | 16.9 | 8.4 | 26.8 | | 05/14/09 21:06 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 34.8 | 17.4 | 26.8 | | 05/14/09 21:06 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 25.2 | 12.6 | 26.8 | | 05/14/09 21:06 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 14.5 | 7.2 | 26.8 | | 05/14/09 21:06 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 26.5 | 13.3 | 26.8 | | 05/14/09 21:06 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 11.3 | 5.6 | 26.8 | | 05/14/09 21:06 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 18.2 | 9.1 | 26.8 | | 05/14/09 21:06 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 45.6 | 22.8 | 26.8 | | 05/14/09 21:06 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 42.9 | 21.4 | 26.8 | | 05/14/09 21:06 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 32.2 | 16.1 | 26.8 | | 05/14/09 21:06 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 32.2 | 16.1 | 26.8 | | 05/14/09 21:06 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 32.2 | 16.1 | 26.8 | | 05/14/09 21:06 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/m3 | 26.8 | 13.4 | 26.8 | | 05/14/09 21:06 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 22.0 | 11.0 | 26.8 | | 05/14/09 21:06 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 22.0 | 11.0 | 26.8 | | 05/14/09 21:06 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 21.7 | 10.9 | 26.8 | | 05/14/09 21:06 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 21.7 | 10.9 | 26.8 | | 05/14/09 21:06 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 21.7 | 10.9 | 26.8 | | 05/14/09 21:06 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 25.2 | 12.6 | 26.8 | | 05/14/09 21:06 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 24.7 | 12.3 | 26.8 | | 05/14/09 21:06 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 24.7 | 12.3 | 26.8 | | 05/14/09 21:06 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 37.5 | 18.8 | 26.8 | | 05/14/09 21:06 | 76-14-2 | |
| Ethanol | **54.7** | ug/m3 | 50.9 | 22.8 | 26.8 | | 05/14/09 21:06 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 19.6 | 9.8 | 26.8 | | 05/14/09 21:06 | 141-78-6 | |
| Ethylbenzene | ND | ug/m3 | 23.6 | 11.8 | 26.8 | | 05/14/09 21:06 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 67.0 | 33.5 | 26.8 | | 05/14/09 21:06 | 622-96-8 | |
| n-Heptane | ND | ug/m3 | 22.2 | 11.1 | 26.8 | | 05/14/09 21:06 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 59.0 | 29.5 | 26.8 | | 05/14/09 21:06 | 87-68-3 | |
| n-Hexane | ND | ug/m3 | 19.3 | 9.6 | 26.8 | | 05/14/09 21:06 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 22.2 | 11.1 | 26.8 | | 05/14/09 21:06 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 19.0 | 9.5 | 26.8 | | 05/14/09 21:06 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 22.2 | 11.1 | 26.8 | | 05/14/09 21:06 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 19.6 | 9.8 | 26.8 | | 05/14/09 21:06 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 72.4 | 36.2 | 26.8 | | 05/14/09 21:06 | 91-20-3 | |
| 2-Propanol | **217** | ug/m3 | 67.0 | 33.5 | 26.8 | | 05/14/09 21:06 | 67-63-0 | |
| Propylene | ND | ug/m3 | 9.4 | 4.7 | 26.8 | | 05/14/09 21:06 | 115-07-1 | |
| Styrene | ND | ug/m3 | 23.3 | 11.7 | 26.8 | | 05/14/09 21:06 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 37.5 | 18.8 | 26.8 | | 05/14/09 21:06 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 37.5 | 18.8 | 26.8 | | 05/14/09 21:06 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6500 Lake #1 (8')** **Lab ID: 1094372002** Collected: 05/05/09 15:30 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 16.1 | 8.0 | 26.8 | | 05/14/09 21:06 | 109-99-9 | |
| Toluene | **23.3** | ug/m3 | 20.6 | 10.3 | 26.8 | | 05/14/09 21:06 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 26.5 | 13.3 | 26.8 | | 05/14/09 21:06 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 29.5 | 14.7 | 26.8 | | 05/14/09 21:06 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 29.5 | 14.7 | 26.8 | | 05/14/09 21:06 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 29.5 | 14.7 | 26.8 | | 05/14/09 21:06 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 29.5 | 14.7 | 26.8 | | 05/14/09 21:06 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 42.9 | 21.4 | 26.8 | | 05/14/09 21:06 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 67.0 | 33.5 | 26.8 | | 05/14/09 21:06 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 67.0 | 33.5 | 26.8 | | 05/14/09 21:06 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 19.0 | 9.5 | 26.8 | | 05/14/09 21:06 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 13.9 | 7.0 | 26.8 | | 05/14/09 21:06 | 75-01-4 | |
| m&p-Xylene | ND | ug/m3 | 47.2 | 23.6 | 26.8 | | 05/14/09 21:06 | 1330-20-7 | |
| o-Xylene | ND | ug/m3 | 23.6 | 11.8 | 26.8 | | 05/14/09 21:06 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6500 Lake #2 (8')** **Lab ID: 1094372003** Collected: 05/05/09 16:05 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **21.0** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/14/09 21:37 | 67-64-1 | |
| Benzene | ND | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/14/09 21:37 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 21:37 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/14/09 21:37 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/14/09 21:37 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/14/09 21:37 | 106-99-0 | |
| 2-Butanone (MEK) | **2.3** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/14/09 21:37 | 78-93-3 | |
| Carbon disulfide | ND | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/14/09 21:37 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/14/09 21:37 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/14/09 21:37 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/14/09 21:37 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/14/09 21:37 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/14/09 21:37 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/14/09 21:37 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/14/09 21:37 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/14/09 21:37 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 21:37 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 21:37 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/14/09 21:37 | 106-46-7 | |
| Dichlorodifluoromethane | **2.5** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/14/09 21:37 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/14/09 21:37 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/14/09 21:37 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 21:37 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 21:37 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/14/09 21:37 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/14/09 21:37 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/14/09 21:37 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/14/09 21:37 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 21:37 | 76-14-2 | |
| Ethanol | **11.6** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/14/09 21:37 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/14/09 21:37 | 141-78-6 | |
| Ethylbenzene | **1.7** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/14/09 21:37 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 21:37 | 622-96-8 | |
| n-Heptane | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 21:37 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/14/09 21:37 | 87-68-3 | |
| n-Hexane | ND | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/14/09 21:37 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 21:37 | 591-78-6 | |
| Methylene Chloride | **0.96** | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/14/09 21:37 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/14/09 21:37 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/14/09 21:37 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/14/09 21:37 | 91-20-3 | |
| 2-Propanol | **73.2** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 21:37 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/14/09 21:37 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/14/09 21:37 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 21:37 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/14/09 21:37 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

**Sample: B-6500 Lake #2 (8')** **Lab ID: 1094372003** Collected: 05/05/09 16:05 Received: 05/05/09 17:20 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/14/09 21:37 | 109-99-9 | |
| Toluene | **2.8** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/14/09 21:37 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/14/09 21:37 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 21:37 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 21:37 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 21:37 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/14/09 21:37 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/14/09 21:37 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **4.9** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 21:37 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/14/09 21:37 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/14/09 21:37 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/14/09 21:37 | 75-01-4 | |
| m&p-Xylene | **3.5** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/14/09 21:37 | 1330-20-7 | |
| o-Xylene | **1.4** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/14/09 21:37 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

QC Batch: AIR/8549 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1094372001, 1094372002, 1094372003

METHOD BLANK: 620571 Matrix: Air
Associated Lab Samples: 1094372001, 1094372002, 1094372003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 05/14/09 18:04 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 05/14/09 18:04 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 05/14/09 18:04 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 05/14/09 18:04 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 05/14/09 18:04 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 18:04 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 05/14/09 18:04 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/14/09 18:04 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 05/14/09 18:04 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 18:04 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 05/14/09 18:04 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 05/14/09 18:04 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/14/09 18:04 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 05/14/09 18:04 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 18:04 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 18:04 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 05/14/09 18:04 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 05/14/09 18:04 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 05/14/09 18:04 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 05/14/09 18:04 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 05/14/09 18:04 | |
| Acetone | ug/m3 | ND | 0.48 | 05/14/09 18:04 | |
| Benzene | ug/m3 | ND | 0.65 | 05/14/09 18:04 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 05/14/09 18:04 | |
| Bromoform | ug/m3 | ND | 2.1 | 05/14/09 18:04 | |
| Bromomethane | ug/m3 | ND | 0.79 | 05/14/09 18:04 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 05/14/09 18:04 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 05/14/09 18:04 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 05/14/09 18:04 | |
| Chloroethane | ug/m3 | ND | 0.54 | 05/14/09 18:04 | |
| Chloroform | ug/m3 | ND | 0.99 | 05/14/09 18:04 | |
| Chloromethane | ug/m3 | ND | 0.42 | 05/14/09 18:04 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 18:04 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/14/09 18:04 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 05/14/09 18:04 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 05/14/09 18:04 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 05/14/09 18:04 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 05/14/09 18:04 | |
| Ethanol | ug/m3 | ND | 1.9 | 05/14/09 18:04 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 05/14/09 18:04 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 05/14/09 18:04 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 05/14/09 18:04 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 05/14/09 18:04 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

METHOD BLANK: 620571 Matrix: Air

Associated Lab Samples: 1094372001, 1094372002, 1094372003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 05/14/09 18:04 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 05/14/09 18:04 | |
| n-Heptane | ug/m3 | ND | 0.83 | 05/14/09 18:04 | |
| n-Hexane | ug/m3 | ND | 0.72 | 05/14/09 18:04 | |
| Naphthalene | ug/m3 | ND | 2.7 | 05/14/09 18:04 | |
| o-Xylene | ug/m3 | ND | 0.88 | 05/14/09 18:04 | |
| Propylene | ug/m3 | ND | 0.35 | 05/14/09 18:04 | |
| Styrene | ug/m3 | ND | 0.87 | 05/14/09 18:04 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 05/14/09 18:04 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 05/14/09 18:04 | |
| Toluene | ug/m3 | ND | 0.77 | 05/14/09 18:04 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 18:04 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/14/09 18:04 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 05/14/09 18:04 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 05/14/09 18:04 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 05/14/09 18:04 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 05/14/09 18:04 | |

LABORATORY CONTROL SAMPLE: 620572

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 54.5 | 95 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 62.8 | 88 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 48.7 | 87 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 54.9 | 72 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 33.2 | 81 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 36.5 | 90 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 59.0 | 79 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 46.0 | 93 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 73.3 | 90 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 57.7 | 92 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 39.3 | 88 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 49.2 | 97 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 48.2 | 97 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 20.7 | 91 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 58.9 | 92 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 57.8 | 92 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 28.8 | 93 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 37.6 | 89 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 20.0 | 84 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 43.4 | 87 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 37.8 | 89 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 17.5 | 72 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 29.7 | 90 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 61.3 | 90 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

LABORATORY CONTROL SAMPLE: 620572

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 89.9 | 84 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 36.2 | 91 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 34.1 | 105 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 50.9 | 79 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 44.5 | 96 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 25.0 | 94 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 47.3 | 98 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 19.1 | 91 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 37.9 | 91 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 53.3 | 110 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 37.9 | 106 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 73.8 | 81 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 45.3 | 92 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 57.1 | 80 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 16.6 | 87 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 43.2 | 116 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 46.2 | 95 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 77.3 | 73 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 85.0 | 92 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 34.6 | 94 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 25.8 | 75 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 37.0 | 86 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 39.1 | 100 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 42.9 | 85 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 41.5 | 91 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 18.8 | 101 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 39.1 | 90 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 65.3 | 91 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 15.4 | 68 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 36.0 | 90 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 38.7 | 92 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 42.7 | 87 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 60.3 | 109 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 49.2 | 88 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 34.1 | 92 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 24.3 | 91 | 57-132 | |

SAMPLE DUPLICATE: 621063

| Parameter | Units | 1094372001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

SAMPLE DUPLICATE: 621063

| Parameter | Units | 1094372001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 9.5 | 8.8 | 8 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 7.4 | 6.9 | 7 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | 890 | 777 | 14 | 25 | |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | ND | ND | | 25 | |
| Benzene | ug/m3 | 3.7 | 3.7 | 0 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.3 | 1.1 | 13 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | 1.1 | 1.0 | 4 | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 3.2 | 2.5 | 22 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 3.0 | 2.6 | 14 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 185 | 167 | 10 | 25 | E |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 5.5 | 5.3 | 3 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 20.1 | 19.0 | 5 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 1.3 | 1.3 | 4 | 25 | |
| n-Heptane | ug/m3 | 6.5 | 6.4 | 2 | 25 | |
| n-Hexane | ug/m3 | 3.7 | 4.2 | 13 | 25 | |
| Naphthalene | ug/m3 | ND | 2.3J | | 25 | |
| o-Xylene | ug/m3 | 6.5 | 6.3 | 3 | 25 | |
| Propylene | ug/m3 | 8.3 | 8.5 | 3 | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 26.3 | 25.7 | 3 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 20.0 | 19.3 | 3 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

SAMPLE DUPLICATE: 621063

| Parameter | Units | 1094372001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1094372001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1094372002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1094372003

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1094372

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094372001** | **B-6528 Lake #1 (8')** | TO-15 | AIR/8549 | | |
| **1094372002** | **B-6500 Lake #1 (8')** | TO-15 | AIR/8549 | | |
| **1094372003** | **B-6500 Lake #2 (8')** | TO-15 | AIR/8549 | | |



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Data File: \\192.168.10.12\chem\10air7.i\051409.b\13417.D
Report Date: 15-May-2009 11:14

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 0
Lab Smp Id: 1094372001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 14-MAY-2009 20:05

Client SDG: 051409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.712 | 176 | J |
| 2. | 62016-28-8 | Octane, 2,2,6-trimethyl- | 13.518 | 36.7 | NJ |
| 3. | 556-67-2 | Cyclotetrasiloxane, octamet | 13.842 | 141 | NJ |
| 4. | | Unknown | 14.259 | 23.0 | J |
| 5. | 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 15.003 | 25.7 | NJ |
| 6. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.177 | 115 | NJ |
| 7. | 17301-26-7 | Undecane, 2,9-dimethyl- | 15.449 | 21.0 | NJ |
| 8. | | Unknown | 15.557 | 73.6 | J |
| 9. | | Unknown | 15.613 | 84.2 | J |
| 10. | 62016-19-7 | Octane, 6-ethyl-2-methyl- | 15.908 | 47.8 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13417.D
Report Date: 15-May-2009 11:14

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\051409.b\13417.D
Lab Smp Id: 1094372001
Inj Date : 14-MAY-2009 20:05
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 0
Misc Info : 8549
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\051409.b\LOWTO15_134.m
Meth Date : 15-May-2009 09:05 apeterson Quant Type: ISTD
Cal Date : 14-MAY-2009 15:31 Cal File: 13408.D
Als bottle: 17
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.300 | 1678987 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 1964519 | 10.000 |

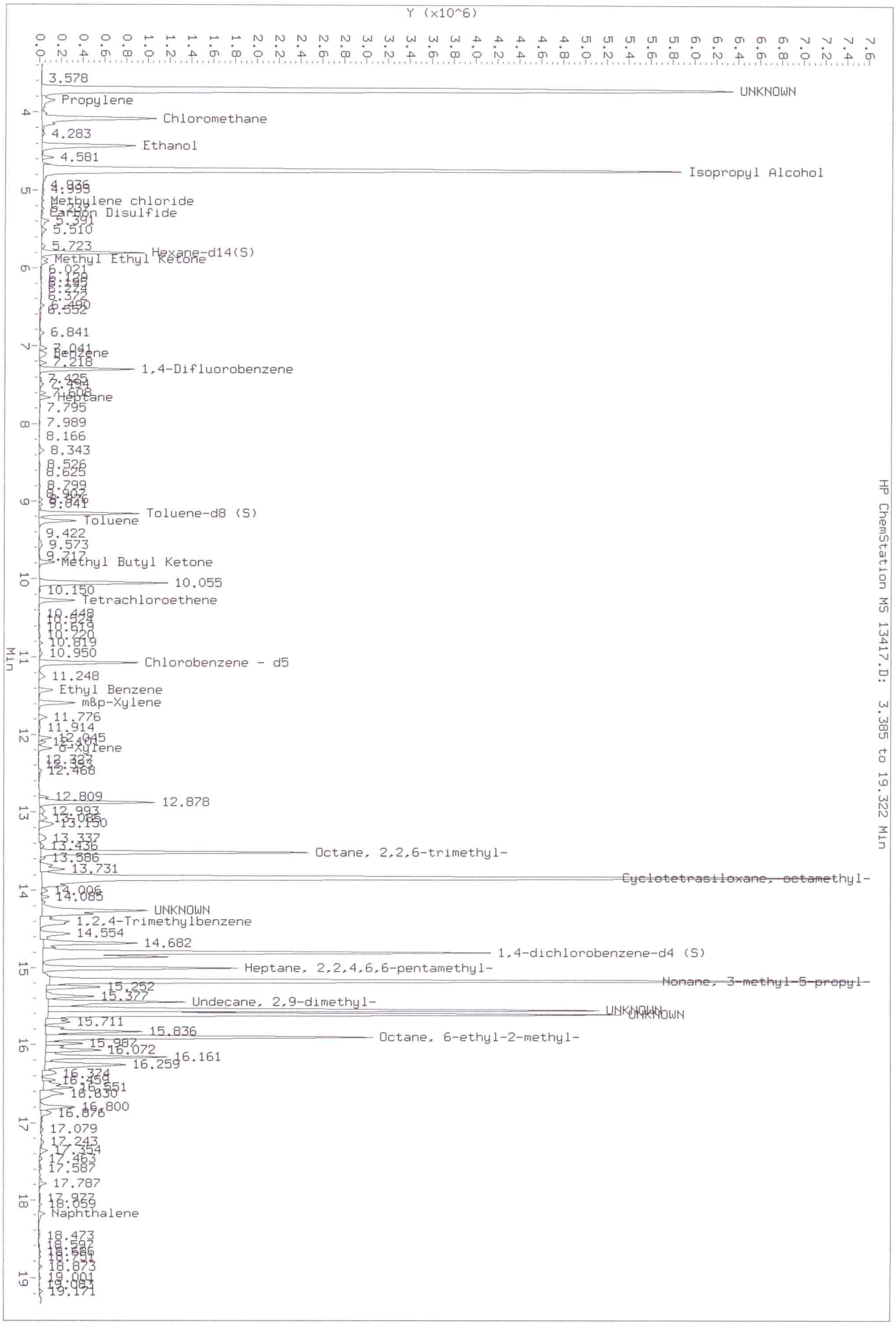
| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | | CAS #: | | |
| 3.712 | 21997260 | 131.015047 | 176 | 0 | | 0 | 35 |
| Octane, 2,2,6-trimethyl- | | | | | CAS #: 62016-28-8 | | |
| 13.518 | 5379443 | 27.3830018 | 36.7 | 72 | NBS75K.l | 11599 | 50 |
| Cyclotetrasiloxane, octamethyl- | | | | | CAS #: 556-67-2 | | |
| 13.842 | 20630026 | 105.013103 | 141 | 86 | NBS75K.l | 41966 | 50(L) |
| Unknown | | | | | CAS #: | | |
| 14.259 | 3369750 | 17.1530516 | 23.0 | 0 | | 0 | 50 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | | CAS #: 13475-82-6 | | |
| 15.003 | 3773539 | 19.2084604 | 25.7 | 78 | NBS75K.l | 68260 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13417.D
Report Date: 15-May-2009 11:14

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Nonane, 3-methyl-5-propyl- | | | | | CAS #: 31081-18-2 | | |
| 15.177 | 16810141 | 85.5687284 | 115 | 78 | NBS75K.l | 19054 | 50 |
| Undecane, 2,9-dimethyl- | | | | | CAS #: 17301-26-7 | | |
| 15.449 | 3086344 | 15.7104304 | 21.0 | 78 | NBS75K.l | 18994 | 50 |
| Unknown | | | | | CAS #: | | |
| 15.557 | 10794968 | 54.9496678 | 73.6 | 0 | | 0 | 50 |
| Unknown | | | | | CAS #: | | |
| 15.613 | 12351723 | 62.8740237 | 84.2 | 0 | | 0 | 50 |
| Octane, 6-ethyl-2-methyl- | | | | | CAS #: 62016-19-7 | | |
| 15.908 | 7010106 | 35.6835729 | 47.8 | 72 | NBS75K.l | 11609 | 50 |

QC Flag Legend

L - Operator selected an alternate library search match.


Data File: \\192.168.10.12\chem\10air7.i\051409.b\13417.D
Injection Date: 14-MAY-2009 20:05
Instrument: 10air7.i
Client Sample ID:
HP ChemStation MS 13417.D: 3.385 to 19.322 Min
Y (x10^6)
Min
3.578
UNKNOWN
Propylene
Chloromethane
4.283
Ethanol
4.581
Isopropyl Alcohol
Methylene chloride
Carbon Disulfide
5.723
Hexane-d14(S)
Methyl Ethyl Ketone
6.841
Benzene
7.218
1,4-Difluorobenzene
Heptane
7.795
7.989
8.166
8.343
8.526
8.625
8.799
9.841
Toluene-d8 (S)
Toluene
9.422
9.573
Methyl Butyl Ketone
10.055
10.150
Tetrachloroethene
10.950
Chlorobenzene - d5
11.248
Ethyl Benzene
m&p-Xylene
11.776
11.914
o-Xylene
12.468
12.809
12.878
13.337
13.436
Octane, 2,2,6-trimethyl-
13.586
13.731
Cyclotetrasiloxane, octamethyl-
14.006
14.085
UNKNOWN
1,2,4-Trimethylbenzene
14.554
14.682
1,4-dichlorobenzene-d4 (S)
Heptane, 2,2,4,6,6-pentamethyl-
Nonane, 3-methyl-5-propyl-
15.252
15.377
Undecane, 2,9-dimethyl-
UNKNOWN
15.711
15.836
Octane, 6-ethyl-2-methyl-
16.072
16.161
16.259
16.324
16.551
16.800
17.079
17.243
17.354
17.463
17.587
17.787
Naphthalene
18.473
18.873
19.001
19.171

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13419.D
Report Date: 15-May-2009 11:14

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 2
Lab Smp Id: 1094372002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 14-MAY-2009 21:06

Client SDG: 051409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.726 | 2380 | J |
| 2. | | Unknown | 13.839 | 34.8 | J |
| 3. | 100-80-1 | Benzene, 1-ethenyl-3-methyl | 14.505 | 80.0 | NJ |
| 4. | 62238-11-3 | Decane, 2,3,5-trimethyl- | 15.167 | 98.0 | NJ |
| 5. | | Unknown | 15.548 | 76.3 | J |
| 6. | | Unknown | 15.607 | 93.5 | J |
| 7. | 17301-25-6 | Undecane, 2,8-dimethyl- | 15.902 | 55.2 | NJ |
| 8. | 1195-32-0 | Benzene, 1-methyl-4-(1-meth | 16.249 | 28.5 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13419.D
Report Date: 15-May-2009 11:14

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\051409.b\13419.D
Lab Smp Id: 1094372002
Inj Date : 14-MAY-2009 21:06
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 2
Misc Info : 8549
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\051409.b\LOWTO15_134.m
Meth Date : 15-May-2009 09:05 apeterson Quant Type: ISTD
Cal Date : 14-MAY-2009 15:31 Cal File: 13408.D
Als bottle: 19
Dil Factor: 26.80000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 26.800 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

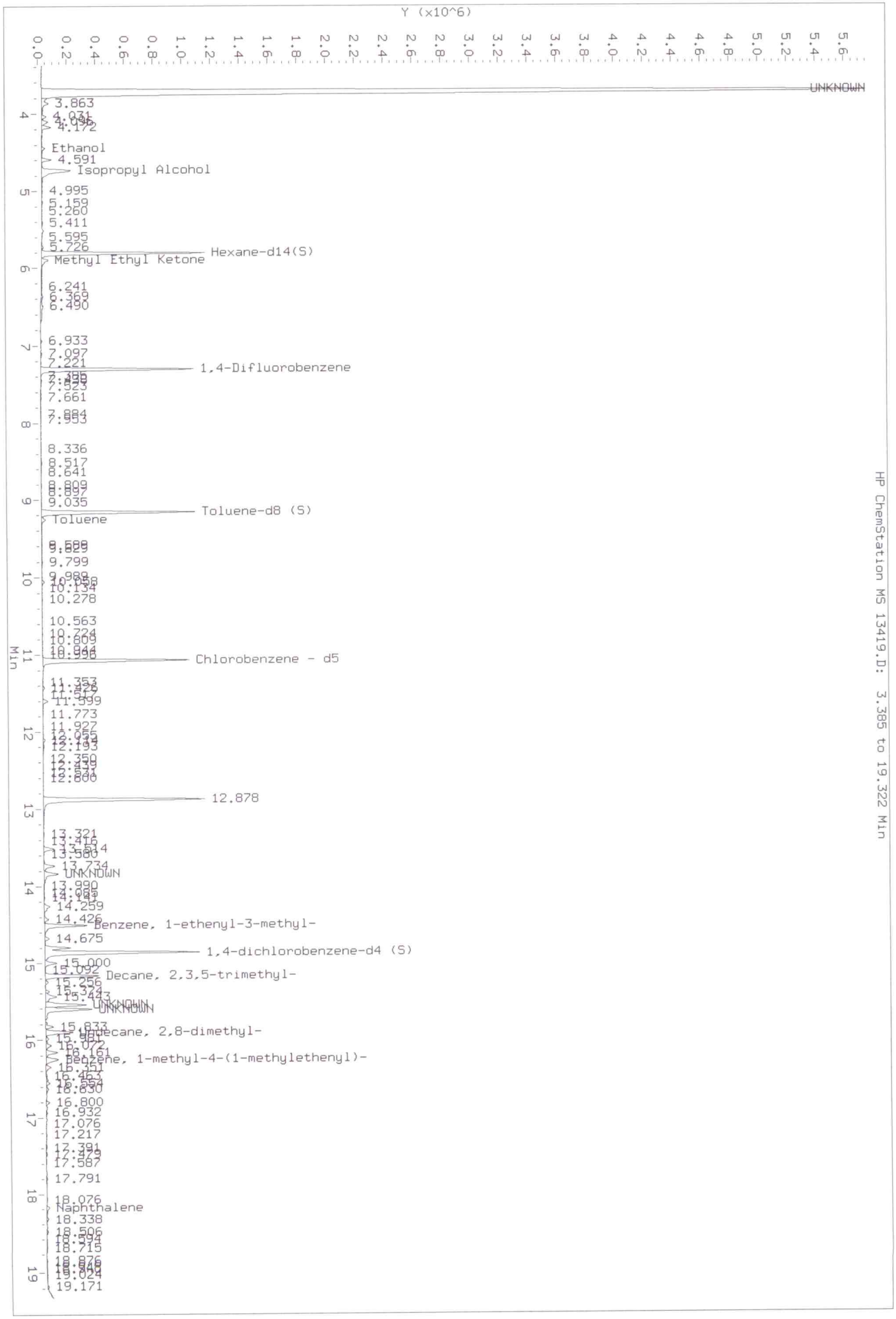
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.303 | 2084953 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 2173287 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 3.726 | 18480757 | 88.6387038 | 2380 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 13.839 | 282052 | 1.29781132 | 34.8 | 0 | | 0 | 50 |
| Benzene, 1-ethenyl-3-methyl- | | | | CAS #: 100-80-1 | | | |
| 14.505 | 648888 | 2.98574305 | 80.0 | 96 | NBS75K.1 | 3600 | 50 |
| Decane, 2,3,5-trimethyl- | | | | CAS #: 62238-11-3 | | | |
| 15.167 | 795047 | 3.65826980 | 98.0 | 78 | NBS75K.1 | 19043 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.548 | 618688 | 2.84678483 | 76.3 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13419.D
Report Date: 15-May-2009 11:14

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.607 | 758132 | 3.48841328 | 93.5 | 0 | | 0 | 50 |
| Undecane, 2,8-dimethyl- | | | | CAS #: 17301-25-6 | | | |
| 15.902 | 447304 | 2.05818884 | 55.2 | 72 | NBS75K.l | 18991 | 50 |
| Benzene, 1-methyl-4-(1-methylethenyl)- | | | | CAS #: 1195-32-0 | | | |
| 16.249 | 231517 | 1.06528581 | 28.5 | 70 | NBS75K.l | 5874 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13419.D
Injection Date: 14-MAY-2009 21:06
Instrument: 10air7.i
Client Sample ID:



Data File: \\192.168.10.12\chem\10air7.i\051409.b\13420.D
Report Date: 15-May-2009 11:16

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 3
Lab Smp Id: 1094372003
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 14-MAY-2009 21:37

Client SDG: 051409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 17312-64-0 | Undecane, 2,2-dimethyl- | 15.000 | 13.3 | NJ |
| 2. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.174 | 55.0 | NJ |
| 3. | 17302-32-8 | Nonane, 3,7-dimethyl- | 15.449 | 14.5 | NJ |
| 4. | 3522-94-9 | Hexane, 2,2,5-trimethyl- | 15.554 | 46.1 | NJ |
| 5. | | Unknown | 15.610 | 57.7 | J |
| 6. | | Unknown | 15.833 | 12.6 | J |
| 7. | 13151-34-3 | Decane, 3-methyl- | 15.905 | 39.5 | NJ |
| 8. | | Unknown | 16.072 | 10.8 | J |
| 9. | 3891-98-3 | Dodecane, 2,6,10-trimethyl- | 16.161 | 16.6 | NJ |
| 10. | 13151-34-3 | Decane, 3-methyl- | 16.259 | 17.2 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13420.D
Report Date: 15-May-2009 11:16

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\051409.b\13420.D
Lab Smp Id: 1094372003
Inj Date : 14-MAY-2009 21:37
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 3
Misc Info : 8549
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\051409.b\LOWTO15_134.m
Meth Date : 15-May-2009 09:05 apeterson Quant Type: ISTD
Cal Date : 14-MAY-2009 15:31 Cal File: 13408.D
Als bottle: 20
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

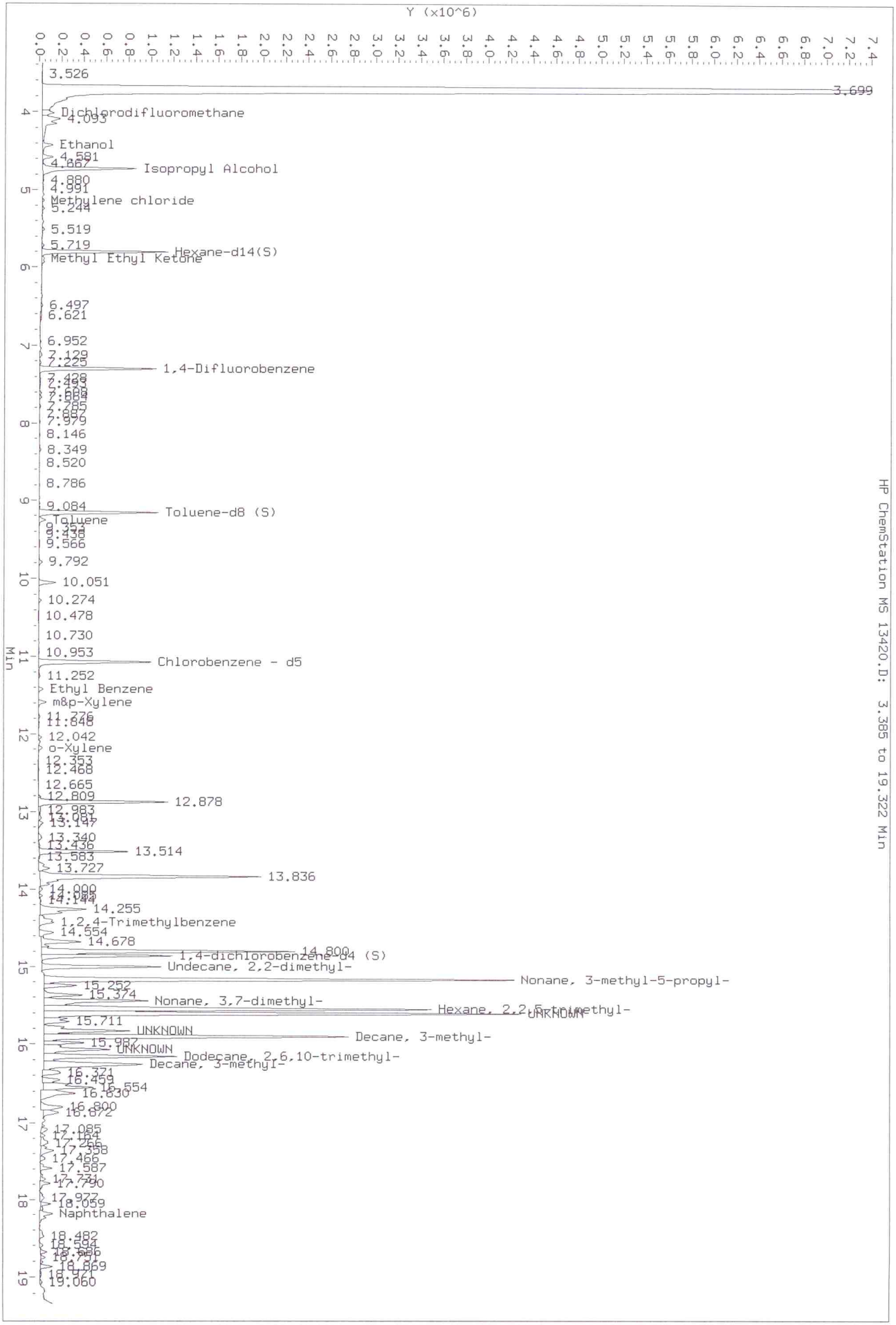
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 50 Chlorobenzene - d5 | 11.071 | 2196190 | 10.000 |

| | | CONCENTRATIONS | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Undecane, 2,2-dimethyl- | | | | CAS #: 17312-64-0 | | | |
| 15.000 | 2186037 | 9.95376894 | 13.3 | 78 | NBS75K.l | 19038 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.174 | 9020091 | 41.0715326 | 55.0 | 78 | NBS75K.l | 19054 | 50 |
| Nonane, 3,7-dimethyl- | | | | CAS #: 17302-32-8 | | | |
| 15.449 | 2382099 | 10.8465054 | 14.5 | 87 | NBS75K.l | 11601 | 50 |
| Hexane, 2,2,5-trimethyl- | | | | CAS #: 3522-94-9 | | | |
| 15.554 | 7551907 | 34.3863940 | 46.1 | 72 | NBS75K.l | 5149 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 9455313 | 43.0532482 | 57.7 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.833 | 2071136 | 9.43058577 | 12.6 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13420.D
Report Date: 15-May-2009 11:16

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Decane, 3-methyl- | | | | CAS #: 13151-34-3 | | | |
| 15.905 | 6469365 | 29.4572110 | 39.5 | 72 | NBS75K.l | 67315 | 50 |
| Unknown | | | | CAS #: | | | |
| 16.072 | 1768568 | 8.05288910 | 10.8 | 0 | | 0 | 50 |
| Dodecane, 2,6,10-trimethyl- | | | | CAS #: 3891-98-3 | | | |
| 16.161 | 2712923 | 12.3528589 | 16.6 | 72 | NBS75K.l | 70270 | 50 |
| Decane, 3-methyl- | | | | CAS #: 13151-34-3 | | | |
| 16.259 | 2820746 | 12.8438141 | 17.2 | 83 | NBS75K.l | 11604 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051409.b\13420.D
Injection Date: 14-MAY-2009 21:37
Instrument: 10air7.i
Client Sample ID:



* MPCA

1094372

STS | AECOM

# Chain of Custody Record

№ 4217

1 of 1

Contact Person: Peter Rzepecki
Phone No.: 763 8524245 Office: Minneapolis
Project No.: 04660024 PO No.:
Project Name: St. Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4217 Through 4217
Laboratory: Pace
Contact Person: Carol Dawn
Phone No.: 612 607 6436
Results Due: STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6528 Lake #1 (5') | 5/5 | 1102 | X | | 1 | AIR | | X | 2 | | | | TO-15 | # 868 1094372001 |
| B-6500 Lake #1 (5') | ↓ | 1530 | X | | 1 | ↓ | | X | 2 | | | | ↓ | 236 002 |
| B-6500 Lake #2 (5') | ↓ | 1605 | X | | 1 | ↓ | | X | | | | | ↓ | 433 003 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: JASON ROWE | Date 5/5/09 | Time See Above | Delivery by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date 5/5/09 | Time 1720 | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☒ N/A T= AMB.

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: STS/AECOM Project # 1094372

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other _____ Temp Blank: Yes ____ No X

Thermometer Used ~~80344042, 179425~~ Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature AmB Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5-6-09 [illegible]

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☐Yes ☒No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AQ (CAN) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 3 CANS

Project Manager Review: OAP Date: 5-6-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

5/6/09



ALLC003rev.5, 5Aug2008

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 20, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 06, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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(612)607-1700

# CERTIFICATIONS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11887
New York Certification #: 11888
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094467001** | **B-6500LAKE #2(32')** | Solid | 05/06/09 09:25 | 05/06/09 17:18 |
| **1094467002** | **B-6500LAKE #3(40')** | Solid | 05/06/09 13:06 | 05/06/09 17:18 |
| **1094467003** | **B-6504WALKER #1(40')** | Solid | 05/06/09 16:21 | 05/06/09 17:18 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1094467001** | **B-6500LAKE #2(32')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094467002** | **B-6500LAKE #3(40')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094467003** | **B-6504WALKER #1(40')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** May 20, 2009

**General Information:**
3 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** May 20, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4427

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6500LAKE #2(32')** **Lab ID: 1094467001** Collected: 05/06/09 09:25 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **1.1** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 16.4 | 5.4 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.1 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.1 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.1 | 0.89 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.1 | 0.29 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.1 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.1 | 0.92 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.1 | 1.5 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.1 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.1 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.1 | 0.28 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.1 | 0.17 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.1 | 0.70 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.1 | 0.99 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.1 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.1 | 0.27 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.1 | 0.56 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.1 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.1 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.1 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.1 | 0.86 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.1 | 0.93 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6500LAKE #2(32')** **Lab ID: 1094467001** Collected: 05/06/09 09:25 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.1 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.1 | 0.33 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.1 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.1 | 0.095 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.36 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.1 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.1 | 0.96 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.1 | 0.33 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.1 | 0.72 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.1 | 0.88 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.1 | 0.12 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.1 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.2 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.1 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 95-47-6 | |
| Dibromofluoromethane (S) | 90 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 1868-53-7 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 95 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:04 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6500LAKE #3(40')** **Lab ID: 1094467002** Collected: 05/06/09 13:06 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **13.7** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 15.4 | 5.1 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 3.9 | 1.3 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 107-05-1 | |
| Benzene | ND | ug/kg | 3.9 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.9 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.9 | 0.84 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.9 | 0.27 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.9 | 0.76 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 3.9 | 0.87 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 3.9 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.9 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.9 | 0.39 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.9 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.9 | 0.61 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.9 | 0.16 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 3.9 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 3.9 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.9 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.9 | 0.94 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.9 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.9 | 0.26 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 3.9 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.9 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.9 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.9 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.77 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 3.9 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.9 | 0.49 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.9 | 0.62 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.9 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.9 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 3.9 | 0.88 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.9 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6500LAKE #3(40')** **Lab ID: 1094467002** Collected: 05/06/09 13:06 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.9 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.9 | 0.48 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 3.9 | 0.31 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 3.9 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.9 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.9 | 0.48 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.9 | 0.090 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.34 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 3.9 | 0.71 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 3.9 | 0.91 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 109-99-9 | |
| Toluene | ND | ug/kg | 3.9 | 0.65 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.9 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.9 | 0.31 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.9 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.9 | 0.44 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.9 | 0.68 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.9 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 3.9 | 0.83 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.9 | 0.12 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 3.9 | 0.67 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.7 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.9 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 95-47-6 | |
| Dibromofluoromethane (S) | 86 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 92 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:27 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6504WALKER #1(40')** **Lab ID: 1094467003** Collected: 05/06/09 16:21 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **1.7** | % | 0.10 | 0.10 | 1 | | 05/11/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 15.1 | 5.0 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 3.8 | 1.2 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 107-05-1 | |
| Benzene | ND | ug/kg | 3.8 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.8 | 0.39 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.8 | 0.82 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.8 | 0.27 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.8 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 3.8 | 0.85 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 3.8 | 1.4 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.8 | 0.50 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.8 | 0.38 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.8 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.8 | 0.16 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 3.8 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.8 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 3.8 | 0.64 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.8 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.8 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.8 | 0.92 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.8 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.8 | 0.46 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.8 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.8 | 0.25 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.8 | 0.19 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 3.8 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.8 | 0.52 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.8 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.8 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.8 | 0.75 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.8 | 0.57 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 3.8 | 0.51 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.8 | 0.48 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.8 | 0.60 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.8 | 0.56 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.8 | 0.80 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.8 | 0.41 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.8 | 0.40 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 3.8 | 0.86 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.8 | 0.59 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

**Sample: B-6504WALKER #1(40')** **Lab ID: 1094467003** Collected: 05/06/09 16:21 Received: 05/06/09 17:18 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.8 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.8 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 3.8 | 0.31 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 3.8 | 0.64 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.8 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.8 | 0.47 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.8 | 0.088 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.8 | 0.33 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.8 | 0.56 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 79-34-5 | |
| Tetrachloroethene | **3.7** | ug/kg | 3.8 | 0.69 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 3.8 | 0.89 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 109-99-9 | |
| Toluene | ND | ug/kg | 3.8 | 0.64 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.8 | 0.53 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.8 | 0.30 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.8 | 0.58 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.8 | 0.54 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.8 | 0.43 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.8 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.8 | 1.1 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 3.8 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.8 | 0.11 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.8 | 0.20 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 3.8 | 0.66 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.6 | 0.81 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.8 | 0.42 | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 95-47-6 | |
| Dibromofluoromethane (S) | 89 | % | 63-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | 05/11/09 06:29 | 05/11/09 12:51 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

QC Batch: MSV/4427 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1094467001, 1094467002, 1094467003

METHOD BLANK: 156233 Matrix: Solid
Associated Lab Samples: 1094467001, 1094467002, 1094467003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Acetone | ug/kg | ND | 20.0 | 05/11/09 08:56 | |
| Allyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Benzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromoform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Bromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloroform | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Chloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dibromomethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

METHOD BLANK: 156233 Matrix: Solid

Associated Lab Samples: 1094467001, 1094467002, 1094467003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 05/11/09 08:56 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Naphthalene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| o-Xylene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Styrene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Toluene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichloroethene | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 05/11/09 08:56 | |
| 4-Bromofluorobenzene (S) | % | 96 | 70-130 | 05/11/09 08:56 | |
| Dibromofluoromethane (S) | % | 84 | 63-130 | 05/11/09 08:56 | |
| Toluene-d8 (S) | % | 102 | 70-130 | 05/11/09 08:56 | |

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 44.6 | 45.7 | 89 | 91 | 70-130 | 2 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 40.8 | 41.9 | 82 | 84 | 70-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 47.8 | 48.5 | 96 | 97 | 70-130 | 1 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 39.9 | 40.9 | 80 | 82 | 67-137 | 3 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 50.1 | 51.5 | 100 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 39.7 | 39.6 | 79 | 79 | 63-134 | .2 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 44.4 | 44.1 | 89 | 88 | 70-130 | .6 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 35.6 | 36.0 | 71 | 72 | 35-150 | 1 | 42 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 39.2 | 39.2 | 78 | 78 | 50-150 | .06 | 20 | |
| Acetone | ug/kg | 50 | 28.3 | 31.9 | 57 | 64 | 10-197 | 12 | 85 | |
| Benzene | ug/kg | 50 | 43.8 | 44.9 | 88 | 90 | 70-130 | 2 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 47.3 | 48.6 | 95 | 97 | 70-130 | 3 | 20 | |
| Bromoform | ug/kg | 50 | 52.5 | 51.3 | 105 | 103 | 64-137 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

LABORATORY CONTROL SAMPLE & LCSD: 156234 156235

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 52.6 | 51.9 | 105 | 104 | 66-136 | 1 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 46.1 | 47.8 | 92 | 96 | 70-130 | 4 | 20 | |
| Chlorobenzene | ug/kg | 50 | 53.9 | 53.2 | 108 | 106 | 70-130 | 1 | 20 | |
| Chloroethane | ug/kg | 50 | 47.2 | 47.6 | 94 | 95 | 59-140 | .7 | 20 | |
| Chloroform | ug/kg | 50 | 43.2 | 42.9 | 86 | 86 | 69-130 | .8 | 20 | |
| Chloromethane | ug/kg | 50 | 38.2 | 39.9 | 76 | 80 | 27-141 | 4 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 44.4 | 45.4 | 89 | 91 | 70-130 | 2 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 47.8 | 48.1 | 96 | 96 | 70-130 | .5 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 48.9 | 48.0 | 98 | 96 | 70-130 | 2 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.0 | 52.1 | 104 | 104 | 70-130 | .09 | 20 | |
| m&p-Xylene | ug/kg | 100 | 109 | 110 | 109 | 110 | 70-130 | 1 | 20 | |
| Methylene Chloride | ug/kg | 50 | 43.2 | 44.8 | 86 | 90 | 70-130 | 4 | 20 | |
| o-Xylene | ug/kg | 50 | 52.8 | 53.1 | 106 | 106 | 70-130 | .5 | 20 | |
| Styrene | ug/kg | 50 | 49.3 | 50.1 | 99 | 100 | 70-130 | 2 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.1 | 57.2 | 112 | 114 | 67-139 | 2 | 20 | |
| Toluene | ug/kg | 50 | 52.3 | 52.8 | 105 | 106 | 70-130 | 1 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 44.9 | 46.1 | 90 | 92 | 70-130 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 47.1 | 46.9 | 94 | 94 | 70-130 | .3 | 20 | |
| Trichloroethene | ug/kg | 50 | 51.9 | 53.1 | 104 | 106 | 70-130 | 2 | 20 | |
| Vinyl chloride | ug/kg | 50 | 44.0 | 45.7 | 88 | 91 | 65-142 | 4 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 95 | 94 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | 84 | 82 | 63-130 | | | |
| Toluene-d8 (S) | % | | | | 104 | 102 | 70-130 | | | |



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## QUALITY CONTROL DATA

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

QC Batch: MPRP/15647 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1094467001, 1094467002, 1094467003

SAMPLE DUPLICATE: 618997

| Parameter | Units | 1094596007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 18.5 | 19.0 | 2 | 30 | |

SAMPLE DUPLICATE: 618998

| Parameter | Units | 1094458001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 0.13 | 0.12 | 7 | 30 | |



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# QUALIFIERS

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4427

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST. Louis Park
Pace Project No.: 1094467

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094467001** | **B-6500LAKE #2(32')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094467002** | **B-6500LAKE #3(40')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094467003** | **B-6504WALKER #1(40')** | EPA 8260 | MSV/4402 | EPA 8260 | MSV/4427 |
| **1094467001** | **B-6500LAKE #2(32')** | % Moisture | MPRP/15647 | | |
| **1094467002** | **B-6500LAKE #3(40')** | % Moisture | MPRP/15647 | | |
| **1094467003** | **B-6504WALKER #1(40')** | % Moisture | MPRP/15647 | | |



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*MPCA

# Chain of Custody Record

*Short hold Time

№ 4218

STS | AECOM

1094467

Contact Person: Peter Rzepecki
Phone No. 763 552 4245 Office: Minneapolis
Project No. 09660034 PO No.
Project Name: ST. Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4218 Through 4218
Laboratory: Pace
Contact Person: Carol Davy
Phone No. 612 607 6436
Results Due: STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6500Lake #2(B-2)5/6 | | 925 | X | | 4 | Soil | 3 | 1 | <1 | | | | Terracon VOCs (8260) | 001 |
| B-6500Lake #3(40) | ↓ | 1306 | X | | 4 | ↓ | 3 | 1 | 1 | | | | ↓ | 002 |
| B-6504 Walker #1(40) | | 1641 | | | 4 | ↓ | 3 | 1 | <1 | | | | ↓ | 003 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Jason Rowe | Date 5/6/09 | Time See Above | Delivery by: | Date | Time |
| Received by: | Date | Time | Relinquished by: Jason Rowe | Date 5/6/09 | Time 7:20 |
| Received by: Pace | Date 5-6-09 | Time 17:18 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

60/9/S

Pace Analytical

# Sample Condition Upon Receipt

Client Name: STS/AECOM Project # 1094467

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Foam Temp Blank: Yes ✓ No _____

Thermometer Used ~~80344042~~ 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 5.2°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: SG 5-6-09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) | ☑Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CAD Date: 5-7-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)



F-ALLC003rev.5, 5Aug2008

# Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 1094467 **Workorder Name:** 04660024 ST. Louis Park **Owner Received Date:** 5/6/2009 **Results Requested By:** 5/20/2009

**Report To**

Carol Davy
Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone (612)607-1700
Fax (612)607-6444

**Subcontract To**

Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

**Requested Analysis**

| Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: Unpreserved | Preserved Containers: MeOH | Preserved Containers | Preserved Containers | Preserved Containers | Preserved Containers | Low level 8260 | | | | | | | | | | | | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | B-6500LAKE #2(32') 001 | 5/6/2009 09:25 | 1094467001 | Solid | 2 | 1 | | | | | X | | | | | | | | | | | | 3-40ml EEF |
| 2 | B-6500LAKE #3(40') 002 | 5/6/2009 13:06 | 1094467002 | Solid | 2 | 1 | | | | | X | | | | | | | | | | | | |
| 3 | B-6504WALKER #1(40') 003 | 5/6/2009 16:21 | 1094467003 | Solid | 2 | 1 | | | | | X | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Carol Davy Pace Anl | 5/7/09 0900 | Walt Co | |
| 2 | Walt Co | 5/8/09 1012 | [illegible] | 5/8/09 1012 |
| 3 | | | | |

**Comments**

4017040

**Cooler Temperature on Receipt** ____ °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

Pace Analytical

# Sample Condition Upon Receipt

4017040

Client Name: STS/Accom Project # 1094467

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Foam Temp Blank: Yes ✓ No

Thermometer Used 80344042 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 5.2°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5-6-09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: GW | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☑Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: (AD) Date: 5-7-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)



FRM-LOG-rev.5, 5Aug2008

# Sample Condition Upon Receipt

Pace Analytical

Client Name: PATE-MN Project # 40170470

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other Walter

Tracking #:

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals Intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature DRY ICE Biological Tissue is Frozen: Yes No DRY ICE

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/8/09 AB

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☒No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. 5/20/09 |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: S | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** **Date:** 5/8/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 20, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 06, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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## CERTIFICATIONS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094469001** | **B-6500 LAKE#3 (8')** | Air | 05/06/09 11:44 | 05/06/09 17:18 |
| **1094469002** | **B6504 WALKER#1 (8')** | Air | 05/06/09 15:15 | 05/06/09 17:18 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1094469001** | **B-6500 LAKE#3 (8')** | TO-15 | CJR | 60 |
| **1094469002** | **B6504 WALKER#1 (8')** | TO-15 | CJR | 60 |



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# PROJECT NARRATIVE

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 20, 2009

**General Information:**
2 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: AIR/8553

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- B-6500 LAKE#3 (8') (Lab ID: 1094469001)
  - Hexachloro-1,3-butadiene
- B6504 WALKER#1 (8') (Lab ID: 1094469002)
  - Hexachloro-1,3-butadiene
- LCS (Lab ID: 620686)
  - Hexachloro-1,3-butadiene

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8553

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

- LCS (Lab ID: 620686)
  - Tetrahydrofuran

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 620686)
  - cis-1,3-Dichloropropene

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 20, 2009

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- B-6500 LAKE#3 (8') (Lab ID: 1094469001)
- B6504 WALKER#1 (8') (Lab ID: 1094469002)

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Sample: B-6500 LAKE#3 (8')** **Lab ID: 1094469001** Collected: 05/06/09 11:44 Received: 05/06/09 17:18 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **27.3** | ug/m3 | 0.76 | 0.38 | 1.59 | | 05/15/09 01:33 | 67-64-1 | |
| Benzene | **4.0** | ug/m3 | 1.0 | 0.52 | 1.59 | | 05/15/09 01:33 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 2.2 | 1.1 | 1.59 | | 05/15/09 01:33 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 3.3 | 1.7 | 1.59 | | 05/15/09 01:33 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.3 | 0.63 | 1.59 | | 05/15/09 01:33 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.72 | 0.36 | 1.59 | | 05/15/09 01:33 | 106-99-0 | |
| 2-Butanone (MEK) | **6.4** | ug/m3 | 0.95 | 0.48 | 1.59 | | 05/15/09 01:33 | 78-93-3 | |
| Carbon disulfide | **1.6** | ug/m3 | 1.0 | 0.50 | 1.59 | | 05/15/09 01:33 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 2.1 | 1.0 | 1.59 | | 05/15/09 01:33 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.5 | 0.75 | 1.59 | | 05/15/09 01:33 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.86 | 0.43 | 1.59 | | 05/15/09 01:33 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.6 | 0.79 | 1.59 | | 05/15/09 01:33 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.67 | 0.33 | 1.59 | | 05/15/09 01:33 | 74-87-3 | |
| Cyclohexane | **2.9** | ug/m3 | 1.1 | 0.54 | 1.59 | | 05/15/09 01:33 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.7 | 1.4 | 1.59 | | 05/15/09 01:33 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.5 | 1.3 | 1.59 | | 05/15/09 01:33 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.9 | 0.95 | 1.59 | | 05/15/09 01:33 | 95-50-1 | |
| 1,3-Dichlorobenzene | **5.9** | ug/m3 | 1.9 | 0.95 | 1.59 | | 05/15/09 01:33 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.9 | 0.95 | 1.59 | | 05/15/09 01:33 | 106-46-7 | |
| Dichlorodifluoromethane | **3.2** | ug/m3 | 1.6 | 0.80 | 1.59 | | 05/15/09 01:33 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.3 | 0.65 | 1.59 | | 05/15/09 01:33 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.3 | 0.65 | 1.59 | | 05/15/09 01:33 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.3 | 0.64 | 1.59 | | 05/15/09 01:33 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.3 | 0.64 | 1.59 | | 05/15/09 01:33 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.3 | 0.64 | 1.59 | | 05/15/09 01:33 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.5 | 0.75 | 1.59 | | 05/15/09 01:33 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.5 | 0.73 | 1.59 | | 05/15/09 01:33 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.5 | 0.73 | 1.59 | | 05/15/09 01:33 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 2.2 | 1.1 | 1.59 | | 05/15/09 01:33 | 76-14-2 | |
| Ethanol | **3.9** | ug/m3 | 3.0 | 1.4 | 1.59 | | 05/15/09 01:33 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 1.2 | 0.58 | 1.59 | | 05/15/09 01:33 | 141-78-6 | |
| Ethylbenzene | **10.9** | ug/m3 | 1.4 | 0.70 | 1.59 | | 05/15/09 01:33 | 100-41-4 | |
| 4-Ethyltoluene | **4.0** | ug/m3 | 4.0 | 2.0 | 1.59 | | 05/15/09 01:33 | 622-96-8 | |
| n-Heptane | **4.3** | ug/m3 | 1.3 | 0.66 | 1.59 | | 05/15/09 01:33 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 3.5 | 1.7 | 1.59 | | 05/15/09 01:33 | 87-68-3 | SS |
| n-Hexane | **6.0** | ug/m3 | 1.1 | 0.57 | 1.59 | | 05/15/09 01:33 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.3 | 0.66 | 1.59 | | 05/15/09 01:33 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 1.1 | 0.56 | 1.59 | | 05/15/09 01:33 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.3 | 0.66 | 1.59 | | 05/15/09 01:33 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 1.2 | 0.58 | 1.59 | | 05/15/09 01:33 | 1634-04-4 | |
| Naphthalene | **6.3** | ug/m3 | 4.3 | 2.1 | 1.59 | | 05/15/09 01:33 | 91-20-3 | |
| 2-Propanol | **11.0** | ug/m3 | 4.0 | 2.0 | 1.59 | | 05/15/09 01:33 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.56 | 0.28 | 1.59 | | 05/15/09 01:33 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.4 | 0.69 | 1.59 | | 05/15/09 01:33 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 2.2 | 1.1 | 1.59 | | 05/15/09 01:33 | 79-34-5 | |
| Tetrachloroethene | ND | ug/m3 | 2.2 | 1.1 | 1.59 | | 05/15/09 01:33 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Sample: B-6500 LAKE#3 (8')** **Lab ID: 1094469001** Collected: 05/06/09 11:44 Received: 05/06/09 17:18 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.95 | 0.48 | 1.59 | | 05/15/09 01:33 | 109-99-9 | L2 |
| Toluene | **12.5** | ug/m3 | 1.2 | 0.61 | 1.59 | | 05/15/09 01:33 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | **6.5** | ug/m3 | 1.6 | 0.79 | 1.59 | | 05/15/09 01:33 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.7 | 0.87 | 1.59 | | 05/15/09 01:33 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.7 | 0.87 | 1.59 | | 05/15/09 01:33 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.7 | 0.87 | 1.59 | | 05/15/09 01:33 | 79-01-6 | |
| Trichlorofluoromethane | **2.0** | ug/m3 | 1.7 | 0.87 | 1.59 | | 05/15/09 01:33 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.5 | 1.3 | 1.59 | | 05/15/09 01:33 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **10.7** | ug/m3 | 4.0 | 2.0 | 1.59 | | 05/15/09 01:33 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 4.0 | 2.0 | 1.59 | | 05/15/09 01:33 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 1.1 | 0.56 | 1.59 | | 05/15/09 01:33 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.83 | 0.41 | 1.59 | | 05/15/09 01:33 | 75-01-4 | |
| m&p-Xylene | **10.6** | ug/m3 | 2.8 | 1.4 | 1.59 | | 05/15/09 01:33 | 1330-20-7 | |
| o-Xylene | **4.0** | ug/m3 | 1.4 | 0.70 | 1.59 | | 05/15/09 01:33 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Sample: B6504 WALKER#1 (8')** **Lab ID: 1094469002** Collected: 05/06/09 15:15 Received: 05/06/09 17:18 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **20.6** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/15/09 02:38 | 67-64-1 | |
| Benzene | ND | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/15/09 02:38 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/15/09 02:38 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/15/09 02:38 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/15/09 02:38 | 74-83-9 | |
| 1,3-Butadiene | **1.5** | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/15/09 02:38 | 106-99-0 | |
| 2-Butanone (MEK) | **4.2** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/15/09 02:38 | 78-93-3 | |
| Carbon disulfide | ND | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/15/09 02:38 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/15/09 02:38 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/15/09 02:38 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/15/09 02:38 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/15/09 02:38 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/15/09 02:38 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/15/09 02:38 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/15/09 02:38 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/15/09 02:38 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/15/09 02:38 | 95-50-1 | |
| 1,3-Dichlorobenzene | **10.2** | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/15/09 02:38 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/15/09 02:38 | 106-46-7 | |
| Dichlorodifluoromethane | **1.6** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/15/09 02:38 | 75-71-8 | |
| 1,1-Dichloroethane | **1.2** | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/15/09 02:38 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/15/09 02:38 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/15/09 02:38 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/15/09 02:38 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/15/09 02:38 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/15/09 02:38 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/15/09 02:38 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/15/09 02:38 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/15/09 02:38 | 76-14-2 | |
| Ethanol | **4.5** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/15/09 02:38 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/15/09 02:38 | 141-78-6 | |
| Ethylbenzene | **1.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/15/09 02:38 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/15/09 02:38 | 622-96-8 | |
| n-Heptane | **1.1** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/15/09 02:38 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/15/09 02:38 | 87-68-3 | SS |
| n-Hexane | ND | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/15/09 02:38 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/15/09 02:38 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/15/09 02:38 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/15/09 02:38 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/15/09 02:38 | 1634-04-4 | |
| Naphthalene | **4.6** | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/15/09 02:38 | 91-20-3 | |
| 2-Propanol | **16.1** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/15/09 02:38 | 67-63-0 | |
| Propylene | **3.7** | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/15/09 02:38 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/15/09 02:38 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/15/09 02:38 | 79-34-5 | |
| Tetrachloroethene | **165** | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/15/09 02:38 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

**Sample: B6504 WALKER#1 (8')** **Lab ID: 1094469002** Collected: 05/06/09 15:15 Received: 05/06/09 17:18 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/15/09 02:38 | 109-99-9 | L2 |
| Toluene | **3.0** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/15/09 02:38 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | **5.5** | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/15/09 02:38 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/15/09 02:38 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/15/09 02:38 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/15/09 02:38 | 79-01-6 | |
| Trichlorofluoromethane | **1.5** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/15/09 02:38 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/15/09 02:38 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **6.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/15/09 02:38 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/15/09 02:38 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/15/09 02:38 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/15/09 02:38 | 75-01-4 | |
| m&p-Xylene | **5.3** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/15/09 02:38 | 1330-20-7 | |
| o-Xylene | **2.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/15/09 02:38 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

QC Batch: AIR/8553 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1094469001, 1094469002

METHOD BLANK: 620685 | Matrix: Air
Associated Lab Samples: 1094469001, 1094469002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 05/14/09 21:44 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 05/14/09 21:44 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 05/14/09 21:44 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 05/14/09 21:44 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 05/14/09 21:44 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 21:44 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 05/14/09 21:44 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/14/09 21:44 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 05/14/09 21:44 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 21:44 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 05/14/09 21:44 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 05/14/09 21:44 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/14/09 21:44 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 05/14/09 21:44 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 21:44 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/14/09 21:44 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 05/14/09 21:44 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 05/14/09 21:44 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 05/14/09 21:44 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 05/14/09 21:44 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 05/14/09 21:44 | |
| Acetone | ug/m3 | ND | 0.48 | 05/14/09 21:44 | |
| Benzene | ug/m3 | ND | 0.65 | 05/14/09 21:44 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 05/14/09 21:44 | |
| Bromoform | ug/m3 | ND | 2.1 | 05/14/09 21:44 | |
| Bromomethane | ug/m3 | ND | 0.79 | 05/14/09 21:44 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 05/14/09 21:44 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 05/14/09 21:44 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 05/14/09 21:44 | |
| Chloroethane | ug/m3 | ND | 0.54 | 05/14/09 21:44 | |
| Chloroform | ug/m3 | ND | 0.99 | 05/14/09 21:44 | |
| Chloromethane | ug/m3 | ND | 0.42 | 05/14/09 21:44 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 21:44 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/14/09 21:44 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 05/14/09 21:44 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 05/14/09 21:44 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 05/14/09 21:44 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 05/14/09 21:44 | |
| Ethanol | ug/m3 | ND | 1.9 | 05/14/09 21:44 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 05/14/09 21:44 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 05/14/09 21:44 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 05/14/09 21:44 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 05/14/09 21:44 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

METHOD BLANK: 620685 Matrix: Air

Associated Lab Samples: 1094469001, 1094469002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 05/14/09 21:44 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 05/14/09 21:44 | |
| n-Heptane | ug/m3 | ND | 0.83 | 05/14/09 21:44 | |
| n-Hexane | ug/m3 | ND | 0.72 | 05/14/09 21:44 | |
| Naphthalene | ug/m3 | ND | 2.7 | 05/14/09 21:44 | |
| o-Xylene | ug/m3 | ND | 0.88 | 05/14/09 21:44 | |
| Propylene | ug/m3 | ND | 0.35 | 05/14/09 21:44 | |
| Styrene | ug/m3 | ND | 0.87 | 05/14/09 21:44 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 05/14/09 21:44 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 05/14/09 21:44 | |
| Toluene | ug/m3 | ND | 0.77 | 05/14/09 21:44 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/14/09 21:44 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/14/09 21:44 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 05/14/09 21:44 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 05/14/09 21:44 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 05/14/09 21:44 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 05/14/09 21:44 | |

LABORATORY CONTROL SAMPLE: 620686

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 54.1 | 95 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 71.8 | 101 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 53.5 | 95 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 57.7 | 76 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 37.3 | 91 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 40.5 | 101 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 61.5 | 82 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 50.0 | 101 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 85.5 | 105 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 61.9 | 99 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 39.8 | 89 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 47.0 | 93 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 53.1 | 107 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 21.7 | 96 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 61.1 | 95 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 79.1 | 126 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 24.2 | 78 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 46.0 | 109 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 15.0 | 63 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 45.4 | 91 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 44.9 | 106 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 18.6 | 77 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 29.4 | 90 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 70.7 | 104 | 53-130 | |



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Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

LABORATORY CONTROL SAMPLE: 620686

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 110 | 103 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 37.5 | 94 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 38.6 | 118 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 60.6 | 94 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 51.7 | 112 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 26.5 | 100 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 38.0 | 78 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 19.4 | 93 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 31.7 | 76 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 67.3 | 139 | 62-135 | L3 |
| Cyclohexane | ug/m3 | 35.7 | 35.6 | 100 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 85.8 | 94 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 47.5 | 96 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 58.7 | 83 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 18.7 | 98 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 33.4 | 89 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 57.3 | 118 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 35.5 | 33 | 30-150 | SS |
| m&p-Xylene | ug/m3 | 92.7 | 109 | 118 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 40.6 | 111 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 23.2 | 67 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 39.9 | 93 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 33.6 | 86 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 28.7 | 57 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 54.6 | 120 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 16.9 | 91 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 42.3 | 98 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 72.8 | 102 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 10.6 | 47 | 67-134 | L2 |
| Toluene | ug/m3 | 39.9 | 42.8 | 107 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 44.3 | 106 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 58.8 | 120 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 63.3 | 115 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 55.1 | 98 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 39.9 | 108 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.7 | 96 | 57-132 | |

SAMPLE DUPLICATE: 622864

| Parameter | Units | 1094469001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 6.5 | 6.5 | 0 | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

SAMPLE DUPLICATE: 622864

| Parameter | Units | 1094469001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 10.7 | 11.5 | 7 | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5J | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | 5.9 | 6.1 | 3 | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 6.4 | 6.7 | 5 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | 11.0 | 12.8 | 15 | 25 | |
| 4-Ethyltoluene | ug/m3 | 4.0 | 4.1 | 2 | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 27.3 | 27.7 | 2 | 25 | |
| Benzene | ug/m3 | 4.0 | 4.1 | 4 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.6 | 1.6 | 0 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 2.9 | 3.0 | 3 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 3.2 | 3.2 | 2 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 3.9 | 2.8J | | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 10.9 | 10.9 | 0 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 10.6 | 10.4 | 2 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 4.3 | 4.8 | 9 | 25 | |
| n-Hexane | ug/m3 | 6.0 | 5.8 | 4 | 25 | |
| Naphthalene | ug/m3 | 6.3 | 6.0 | 5 | 25 | |
| o-Xylene | ug/m3 | 4.0 | 4.0 | 0 | 25 | |
| Propylene | ug/m3 | ND | 16.0 | | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 12.5 | 13.1 | 5 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

SAMPLE DUPLICATE: 622864

| Parameter | Units | 1094469001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | 2.0 | 2.0 | 0 | 25 | |
| Vinyl acetate | ug/m3 | ND | 2.3 | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1094469001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1094469002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

SS This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST.Louis Park
Pace Project No.: 1094469

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094469001** | **B-6500 LAKE#3 (8')** | TO-15 | AIR/8553 | | |
| **1094469002** | **B6504 WALKER#1 (8')** | TO-15 | AIR/8553 | | |



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Data File: \\192.168.10.12\chem\10air0.i\051409.b\13422.D
Report Date: 19-May-2009 08:21

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 1094469001
Operator : CJR
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 15-MAY-2009 01:33

Client SDG: 051409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 12.270 | 20.3 | J |
| 2. 556-67-2 | Cyclotetrasiloxane, octamet | 12.661 | 49.6 | NJ |
| 3. 629-62-9 | Pentadecane | 13.008 | 13.7 | NJ |
| 4. 13475-82-6 | Heptane, 2,2,4,6,6-pentamet | 13.802 | 22.7 | NJ |
| 5. 31081-18-2 | Nonane, 3-methyl-5-propyl- | 13.976 | 108 | NJ |
| 6. | Unknown | 14.379 | 204 | J |
| 7. | Unknown | 14.757 | 86.6 | J |
| 8. 563-16-6 | Hexane, 3,3-dimethyl- | 15.018 | 47.8 | NJ |
| 9. | Unknown | 15.129 | 43.2 | J |
| 10. | Unknown | 15.446 | 46.8 | J |
| 11. | Unknown | 15.756 | 36.3 | J |

Data File: \\192.168.10.12\chem\10air0.i\051409.b\13422.D
Report Date: 19-May-2009 08:21

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air0.i\051409.b\13422.D
Lab Smp Id: 1094469001
Inj Date : 15-MAY-2009 01:33
Operator : CJR Inst ID: 10air0.i
Smp Info :
Misc Info : 8553
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air0.i\051409.b\LOWTO15_134.m
Meth Date : 19-May-2009 08:11 apeterson Quant Type: ISTD
Cal Date : 14-MAY-2009 19:02 Cal File: 13410.D
Als bottle: 22
Dil Factor: 1.59000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

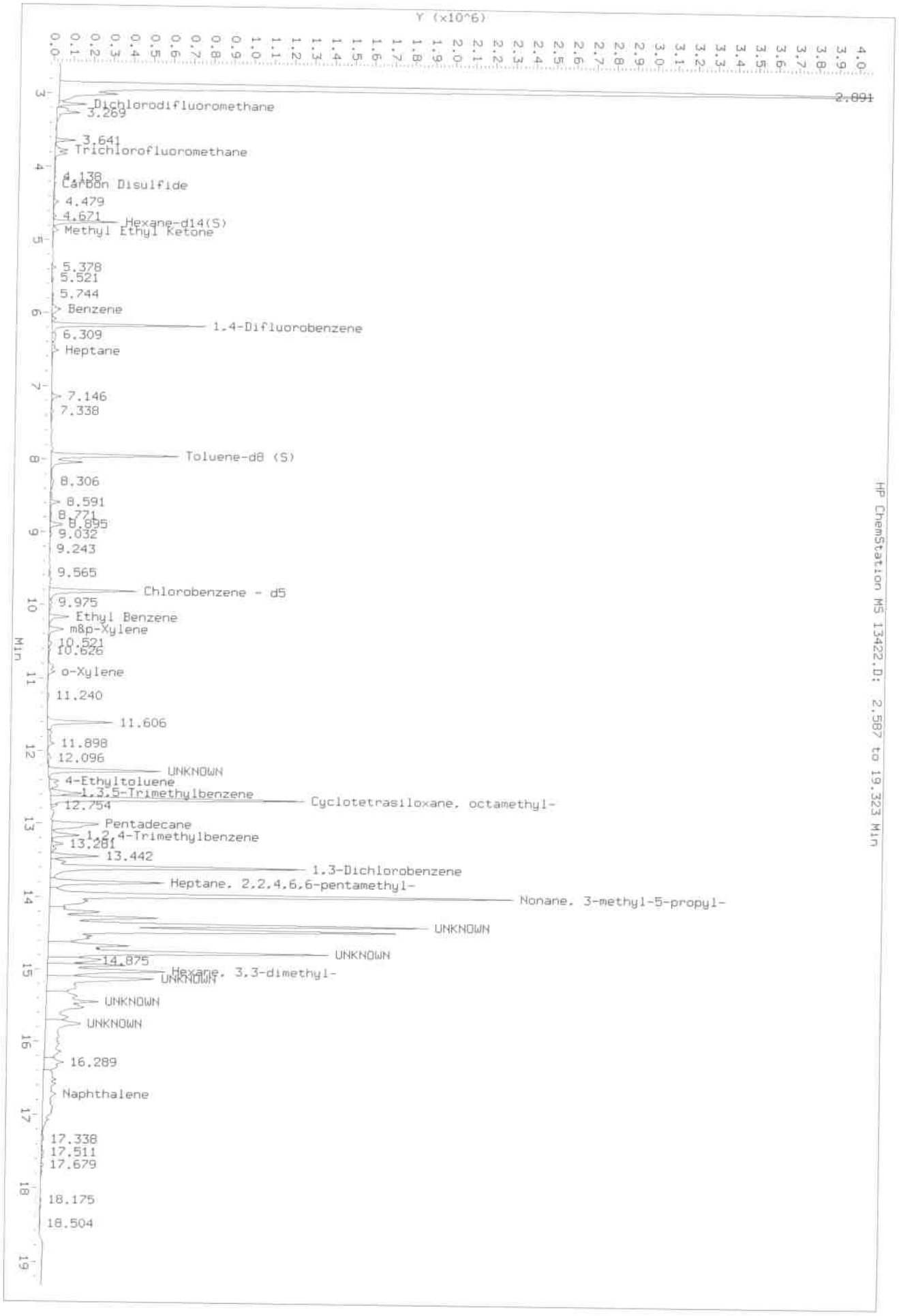
| Name | Value | Description |
|---|---|---|
| DF | 1.590 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 48 Chlorobenzene - d5 | 9.813 | 1048636 | 10.000 |

| | CONCENTRATIONS | | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ppbv) | FINAL( ppbv) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 12.270 | 1336579 | 12.7458720 | 20.3 | 0 | | 0 | 48 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 12.661 | 3270180 | 31.1850558 | 49.6 | 80 | NBS75K.1 | 72646 | 48 |
| Pentadecane | | | | CAS #: 629-62-9 | | | |
| 13.008 | 906277 | 8.64242973 | 13.7 | 72 | NBS75K.1 | 70278 | 48 |
| Heptane, 2,2,4,6,6-pentamethyl- | | | | CAS #: 13475-82-6 | | | |
| 13.802 | 1498873 | 14.2935405 | 22.7 | 72 | NBS75K.1 | 68259 | 48 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 13.976 | 7148398 | 68.1684705 | 108 | 72 | NBS75K.1 | 19054 | 48 |
| Unknown | | | | CAS #: | | | |
| 14.379 | 13468869 | 128.441678 | 204 | 0 | | 0 | 48 |

Data File: \\192.168.10.12\chem\10air0.i\051409.b\13422.D
Report Date: 19-May-2009 08:21

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 14.757 | 5711626 | 54.4671480 | 86.6 | 0 | | 0 | 48 |
| Hexane, 3,3-dimethyl- | | | | CAS #: 563-16-6 | | | |
| 15.018 | 3150525 | 30.0440025 | 47.8 | 72 | NBS75K.1 | 3095 | 48 |
| Unknown | | | | CAS #: | | | |
| 15.129 | 2847846 | 27.1575997 | 43.2 | 0 | | 0 | 48 |
| Unknown | | | | CAS #: | | | |
| 15.446 | 3086562 | 29.4340344 | 46.8 | 0 | | 0 | 48 |
| Unknown | | | | CAS #: | | | |
| 15.756 | 2393032 | 22.8204044 | 36.3 | 0 | | 0 | 48 |


Data File: \\192.168.10.12\chem\10air0.i\051409.b\13422.D
Injection Date: 15-MAY-2009 01:33
Instrument: 10air0.i
Client Sample ID:
HP ChemStation MS 13422.D: 2.587 to 19.323 Min
Y (x10^6)
Min
2.891
Dichlorodifluoromethane
3.269
3.641
Trichlorofluoromethane
4.138
Carbon Disulfide
4.479
4.671
Hexane-d14(S)
Methyl Ethyl Ketone
5.378
5.521
5.744
Benzene
1.4-Difluorobenzene
6.309
Heptane
7.146
7.338
Toluene-d8 (S)
8.306
8.591
8.771
8.895
9.032
9.243
9.565
Chlorobenzene - d5
9.975
Ethyl Benzene
m&p-Xylene
10.521
10.626
o-Xylene
11.240
11.606
11.898
12.096
UNKNOWN
4-Ethyltoluene
1.3.5-Trimethylbenzene
12.754
Cyclotetrasiloxane, octamethyl-
Pentadecane
1.2.4-Trimethylbenzene
13.281
13.442
1.3-Dichlorobenzene
Heptane, 2.2.4.6.6-pentamethyl-
Nonane, 3-methyl-5-propyl-
UNKNOWN
UNKNOWN
14.875
Hexane, 3.3-dimethyl-
UNKNOWN
UNKNOWN
UNKNOWN
16.289
Naphthalene
17.338
17.511
17.679
18.175
18.504

Data File: \\192.168.10.12\chem\10air0.i\051409.b\13424.D
Report Date: 19-May-2009 08:23

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 1094469002
Operator : CJR
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 15-MAY-2009 02:38

Client SDG: 051409.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | Unknown | 12.270 | 17.0 | J |
| 2. 556-67-2 | Cyclotetrasiloxane, octamet | 12.660 | 42.9 | NJ |
| 3. 62237-98-3 | Decane, 2,2,4-trimethyl- | 13.802 | 23.3 | NJ |
| 4. | Unknown | 13.976 | 101 | J |
| 5. | Unknown | 14.379 | 192 | J |
| 6. 17301-30-3 | Undecane, 3,8-dimethyl- | 14.763 | 82.6 | NJ |
| 7. 563-16-6 | Hexane, 3,3-dimethyl- | 15.018 | 45.3 | NJ |
| 8. 62016-19-7 | Octane, 6-ethyl-2-methyl- | 15.129 | 42.7 | NJ |
| 9. | Unknown | 15.446 | 47.7 | J |
| 10. | Unknown | 15.762 | 29.2 | J |

Data File: \\192.168.10.12\chem\10air0.i\051409.b\13424.D
Report Date: 19-May-2009 08:23

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air0.i\051409.b\13424.D
Lab Smp Id: 1094469002
Inj Date : 15-MAY-2009 02:38
Operator : CJR Inst ID: 10air0.i
Smp Info :
Misc Info : 8553
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air0.i\051409.b\LOWTO15_134.m
Meth Date : 19-May-2009 08:11 apeterson Quant Type: ISTD
Cal Date : 14-MAY-2009 19:02 Cal File: 13410.D
Als bottle: 24
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

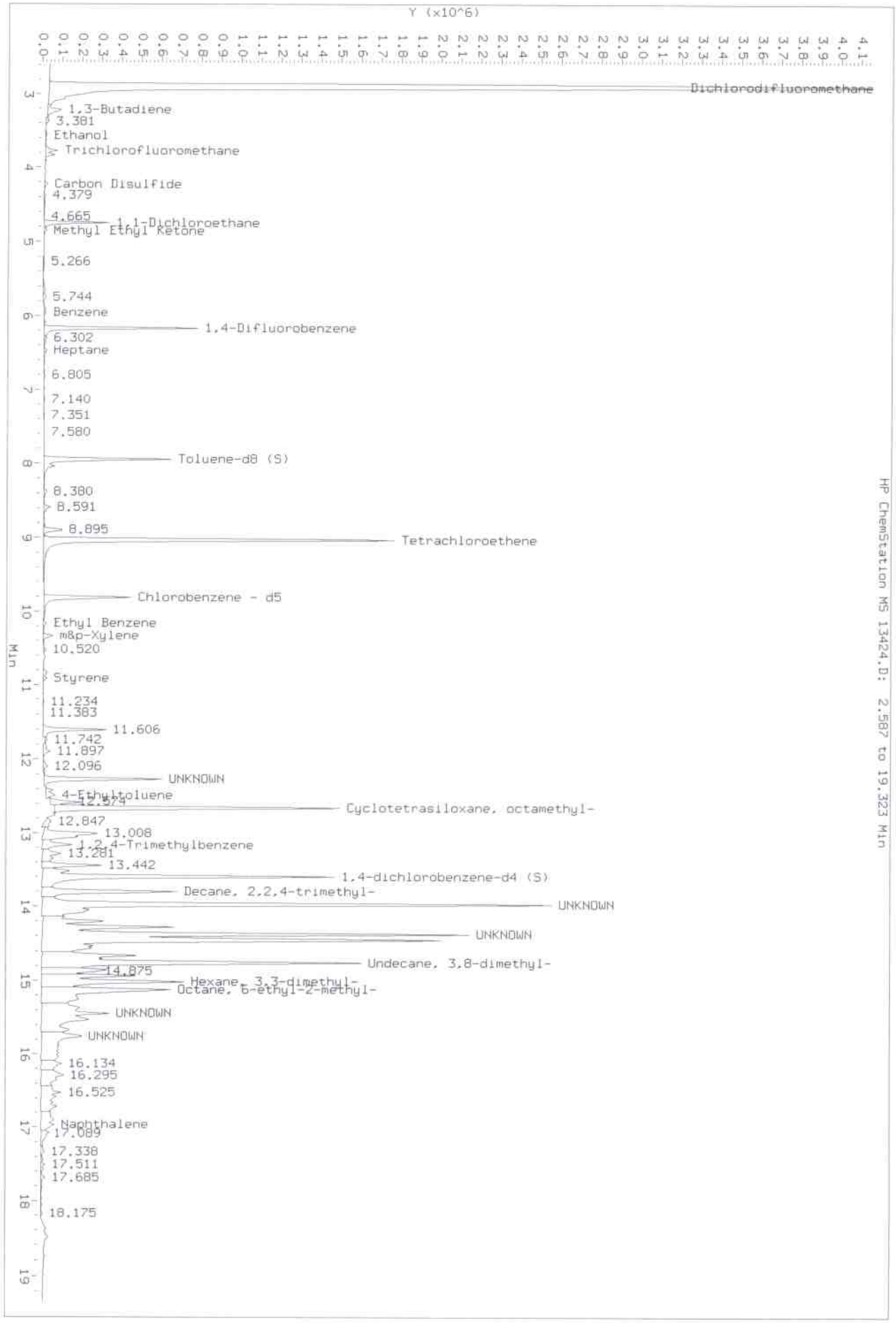
| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 48 Chlorobenzene - d5 | 9.813 | 1103356 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 12.270 | 1398585 | 12.6757293 | 17.0 | 0 | | 0 | 48 |
| Cyclotetrasiloxane, octamethyl- | | | | CAS #: 556-67-2 | | | |
| 12.660 | 3529868 | 31.9920984 | 42.9 | 80 | NBS75K.1 | 72646 | 48 |
| Decane, 2,2,4-trimethyl- | | | | CAS #: 62237-98-3 | | | |
| 13.802 | 1920206 | 17.4033160 | 23.3 | 78 | NBS75K.1 | 18998 | 48 |
| Unknown | | | | CAS #: | | | |
| 13.976 | 8298469 | 75.2111465 | 101 | 0 | | 0 | 48 |
| Unknown | | | | CAS #: | | | |
| 14.379 | 15815284 | 143.337965 | 192 | 0 | | 0 | 48 |
| Undecane, 3,8-dimethyl- | | | | CAS #: 17301-30-3 | | | |
| 14.763 | 6804748 | 61.6731690 | 82.6 | 72 | NBS75K.1 | 19009 | 48 |

Data File: \\192.168.10.12\chem\10air0.i\051409.b\13424.D
Report Date: 19-May-2009 08:23

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Hexane, 3,3-dimethyl- | | | | | CAS #: 563-16-6 | | |
| 15.018 | 3727725 | 33.7853225 | 45.3 | 72 | NBS75K.1 | 3095 | 48 |
| Octane, 6-ethyl-2-methyl- | | | | | CAS #: 62016-19-7 | | |
| 15.129 | 3516151 | 31.8677753 | 42.7 | 78 | NBS75K.1 | 11609 | 48 |
| Unknown | | | | | CAS #: | | |
| 15.446 | 3931498 | 35.6321738 | 47.7 | 0 | | 0 | 48 |
| Unknown | | | | | CAS #: | | |
| 15.762 | 2403748 | 21.7857837 | 29.2 | 0 | | 0 | 48 |


Y (x10^6)
Dichlorodifluoromethane
1,3-Butadiene
3.381
Ethanol
Trichlorofluoromethane
Carbon Disulfide
4.379
4.665
1,1-Dichloroethane
Methyl Ethyl Ketone
5.266
5.744
Benzene
1,4-Difluorobenzene
6.302
Heptane
6.805
7.140
7.351
7.580
Toluene-d8 (S)
8.380
8.591
8.895
Tetrachloroethene
Chlorobenzene - d5
Ethyl Benzene
m&p-Xylene
10.520
Styrene
11.234
11.383
11.606
11.742
11.897
12.096
UNKNOWN
4-Ethyltoluene
12.574
Cyclotetrasiloxane, octamethyl-
12.847
13.008
1,2,4-Trimethylbenzene
13.281
13.442
1,4-dichlorobenzene-d4 (S)
Decane, 2,2,4-trimethyl-
UNKNOWN
UNKNOWN
Undecane, 3,8-dimethyl-
14.875
Hexane, 3,3-dimethyl-
Octane, 6-ethyl-2-methyl-
UNKNOWN
UNKNOWN
16.134
16.295
16.525
Naphthalene
17.089
17.338
17.511
17.685
18.175
Min
Data File: \\192.168.10.12\chem\10air0.1\051409.b\13424.D
Injection Date: 15-MAY-2009 02:38
Instrument: 10air0.1
Client Sample ID:
HP ChemStation MS 13424.D: 2.587 to 19.323 Min

* MPCA

STS | AECOM

# Chain of Custody Record

№ 4219

1094469

Record Number 4219 Through 4219

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Minneapolis
Project No. 04660034 PO No.
Project Name St. Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory Pace
Contact Person Carol Dover
Phone No. #612 607 6436 5
Results Due 5 BD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6500 Lake #3 (S) | 5/6 | 1144 | X | | 1 | Air | | 1 | 1 | | | | TO-15 | #0595 CO1 |
| B6504 Walker #1 (S) | ↓ | 1515 | X | | 1 | ↓ | | 1 | | | | | ↓ | 0047 CO2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Collected by: JASON BOWE | Date 5/6/09 | Time See Above | Delivery by: | Date | Time |
| Received by: [signature] TE AMB | Date 5-6-09 | Time 17:18 | Relinquished by: JASON BOWE | Date 5/6/09 | Time 17:20 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☑ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: sts/aecom  Project # 10744469

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no  Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____  Temp Blank: Yes ____ No X

Thermometer Used ~~80344042, 170425~~  Type of Ice: Wet Blue (None)  ☐ Samples on Ice, cooling ~~process~~ has begun

Cooler Temperature AMB  Biological Tissue is Frozen: Yes No  Date and Initials of person examining contents: 5/6/09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: air cans | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:**  Field Data Required? Y / N

Person Contacted: _____  Date/Time: _____

Comments/ Resolution: NO FC's

**Project Manager Review:** _____  Date: 5/7/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers) REVIEWED 5/6/09



F-ALL-C003rev.5, 5Aug2008

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 21, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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# CERTIFICATIONS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11887
New York Certification #: 11888
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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## SAMPLE SUMMARY

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094582001** | **B-6504WALKER #2 (40')** | Solid | 05/07/09 11:57 | 05/07/09 17:32 |
| **1094582002** | **B6824LAKE#1 (42')** | Solid | 05/07/09 16:08 | 05/07/09 17:32 |
| **1094582003** | **TRIP BLANK** | Solid | 05/07/09 00:00 | 05/07/09 17:32 |



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## SAMPLE ANALYTE COUNT

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1094582001** | **B-6504WALKER #2 (40')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094582002** | **B6824LAKE#1 (42')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094582003** | **TRIP BLANK** | EPA 8260 | JJB | 71 | PASI-G |



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4431

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: B-6504WALKER #2 (40')** **Lab ID: 1094582001** Collected: 05/07/09 11:57 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **9.6** | % | 0.10 | 0.10 | 1 | | 05/12/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 18.5 | 6.2 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.6 | 1.5 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.6 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.6 | 0.48 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.6 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.6 | 0.33 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.6 | 0.91 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.6 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.6 | 1.7 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.6 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.6 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.6 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.6 | 0.19 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.6 | 1.3 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.6 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.6 | 0.79 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.6 | 0.51 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.6 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.6 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.6 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.6 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.6 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.6 | 0.31 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.6 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.6 | 0.64 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.6 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.6 | 0.49 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.92 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.6 | 0.70 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.6 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.6 | 0.59 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.6 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.6 | 0.68 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.6 | 0.98 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.6 | 0.49 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.6 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.6 | 0.25 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.6 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: B-6504WALKER #2 (40')** **Lab ID: 1094582001** Collected: 05/07/09 11:57 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.6 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.6 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.6 | 0.37 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.6 | 0.79 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.6 | 0.51 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.6 | 0.58 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.6 | 0.25 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.6 | 0.11 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.40 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.6 | 0.69 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.6 | 0.85 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.6 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.6 | 0.79 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.6 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.6 | 0.37 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.6 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.6 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.6 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.6 | 0.81 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.6 | 1.3 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.6 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.6 | 0.14 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.6 | 0.24 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.6 | 0.81 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 9.3 | 0.99 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.6 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 95-47-6 | |
| Dibromofluoromethane (S) | 87 | % | 63-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:19 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: B6824LAKE#1 (42')** **Lab ID: 1094582002** Collected: 05/07/09 16:08 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **5.5** | % | 0.10 | 0.10 | 1 | | 05/12/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | **31.4** | ug/kg | 16.3 | 5.4 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.1 | 1.3 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.1 | 0.42 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.1 | 0.89 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.1 | 0.29 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.1 | 0.81 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.1 | 0.92 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.1 | 1.5 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.1 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.1 | 0.41 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.1 | 0.27 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.1 | 0.17 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.1 | 0.99 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.1 | 0.27 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.1 | 0.56 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.81 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.1 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.1 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.1 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.1 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.1 | 0.60 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.1 | 0.86 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.1 | 0.43 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.1 | 0.93 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: B6824LAKE#1 (42')** **Lab ID: 1094582002** Collected: 05/07/09 16:08 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.1 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.1 | 0.33 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.1 | 0.45 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.1 | 0.51 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.1 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.1 | 0.095 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.36 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.1 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 79-34-5 | |
| Tetrachloroethene | **10.9** | ug/kg | 4.1 | 0.75 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.1 | 0.96 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.1 | 0.69 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.1 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.1 | 0.32 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.1 | 0.63 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.1 | 0.58 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.1 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.1 | 0.71 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.1 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.1 | 0.88 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.1 | 0.12 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.1 | 0.21 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.1 | 0.71 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.2 | 0.87 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.1 | 0.46 | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 95-47-6 | |
| Dibromofluoromethane (S) | 88 | % | 63-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 11:43 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: TRIP BLANK** **Lab ID: 1094582003** Collected: 05/07/09 00:00 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 20.0 | 6.7 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 5.0 | 1.6 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 107-05-1 | |
| Benzene | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 5.0 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 5.0 | 0.35 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-27-4 | |
| Bromoform | ND | ug/kg | 5.0 | 0.99 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 5.0 | 1.8 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 5.0 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 5.0 | 0.50 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 5.0 | 0.34 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 5.0 | 0.21 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.0 | 1.5 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-00-3 | |
| Chloroform | ND | ug/kg | 5.0 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 5.0 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5.0 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 5.0 | 0.71 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 5.0 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 5.0 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 5.0 | 0.33 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 5.0 | 0.69 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 5.0 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 5.0 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 5.0 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 5.0 | 0.75 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 5.0 | 0.67 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 5.0 | 0.64 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 5.0 | 0.80 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 5.0 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 5.0 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 5.0 | 0.78 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 87-68-3 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 5.0 | 0.70 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 5.0 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 5.0 | 0.40 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-09-2 | |



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# ANALYTICAL RESULTS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

**Sample: TRIP BLANK** **Lab ID: 1094582003** Collected: 05/07/09 00:00 Received: 05/07/09 17:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 5.0 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 5.0 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 103-65-1 | |
| Styrene | ND | ug/kg | 5.0 | 0.12 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5.0 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 5.0 | 0.92 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 5.0 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 109-99-9 | |
| Toluene | ND | ug/kg | 5.0 | 0.85 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 5.0 | 0.70 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5.0 | 0.40 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 5.0 | 0.77 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 5.0 | 0.71 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 5.0 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 5.0 | 0.87 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 5.0 | 1.4 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 5.0 | 0.15 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 5.0 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 5.0 | 0.87 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 10.0 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 5.0 | 0.56 | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 95-47-6 | |
| Dibromofluoromethane (S) | 85 | % | 63-130 | | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 1868-53-7 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 10:56 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

QC Batch: MSV/4431 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1094582001, 1094582002, 1094582003

METHOD BLANK: 156554 Matrix: Solid
Associated Lab Samples: 1094582001, 1094582002, 1094582003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Acetone | ug/kg | ND | 20.0 | 05/12/09 08:58 | |
| Allyl chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Benzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromoform | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromomethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloroform | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dibromomethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

METHOD BLANK: 156554 Matrix: Solid

Associated Lab Samples: 1094582001, 1094582002, 1094582003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 05/12/09 08:58 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Naphthalene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| o-Xylene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Styrene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Toluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Trichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Bromofluorobenzene (S) | % | 95 | 70-130 | 05/12/09 08:58 | |
| Dibromofluoromethane (S) | % | 81 | 63-130 | 05/12/09 08:58 | |
| Toluene-d8 (S) | % | 101 | 70-130 | 05/12/09 08:58 | |

LABORATORY CONTROL SAMPLE & LCSD: 156555 156556

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 48.0 | 47.5 | 96 | 95 | 70-130 | .9 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 37.1 | 35.9 | 74 | 72 | 70-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 49.7 | 49.4 | 99 | 99 | 70-130 | .7 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 42.9 | 42.4 | 86 | 85 | 67-137 | 1 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 52.7 | 51.3 | 105 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 42.7 | 42.8 | 85 | 86 | 63-134 | .3 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 47.0 | 45.5 | 94 | 91 | 70-130 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 36.4 | 40.3 | 73 | 81 | 35-150 | 10 | 42 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 42.8 | 43.4 | 86 | 87 | 50-150 | 1 | 20 | |
| Acetone | ug/kg | 50 | 32.9 | 34.6 | 66 | 69 | 10-197 | 5 | 85 | |
| Benzene | ug/kg | 50 | 45.1 | 45.8 | 90 | 92 | 70-130 | 1 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 49.1 | 48.7 | 98 | 97 | 70-130 | .8 | 20 | |
| Bromoform | ug/kg | 50 | 53.3 | 52.1 | 107 | 104 | 64-137 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

LABORATORY CONTROL SAMPLE & LCSD: 156555 156556

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 50.4 | 50.6 | 101 | 101 | 66-136 | .4 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 48.3 | 48.3 | 97 | 97 | 70-130 | .1 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.1 | 55.2 | 108 | 110 | 70-130 | 2 | 20 | |
| Chloroethane | ug/kg | 50 | 48.1 | 47.2 | 96 | 94 | 59-140 | 2 | 20 | |
| Chloroform | ug/kg | 50 | 45.0 | 44.7 | 90 | 89 | 69-130 | .5 | 20 | |
| Chloromethane | ug/kg | 50 | 40.2 | 39.3 | 80 | 79 | 27-141 | 2 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 46.7 | 46.3 | 93 | 93 | 70-130 | 1 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 49.4 | 48.5 | 99 | 97 | 70-130 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 48.6 | 49.1 | 97 | 98 | 70-130 | 1 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.0 | 53.0 | 104 | 106 | 70-130 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 111 | 112 | 111 | 112 | 70-130 | .9 | 20 | |
| Methylene Chloride | ug/kg | 50 | 45.0 | 43.8 | 90 | 88 | 70-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.3 | 53.6 | 107 | 107 | 70-130 | .7 | 20 | |
| Styrene | ug/kg | 50 | 50.1 | 50.7 | 100 | 101 | 70-130 | 1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.9 | 58.3 | 114 | 117 | 67-139 | 2 | 20 | |
| Toluene | ug/kg | 50 | 53.4 | 53.4 | 107 | 107 | 70-130 | .005 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 47.5 | 47.6 | 95 | 95 | 70-130 | .2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 48.1 | 47.7 | 96 | 95 | 70-130 | .9 | 20 | |
| Trichloroethene | ug/kg | 50 | 56.5 | 55.8 | 113 | 112 | 70-130 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 45.5 | 44.9 | 91 | 90 | 65-142 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 94 | 96 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | 82 | 81 | 63-130 | | | |
| Toluene-d8 (S) | % | | | | 102 | 102 | 70-130 | | | |



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## QUALITY CONTROL DATA

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

QC Batch: MPRP/15667 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1094582001, 1094582002

SAMPLE DUPLICATE: 619594

| Parameter | Units | 1094495013 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 22.6 | 22.6 | 0 | 30 | |

SAMPLE DUPLICATE: 619595

| Parameter | Units | 1094582001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 9.6 | 9.5 | 2 | 30 | |



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# QUALIFIERS

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4431

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 ST LOUIS PARK
Pace Project No.: 1094582

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094582001** | **B-6504WALKER #2 (40')** | EPA 8260 | MSV/4412 | EPA 8260 | MSV/4431 |
| **1094582002** | **B6824LAKE#1 (42')** | EPA 8260 | MSV/4412 | EPA 8260 | MSV/4431 |
| **1094582003** | **TRIP BLANK** | EPA 8260 | MSV/4412 | EPA 8260 | MSV/4431 |
| **1094582001** | **B-6504WALKER #2 (40')** | % Moisture | MPRP/15667 | | |
| **1094582002** | **B6824LAKE#1 (42')** | % Moisture | MPRP/15667 | | |



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Short Hold time * MPCA 1145 109458 2

# Chain of Custody Record

№ 4225

STS | AECOM

Contact Person Peter Rzepecki
Phone No. 763-852-4245 Office Minneapolis
Project No. 04660024 PO No.
Project Name St. Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4225 Through 4225
Laboratory Pace
Contact Person Carol Davis
Phone No. 612 607 6436
Results Due STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6504 Walker #2 (40) | 5/7 | 1757 | X | | 4 | Soil | 3 | 1 | | | | | Terra Core VOCs (8260) | 001 |
| B6824 Lake #1 (42) | ↓ | 1608 | X | | 4 | ↓ | 3 | 1 | | | | | ↓ | 002 |
| TRIP BLANK | 1/26 | | X | | 2 | ↓ | 2 | N | | | | | ↓ | 003 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Jason Kronte | Date 5/7/09 | Time See above | Delivery by: | Date | Time |
| Received by: Price | Date 5/7/09 | Time 1732 | Relinquished by: Jason Kronte | Date 5/7/09 | Time 1732 |
| Received by: | Date TC 2.4i | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

Pace Analytical

# Sample Condition Upon Receipt

Client Name: Aecom  Project # 1094582

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no  Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____  Temp Blank: Yes ✓ No _____

Thermometer Used 80344042, 179425  Type of Ice: (Wet) Blue None  ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.4c  Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/7/09

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. Terracore |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 16. Meth = 112408-3 |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☐N/A | DI = 081808-3 |
| Pace Trip Blank Lot # (if purchased): | ☑ | |

**Client Notification/ Resolution:**  Field Data Required? Y / N

Person Contacted: _____  Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** GAD  **Date:** 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

JL 5/8/09



F-AL-C-003rev.08, 5Aug2008

# Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 1094582 **Workorder Name:** 04660024 ST LOUIS PARK **Owner Received Date:** 5/7/2009 **Results Requested By:** 5/21/2009

**Report To**

Carol Davy
Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone (612)607-1700
Fax (612)607-6444

**Subcontract To**

Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

**Requested Analysis**

| | Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: Other | Low Level PAH | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|
| 001 | 1 | B-6504WALKER #2 (40') | 5/7/2009 11:57 | 1094582001 | Solid | 1 | X | 5/11/09 2-40ml E |
| 002 | 2 | B6824LAKE#1 (42') | 5/7/2009 16:08 | 1094582002 | Solid | 1 | X | |
| 003 | 3 | TRIP BLANK | 5/7/2009 00:00 | 1094582003 | Solid | 1 | X | 2-40ml E |
| | 4 | | | | | | | |
| | 5 | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Carol Davy Pace MN | 5/8/09 1350 | WALTO | |
| 2 | WALTO | 5/9/09 910 | [illegible] | 5/9/09 910 |
| 3 | | | | |

**Comments**

Dnma

HD17085

**Cooler Temperature on Receipt** _____ °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

# Sample Condition Upon Receipt

4017085

Pace Analytical

Client Name: Pecom

Project # 1094582

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____ Temp Blank: Yes ✓ No _____

Thermometer Used 80344042, 179425 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.42 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/7/09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. Temp water |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☑No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 16. Mech = 112408-3 |
| Trip Blank Custody Seals Present | ☑Yes ☐No ☐N/A | DI = 081808-3 |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** CAD **Date:** 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

CAL 5/8/09

# Sample Condition Upon Receipt

Pace Analytical

Client Name: PACE - MN Project # 4017085

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other Walt CO

Tracking #:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature DRY ICE Biological Tissue is Frozen: Yes No DRY ICE

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/9/09 RE

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☒No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. 5/21/09 |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: S | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☒Yes ☒No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☒No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** **Date:** 5/11/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 21, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660224 St. Louis Park
Pace Project No.: 1094598

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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## CERTIFICATIONS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094598001** | **B-6504 Walker#2 (8')** | Air | 05/07/09 10:14 | 05/07/09 17:32 |
| **1094598002** | **B-6824 Lake#1 (8')** | Air | 05/07/09 14:22 | 05/07/09 17:32 |



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## SAMPLE ANALYTE COUNT

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1094598001** | **B-6504 Walker#2 (8')** | TO-15 | DB1 | 60 |
| **1094598002** | **B-6824 Lake#1 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
2 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8563

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
- LCS (Lab ID: 622031)
  - 1,1,1-Trichloroethane
  - Chloroform
  - Ethyl acetate

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- LCS (Lab ID: 622031)
  - 1,1-Dichloroethene
  - Methyl-tert-butyl ether
  - cis-1,3-Dichloropropene

QC Batch: AIR/8568

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- LCS (Lab ID: 622595)
  - Tetrahydrofuran

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8563

R1: RPD value was outside control limits.
- DUP (Lab ID: 622359)



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# PROJECT NARRATIVE

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 21, 2009

QC Batch: AIR/8563

R1: RPD value was outside control limits.

- 1,2,4-Trimethylbenzene
- Methylene Chloride
- n-Heptane
- n-Hexane

QC Batch: AIR/8568

R1: RPD value was outside control limits.

- DUP (Lab ID: 623887)
  - Propylene

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

- B-6504 Walker#2 (8') (Lab ID: 1094598001)
- B-6824 Lake#1 (8') (Lab ID: 1094598002)

Analyte Comments:

QC Batch: AIR/8563

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 622359)
  - Ethanol

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Sample: B-6504 Walker#2 (8')** **Lab ID: 1094598001** Collected: 05/07/09 10:14 Received: 05/07/09 17:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **25.5** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/20/09 22:03 | 67-64-1 | |
| Benzene | **0.94** | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/20/09 22:03 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/20/09 22:03 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/20/09 22:03 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/20/09 22:03 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/20/09 22:03 | 106-99-0 | |
| 2-Butanone (MEK) | **6.1** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/20/09 22:03 | 78-93-3 | |
| Carbon disulfide | **3.8** | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/20/09 22:03 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/20/09 22:03 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/20/09 22:03 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/20/09 22:03 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/20/09 22:03 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/20/09 22:03 | 74-87-3 | |
| Cyclohexane | ND | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/20/09 22:03 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/20/09 22:03 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/20/09 22:03 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/20/09 22:03 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/20/09 22:03 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/20/09 22:03 | 106-46-7 | |
| Dichlorodifluoromethane | **2.8** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/20/09 22:03 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/20/09 22:03 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/20/09 22:03 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/20/09 22:03 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/20/09 22:03 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/20/09 22:03 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/20/09 22:03 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/20/09 22:03 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/20/09 22:03 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/20/09 22:03 | 76-14-2 | |
| Ethanol | **9.1** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/20/09 22:03 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/20/09 22:03 | 141-78-6 | |
| Ethylbenzene | **2.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/20/09 22:03 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/20/09 22:03 | 622-96-8 | |
| n-Heptane | **1.2** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/20/09 22:03 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/20/09 22:03 | 87-68-3 | |
| n-Hexane | **1.8** | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/20/09 22:03 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/20/09 22:03 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/20/09 22:03 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/20/09 22:03 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/20/09 22:03 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/20/09 22:03 | 91-20-3 | |
| 2-Propanol | **15.8** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/20/09 22:03 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/20/09 22:03 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/20/09 22:03 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/20/09 22:03 | 79-34-5 | |
| Tetrachloroethene | **6.2** | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/20/09 22:03 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Sample: B-6504 Walker#2 (8')** **Lab ID: 1094598001** Collected: 05/07/09 10:14 Received: 05/07/09 17:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/20/09 22:03 | 109-99-9 | L2 |
| Toluene | **3.0** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/20/09 22:03 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/20/09 22:03 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/20/09 22:03 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/20/09 22:03 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/20/09 22:03 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/20/09 22:03 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/20/09 22:03 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **3.9** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/20/09 22:03 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/20/09 22:03 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/20/09 22:03 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/20/09 22:03 | 75-01-4 | |
| m&p-Xylene | **3.3** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/20/09 22:03 | 1330-20-7 | |
| o-Xylene | **1.3** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/20/09 22:03 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Sample: B-6824 Lake#1 (8')** **Lab ID: 1094598002** Collected: 05/07/09 14:22 Received: 05/07/09 17:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **25.3** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/18/09 23:59 | 67-64-1 | |
| Benzene | **4.0** | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/18/09 23:59 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/18/09 23:59 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/18/09 23:59 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/18/09 23:59 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/18/09 23:59 | 106-99-0 | |
| 2-Butanone (MEK) | **7.9** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/18/09 23:59 | 78-93-3 | |
| Carbon disulfide | **0.97** | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/18/09 23:59 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/18/09 23:59 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/18/09 23:59 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/18/09 23:59 | 75-00-3 | |
| Chloroform | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/18/09 23:59 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/18/09 23:59 | 74-87-3 | |
| Cyclohexane | **3.1** | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/18/09 23:59 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/18/09 23:59 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/18/09 23:59 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/18/09 23:59 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/18/09 23:59 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/18/09 23:59 | 106-46-7 | |
| Dichlorodifluoromethane | **3.6** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/18/09 23:59 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/18/09 23:59 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/18/09 23:59 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/18/09 23:59 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/18/09 23:59 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/18/09 23:59 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/18/09 23:59 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/18/09 23:59 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/18/09 23:59 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/18/09 23:59 | 76-14-2 | |
| Ethanol | **8.9** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/18/09 23:59 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/18/09 23:59 | 141-78-6 | |
| Ethylbenzene | **9.9** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/18/09 23:59 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/18/09 23:59 | 622-96-8 | |
| n-Heptane | **4.5** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/18/09 23:59 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/18/09 23:59 | 87-68-3 | |
| n-Hexane | **6.7** | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/18/09 23:59 | 110-54-3 | |
| 2-Hexanone | **4.0** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/18/09 23:59 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/18/09 23:59 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/18/09 23:59 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/18/09 23:59 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/18/09 23:59 | 91-20-3 | |
| 2-Propanol | **22.6** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/18/09 23:59 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/18/09 23:59 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/18/09 23:59 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/18/09 23:59 | 79-34-5 | |
| Tetrachloroethene | **3620** | ug/m3 | 37.5 | 18.8 | 26.8 | | 05/20/09 19:57 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

**Sample: B-6824 Lake#1 (8')** **Lab ID: 1094598002** Collected: 05/07/09 14:22 Received: 05/07/09 17:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/18/09 23:59 | 109-99-9 | |
| Toluene | **11.1** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/18/09 23:59 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/18/09 23:59 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/18/09 23:59 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/18/09 23:59 | 79-00-5 | |
| Trichloroethene | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/18/09 23:59 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/18/09 23:59 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/18/09 23:59 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/18/09 23:59 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/18/09 23:59 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/18/09 23:59 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/18/09 23:59 | 75-01-4 | |
| m&p-Xylene | **4.0** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/18/09 23:59 | 1330-20-7 | |
| o-Xylene | **1.7** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/18/09 23:59 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

QC Batch: AIR/8563
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1094598002

METHOD BLANK: 622030
Matrix: Air
Associated Lab Samples: 1094598002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 05/18/09 15:05 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 05/18/09 15:05 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 05/18/09 15:05 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 05/18/09 15:05 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 05/18/09 15:05 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 05/18/09 15:05 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 05/18/09 15:05 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/18/09 15:05 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 05/18/09 15:05 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/18/09 15:05 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 05/18/09 15:05 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 05/18/09 15:05 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/18/09 15:05 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 05/18/09 15:05 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/18/09 15:05 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/18/09 15:05 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 05/18/09 15:05 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 05/18/09 15:05 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 05/18/09 15:05 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 05/18/09 15:05 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 05/18/09 15:05 | |
| Acetone | ug/m3 | ND | 0.48 | 05/18/09 15:05 | |
| Benzene | ug/m3 | ND | 0.65 | 05/18/09 15:05 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 05/18/09 15:05 | |
| Bromoform | ug/m3 | ND | 2.1 | 05/18/09 15:05 | |
| Bromomethane | ug/m3 | ND | 0.79 | 05/18/09 15:05 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 05/18/09 15:05 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 05/18/09 15:05 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 05/18/09 15:05 | |
| Chloroethane | ug/m3 | ND | 0.54 | 05/18/09 15:05 | |
| Chloroform | ug/m3 | ND | 0.99 | 05/18/09 15:05 | |
| Chloromethane | ug/m3 | ND | 0.42 | 05/18/09 15:05 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/18/09 15:05 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/18/09 15:05 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 05/18/09 15:05 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 05/18/09 15:05 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 05/18/09 15:05 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 05/18/09 15:05 | |
| Ethanol | ug/m3 | ND | 1.9 | 05/18/09 15:05 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 05/18/09 15:05 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 05/18/09 15:05 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 05/18/09 15:05 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 05/18/09 15:05 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

METHOD BLANK: 622030 Matrix: Air

Associated Lab Samples: 1094598002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 05/18/09 15:05 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 05/18/09 15:05 | |
| n-Heptane | ug/m3 | ND | 0.83 | 05/18/09 15:05 | |
| n-Hexane | ug/m3 | ND | 0.72 | 05/18/09 15:05 | |
| Naphthalene | ug/m3 | ND | 2.7 | 05/18/09 15:05 | |
| o-Xylene | ug/m3 | ND | 0.88 | 05/18/09 15:05 | |
| Propylene | ug/m3 | ND | 0.35 | 05/18/09 15:05 | |
| Styrene | ug/m3 | ND | 0.87 | 05/18/09 15:05 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 05/18/09 15:05 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 05/18/09 15:05 | |
| Toluene | ug/m3 | ND | 0.77 | 05/18/09 15:05 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/18/09 15:05 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/18/09 15:05 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 05/18/09 15:05 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 05/18/09 15:05 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 05/18/09 15:05 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 05/18/09 15:05 | |

LABORATORY CONTROL SAMPLE: 622031

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 75.7 | 132 | 55-127 | L1 |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 79.8 | 112 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 60.4 | 108 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 75.3 | 99 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 48.2 | 117 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 52.8 | 131 | 50-130 | L3 |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 77.0 | 103 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 61.6 | 125 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 91.7 | 113 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 72.9 | 117 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 55.6 | 124 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 58.4 | 115 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 63.1 | 128 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 27.4 | 121 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 74.5 | 116 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 70.8 | 112 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 35.0 | 113 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 51.2 | 122 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 25.3 | 106 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 55.3 | 111 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 48.2 | 114 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 24.5 | 101 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 34.2 | 104 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 81.3 | 119 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

LABORATORY CONTROL SAMPLE: 622031

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 117 | 109 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 46.6 | 117 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 45.7 | 140 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 67.5 | 104 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 53.0 | 114 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 31.7 | 119 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 61.0 | 126 | 56-125 | L1 |
| Chloromethane | ug/m3 | 21 | 26.0 | 124 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 43.4 | 105 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 66.7 | 138 | 62-135 | L3 |
| Cyclohexane | ug/m3 | 35.7 | 45.4 | 127 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 96.9 | 107 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 63.3 | 128 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 78.2 | 110 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 20.2 | 106 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 53.6 | 143 | 70-141 | L1 |
| Ethylbenzene | ug/m3 | 48.6 | 57.8 | 119 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 135 | 127 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 109 | 117 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 50.5 | 138 | 56-130 | L3 |
| Methylene Chloride | ug/m3 | 34.6 | 36.8 | 106 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 45.2 | 105 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 46.1 | 118 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 56.3 | 111 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 52.6 | 116 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 22.6 | 122 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 48.9 | 113 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 81.1 | 113 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 18.0 | 80 | 67-134 | |
| Toluene | ug/m3 | 39.9 | 42.4 | 106 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 50.8 | 121 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 54.5 | 111 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 70.2 | 127 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 76.4 | 136 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 48.2 | 131 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 31.3 | 117 | 57-132 | |

SAMPLE DUPLICATE: 622359

| Parameter | Units | 1094564001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 2.8 | 2.3 | 18 | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

SAMPLE DUPLICATE: 622359

| Parameter | Units | 1094564001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | 9.3 | 7.0 | 27 | 25 | R1 |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 16.4 | 12.8 | 25 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | 14.6 | 11.4 | 24 | 25 | |
| 4-Ethyltoluene | ug/m3 | 4.3 | 3.3J | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 1.2 | 1.1 | 4 | 25 | |
| Acetone | ug/m3 | 84.9 | 65.9 | 25 | 25 | |
| Benzene | ug/m3 | 4.3 | 3.4 | 25 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | ND | ND | | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 8.3 | 6.5 | 25 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 16.2 | 13.0 | 22 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 362 | 282 | 25 | 25 | E |
| Ethyl acetate | ug/m3 | 4.1 | 3.8 | 8 | 25 | |
| Ethylbenzene | ug/m3 | 7.0 | 5.5 | 25 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 25.1 | 19.5 | 25 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 4.8 | 3.7 | 26 | 25 | R1 |
| n-Heptane | ug/m3 | 5.8 | 4.3 | 31 | 25 | R1 |
| n-Hexane | ug/m3 | 11.5 | 8.8 | 27 | 25 | R1 |
| Naphthalene | ug/m3 | ND | 2.3J | | 25 | |
| o-Xylene | ug/m3 | 8.0 | 6.3 | 23 | 25 | |
| Propylene | ug/m3 | ND | ND | | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 96.0 | 77.8 | 21 | 25 | |
| Tetrahydrofuran | ug/m3 | 7.3 | 5.9 | 20 | 25 | |
| Toluene | ug/m3 | 50.1 | 39.2 | 24 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

SAMPLE DUPLICATE: 622359

| Parameter | Units | 1094564001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 16.0 | 12.6 | 24 | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

QC Batch: AIR/8568
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1094598001

METHOD BLANK: 622594
Matrix: Air
Associated Lab Samples: 1094598001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 05/20/09 19:27 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 05/20/09 19:27 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 05/20/09 19:27 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 05/20/09 19:27 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 05/20/09 19:27 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 05/20/09 19:27 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 05/20/09 19:27 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 05/20/09 19:27 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| Acetone | ug/m3 | ND | 0.48 | 05/20/09 19:27 | |
| Benzene | ug/m3 | ND | 0.65 | 05/20/09 19:27 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Bromoform | ug/m3 | ND | 2.1 | 05/20/09 19:27 | |
| Bromomethane | ug/m3 | ND | 0.79 | 05/20/09 19:27 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 05/20/09 19:27 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 05/20/09 19:27 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 05/20/09 19:27 | |
| Chloroethane | ug/m3 | ND | 0.54 | 05/20/09 19:27 | |
| Chloroform | ug/m3 | ND | 0.99 | 05/20/09 19:27 | |
| Chloromethane | ug/m3 | ND | 0.42 | 05/20/09 19:27 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/20/09 19:27 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 05/20/09 19:27 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 05/20/09 19:27 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 05/20/09 19:27 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Ethanol | ug/m3 | ND | 1.9 | 05/20/09 19:27 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 05/20/09 19:27 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 05/20/09 19:27 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 05/20/09 19:27 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 05/20/09 19:27 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

METHOD BLANK: 622594 Matrix: Air

Associated Lab Samples: 1094598001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 05/20/09 19:27 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 05/20/09 19:27 | |
| n-Heptane | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| n-Hexane | ug/m3 | ND | 0.72 | 05/20/09 19:27 | |
| Naphthalene | ug/m3 | ND | 2.7 | 05/20/09 19:27 | |
| o-Xylene | ug/m3 | ND | 0.88 | 05/20/09 19:27 | |
| Propylene | ug/m3 | ND | 0.35 | 05/20/09 19:27 | |
| Styrene | ug/m3 | ND | 0.87 | 05/20/09 19:27 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 05/20/09 19:27 | |
| Toluene | ug/m3 | ND | 0.77 | 05/20/09 19:27 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/20/09 19:27 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 05/20/09 19:27 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 05/20/09 19:27 | |

LABORATORY CONTROL SAMPLE: 622595

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 56.1 | 98 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 63.6 | 89 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 47.7 | 85 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 58.3 | 76 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 34.9 | 85 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 39.3 | 97 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 53.9 | 72 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 46.4 | 94 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 75.1 | 92 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 57.1 | 92 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 40.9 | 91 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 49.8 | 98 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 48.1 | 97 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 21.3 | 94 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 58.6 | 91 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 56.7 | 90 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 28.0 | 90 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 38.4 | 91 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 19.4 | 82 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 42.6 | 85 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 37.2 | 88 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 16.8 | 70 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 29.5 | 90 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 62.9 | 92 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

LABORATORY CONTROL SAMPLE: 622595

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 94.9 | 88 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 37.5 | 94 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 36.2 | 111 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 63.4 | 98 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 44.5 | 96 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 25.4 | 96 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 47.8 | 99 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 20.0 | 95 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 37.9 | 91 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 52.6 | 108 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 37.5 | 105 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 78.2 | 86 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 47.7 | 97 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 59.4 | 84 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 16.9 | 88 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 42.2 | 113 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 46.3 | 95 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 71.5 | 67 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 85.7 | 92 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 35.5 | 97 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 27.5 | 79 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 36.6 | 85 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 43.3 | 111 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 40.7 | 80 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 41.6 | 91 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 18.9 | 102 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 39.8 | 92 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 65.7 | 92 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 14.6 | 65 | 67-134 | L2 |
| Toluene | ug/m3 | 39.9 | 35.3 | 89 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 41.1 | 98 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 42.9 | 88 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 60.2 | 109 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 54.3 | 97 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 35.5 | 96 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.0 | 93 | 57-132 | |

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 10.8 | 10.2 | 6 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | ND | ND | | 25 | |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 87.3 | 85.2 | 2 | 25 | |
| Benzene | ug/m3 | ND | ND | | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | ND | ND | | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 4.8 | 4.5 | 7 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 3.4 | 3.2 | 7 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 94.7 | 93.0 | 2 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | ND | ND | | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | ND | ND | | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 5.6 | 5.4 | 3 | 25 | |
| n-Heptane | ug/m3 | ND | ND | | 25 | |
| n-Hexane | ug/m3 | 3.9 | 4.1 | 6 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | ND | ND | | 25 | |
| Propylene | ug/m3 | ND | ND | | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 11.8 | 11.4 | 3 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |

SAMPLE DUPLICATE: 623887

| Parameter | Units | 1094693001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 2.3 | 2.2 | 1 | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 1.8J | | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 4.4 | 4.2 | 6 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | 10.3 | 10.2 | 1 | 25 | |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 17.8 | 17.4 | 3 | 25 | |
| Benzene | ug/m3 | 2.9 | 2.9 | 0 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.3 | 1.3 | 1 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 24.1 | 23.8 | 1 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 21.9 | 25.8 | 17 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 2.3 | 2.5 | 9 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

SAMPLE DUPLICATE: 623887

| Parameter | Units | 1094693001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Ethanol | ug/m3 | 4.6 | 4.7 | 0 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 5.2 | 5.2 | 2 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 3.6 | 3.6 | 1 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 7.3 | 8.4 | 14 | 25 | |
| n-Hexane | ug/m3 | 18.9 | 22.6 | 18 | 25 | |
| Naphthalene | ug/m3 | 4.8 | 5.2 | 8 | 25 | |
| o-Xylene | ug/m3 | ND | ND | | 25 | |
| Propylene | ug/m3 | 10.8 | 23.6 | 74 | 25 | R1 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 135 | 135 | 1 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 7.1 | 7.1 | 0 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 4.8 | 4.9 | 4 | 25 | |
| Trichlorofluoromethane | ug/m3 | 6.3 | 6.2 | 1 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1094598001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1094598002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

| | |
|---|---|
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| R1 | RPD value was outside control limits. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660224 St. Louis Park
Pace Project No.: 1094598

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094598002** | **B-6824 Lake#1 (8')** | TO-15 | AIR/8563 | | |
| **1094598001** | **B-6504 Walker#2 (8')** | TO-15 | AIR/8568 | | |



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Data File: \\192.168.10.12\chem\10air7.i\052009.b\14021.D
Report Date: 21-May-2009 10:32

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 3
Lab Smp Id: 1094598001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 20-MAY-2009 22:03

Client SDG: 052009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 15869-87-1 | Octane, 2,2-dimethyl- | 13.514 | 14.3 | NJ |
| 2. | 62237-98-3 | Decane, 2,2,4-trimethyl- | 15.000 | 16.9 | NJ |
| 3. | 629-78-7 | Heptadecane | 15.170 | 72.5 | NJ |
| 4. | 17301-26-7 | Undecane, 2,9-dimethyl- | 15.446 | 17.7 | NJ |
| 5. | 3522-94-9 | Hexane, 2,2,5-trimethyl- | 15.554 | 56.5 | NJ |
| 6. | | Unknown | 15.610 | 66.9 | J |
| 7. | | Unknown | 15.829 | 13.0 | J |
| 8. | | Unknown | 15.902 | 45.4 | J |
| 9. | 921-47-1 | Hexane, 2,3,4-trimethyl- | 16.157 | 18.1 | NJ |
| 10. | 13151-34-3 | Decane, 3-methyl- | 16.252 | 18.8 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14021.D
Report Date: 21-May-2009 10:32

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\052009.b\14021.D
Lab Smp Id: 1094598001
Inj Date : 20-MAY-2009 22:03
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 3
Misc Info : 8568
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\052009.b\LOWTO15_140.m
Meth Date : 21-May-2009 09:03 dbrusky Quant Type: ISTD
Cal Date : 20-MAY-2009 16:20 Cal File: 14010.D
Als bottle: 21
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

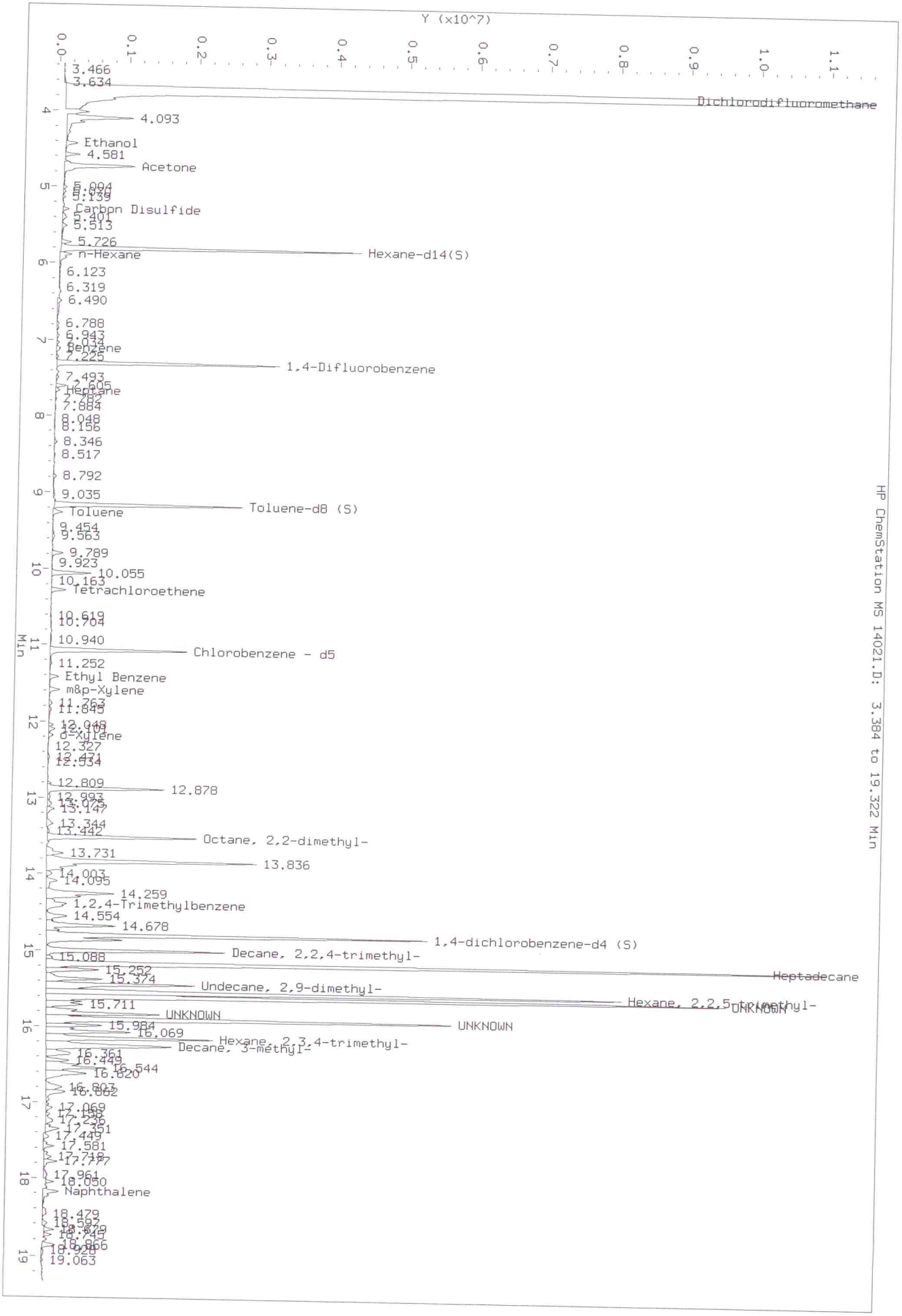
| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 50 Chlorobenzene - d5 | 11.071 | 4269668 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Octane, 2,2-dimethyl- | | | | CAS #: 15869-87-1 | | | |
| 13.514 | 4550380 | 10.6574560 | 14.3 | 72 | NBS75K.l | 8097 | 50 |
| Decane, 2,2,4-trimethyl- | | | | CAS #: 62237-98-3 | | | |
| 15.000 | 5396679 | 12.6395742 | 16.9 | 78 | NBS75K.l | 18998 | 50 |
| Heptadecane | | | | CAS #: 629-78-7 | | | |
| 15.170 | 23101010 | 54.1049266 | 72.5 | 72 | NBS75K.l | 71191 | 50 |
| Undecane, 2,9-dimethyl- | | | | CAS #: 17301-26-7 | | | |
| 15.446 | 5644116 | 13.2190955 | 17.7 | 78 | NBS75K.l | 18994 | 50 |
| Hexane, 2,2,5-trimethyl- | | | | CAS #: 3522-94-9 | | | |
| 15.554 | 18016041 | 42.1954101 | 56.5 | 72 | NBS75K.l | 5149 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.610 | 21330523 | 49.9582647 | 66.9 | 0 | | 0 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14021.D
Report Date: 21-May-2009 10:32

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.829 | 4128737 | 9.66992375 | 13.0 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.902 | 14471461 | 33.8936400 | 45.4 | 0 | | 0 | 50 |
| Hexane, 2,3,4-trimethyl- | | | | CAS #: 921-47-1 | | | |
| 16.157 | 5769509 | 13.5127805 | 18.1 | 83 | NBS75K.l | 65123 | 50 |
| Decane, 3-methyl- | | | | CAS #: 13151-34-3 | | | |
| 16.252 | 5976290 | 13.9970819 | 18.8 | 83 | NBS75K.l | 11604 | 50 |


Data File: \\192.168.10.12\chem\10air7.i\052009.b\14021.D
Injection Date: 20-MAY-2009 22:03
Instrument: 10air7.i
Client Sample ID:
HP ChemStation MS 14021.D: 3.384 to 19.322 Min
Y (x10^7)
Min
Dichlorodifluoromethane
Ethanol
Acetone
Carbon Disulfide
Hexane-d14(S)
n-Hexane
Benzene
1,4-Difluorobenzene
Heptane
Toluene-d8 (S)
Toluene
Tetrachloroethene
Chlorobenzene - d5
Ethyl Benzene
m&p-Xylene
o-Xylene
Octane, 2,2-dimethyl-
1,2,4-Trimethylbenzene
1,4-dichlorobenzene-d4 (S)
Decane, 2,2,4-trimethyl-
Heptadecane
Undecane, 2,9-dimethyl-
Hexane, 2,2,5-trimethyl-
UNKNOWN
Hexane, 2,3,4-trimethyl-
Decane, 3-methyl-
Naphthalene

Data File: \\192.168.10.12\chem\10air7.i\051809.b\13828.D
Report Date: 19-May-2009 10:20

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 1
Lab Smp Id: 1094598002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 18-MAY-2009 23:59

Client SDG: 051809.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.699 | 160 | J |
| 2. | 62016-28-8 | Octane, 2,2,6-trimethyl- | 13.521 | 25.8 | NJ |
| 3. | | Unknown | 13.842 | 35.7 | J |
| 4. | 2801-84-5 | Decane, 2,4-dimethyl- | 14.262 | 17.0 | NJ |
| 5. | 31081-18-2 | Nonane, 3-methyl-5-propyl- | 15.177 | 53.2 | NJ |
| 6. | 16747-32-3 | Pentane, 3-ethyl-2,2-dimeth | 15.561 | 55.0 | NJ |
| 7. | 17302-37-3 | Decane, 2,2-dimethyl- | 15.613 | 35.4 | NJ |
| 8. | | Unknown | 15.908 | 27.0 | J |
| 9. | 3891-98-3 | Dodecane, 2,6,10-trimethyl- | 16.262 | 13.0 | NJ |
| 10. | 31295-56-4 | Dodecane, 2,6,11-trimethyl- | 17.364 | 15.0 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\051809.b\13828.D
Report Date: 19-May-2009 10:20

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\051809.b\13828.D
Lab Smp Id: 1094598002
Inj Date : 18-MAY-2009 23:59
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 1
Misc Info : 8563
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\051809.b\LOWTO15_138.m
Meth Date : 18-May-2009 14:30 dbrusky Quant Type: ISTD
Cal Date : 18-MAY-2009 13:31 Cal File: 13808.D
Als bottle: 28
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

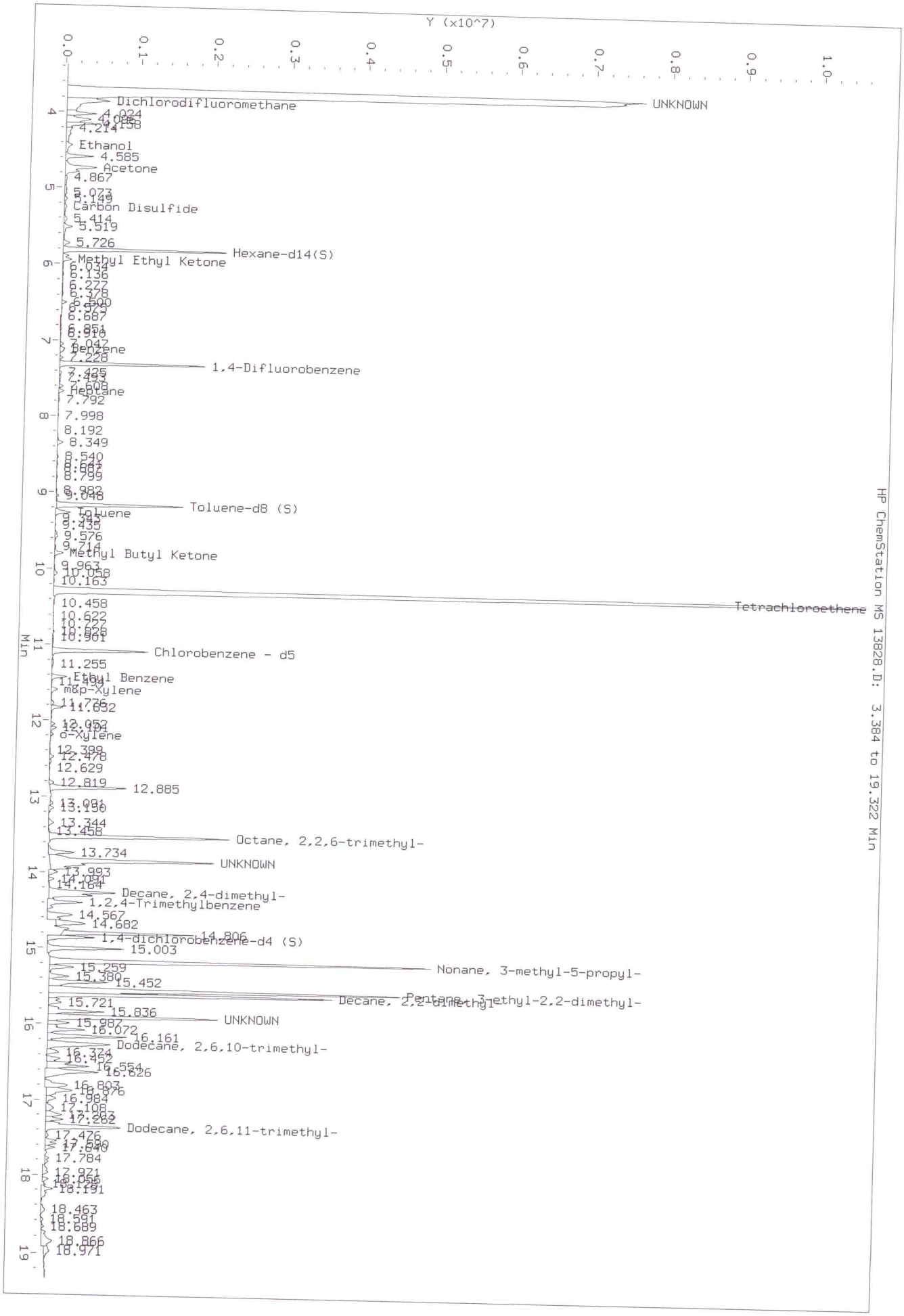
| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 3610088 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.074 | 2689304 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.699 | 43086540 | 119.350366 | 160 | 0 | | 0 | 35 |
| Octane, 2,2,6-trimethyl- | | | | CAS #: 62016-28-8 | | | |
| 13.521 | 5168251 | 19.2177999 | 25.8 | 72 | NBS75K.l | 11599 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.842 | 7166963 | 26.6498812 | 35.7 | 0 | | 0 | 50 |
| Decane, 2,4-dimethyl- | | | | CAS #: 2801-84-5 | | | |
| 14.262 | 3402110 | 12.6505200 | 17.0 | 72 | NBS75K.l | 15360 | 50 |
| Nonane, 3-methyl-5-propyl- | | | | CAS #: 31081-18-2 | | | |
| 15.177 | 10670351 | 39.6769985 | 53.2 | 72 | NBS75K.l | 19054 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\051809.b\13828.D
Report Date: 19-May-2009 10:20

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Pentane, 3-ethyl-2,2-dimethyl- | | | | CAS #: 16747-32-3 | | | |
| 15.561 | 11049629 | 41.0873181 | 55.0 | 72 | NBS75K.l | 5136 | 50 |
| Decane, 2,2-dimethyl- | | | | CAS #: 17302-37-3 | | | |
| 15.613 | 7114550 | 26.4549853 | 35.4 | 72 | NBS75K.l | 15358 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.908 | 5422317 | 20.1625273 | 27.0 | 0 | | 0 | 50 |
| Dodecane, 2,6,10-trimethyl- | | | | CAS #: 3891-98-3 | | | |
| 16.262 | 2610764 | 9.70795571 | 13.0 | 74 | NBS75K.l | 70270 | 50 |
| Dodecane, 2,6,11-trimethyl- | | | | CAS #: 31295-56-4 | | | |
| 17.364 | 3002047 | 11.1629156 | 15.0 | 78 | NBS75K.l | 25998 | 50 |


Data File: \\192.168.10.12\chem\10air7.i\051809.b\13828.D
Injection Date: 18-MAY-2009 23:59
Instrument: 10air7.i
Client Sample ID:
HP ChemStation MS 13828.D: 3.384 to 19.322 Min
Y (x10^7)
Min
Dichlorodifluoromethane
UNKNOWN
Ethanol
Acetone
Carbon Disulfide
Hexane-d14(S)
Methyl Ethyl Ketone
Benzene
1,4-Difluorobenzene
Heptane
Toluene-d8 (S)
Toluene
Methyl Butyl Ketone
Tetrachloroethene
Chlorobenzene - d5
Ethyl Benzene
m&p-Xylene
o-Xylene
Octane, 2,2,6-trimethyl-
UNKNOWN
Decane, 2,4-dimethyl-
1,2,4-Trimethylbenzene
1,4-dichlorobenzene-d4 (S)
Nonane, 3-methyl-5-propyl-
Decane, 2,2-dimethyl-
Pentane, 3-ethyl-2,2-dimethyl-
UNKNOWN
Dodecane, 2,6,10-trimethyl-
Dodecane, 2,6,11-trimethyl-

1094598

STS | AECOM

# Chain of Custody Record

№ 4224

Contact Person: Peter Rzepecki
Phone No. 763 852 4245 Office: Minneapolis
Project No. 0460024 PO No.
Project Name: St Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4224 Through 4224
Laboratory: Pace
Contact Person: Carol Davey
Phone No. 612 607 6436
Results Due: STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6504 Walker #2 (8') | 5/7 | 1014 | X | | 1 | Air | | X | | | | | TO-15 | 1094598001 |
| B-6824 Lake #1 (8') | ↓ | 1422 | | | 1 | ↓ | | X | | | | | ↓ | 002 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: | Date | Time | Delivery by: | Date | Time |
| Received by: | Date | Time | Relinquished by: JASON ROUTE | Date 5/7/09 | Time 1732 |
| Received by: pace | Date 5/7 | Time 1732 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Sample Condition Upon Receipt

Pace Analytical

Client Name: aecom

Project # 1094598

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____ Temp Blank: Yes ____ No ✓

Thermometer Used ~~80344042, 179425~~ Type of Ice: Wet Blue (None) ☐ Samples on ice, cooling process has begun

Cooler Temperature AMB Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/7/09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☒No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: air cans | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 2 CANS

Project Manager Review: OMD Date: 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

JL 5/8/09



F-ALL-C003rev.5, 5Aug2008

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 21, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St. Louis Park
Pace Project No.: 1094693

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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## CERTIFICATIONS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078



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## SAMPLE SUMMARY

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094693001** | **B6824 Lake#3 (8')** | Air | 05/08/09 09:06 | 05/08/09 15:32 |
| **1094693002** | **B6824 Lake#2 (8')** | Air | 05/08/09 10:30 | 05/08/09 15:32 |



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Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **1094693001** | **B6824 Lake#3 (8')** | TO-15 | DB1 | 60 |
| **1094693002** | **B6824 Lake#2 (8')** | TO-15 | DB1 | 60 |



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# PROJECT NARRATIVE

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Method:** **TO-15**
**Description:** TO15 MSV AIR
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
2 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: AIR/8568

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- LCS (Lab ID: 622595)
  - Tetrahydrofuran

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/8568

R1: RPD value was outside control limits.
- DUP (Lab ID: 623887)
  - Propylene

**Additional Comments:**

Sample Comments:

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- B6824 Lake#3 (8') (Lab ID: 1094693001)
- B6824 Lake#2 (8') (Lab ID: 1094693002)

This data package has been reviewed for quality and completeness and is approved for release.



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Sample: B6824 Lake#3 (8')** **Lab ID: 1094693001** Collected: 05/08/09 09:06 Received: 05/08/09 15:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **17.8** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/21/09 04:14 | 67-64-1 | |
| Benzene | **2.9** | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/21/09 04:14 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 04:14 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/21/09 04:14 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/21/09 04:14 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/21/09 04:14 | 106-99-0 | |
| 2-Butanone (MEK) | **4.4** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/21/09 04:14 | 78-93-3 | |
| Carbon disulfide | **1.3** | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/21/09 04:14 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/21/09 04:14 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/21/09 04:14 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/21/09 04:14 | 75-00-3 | |
| Chloroform | **24.1** | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/21/09 04:14 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/21/09 04:14 | 74-87-3 | |
| Cyclohexane | **21.9** | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/21/09 04:14 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/21/09 04:14 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/21/09 04:14 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 04:14 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 04:14 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 04:14 | 106-46-7 | |
| Dichlorodifluoromethane | **2.3** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/21/09 04:14 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/21/09 04:14 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/21/09 04:14 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 04:14 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 04:14 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 04:14 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/21/09 04:14 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/21/09 04:14 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/21/09 04:14 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 04:14 | 76-14-2 | |
| Ethanol | **4.6** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/21/09 04:14 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/21/09 04:14 | 141-78-6 | |
| Ethylbenzene | **5.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/21/09 04:14 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 04:14 | 622-96-8 | |
| n-Heptane | **7.3** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 04:14 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/21/09 04:14 | 87-68-3 | |
| n-Hexane | **18.9** | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/21/09 04:14 | 110-54-3 | |
| 2-Hexanone | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 04:14 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/21/09 04:14 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 04:14 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/21/09 04:14 | 1634-04-4 | |
| Naphthalene | **4.8** | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/21/09 04:14 | 91-20-3 | |
| 2-Propanol | **10.3** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 04:14 | 67-63-0 | |
| Propylene | **10.8** | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/21/09 04:14 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/21/09 04:14 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 04:14 | 79-34-5 | |
| Tetrachloroethene | **135** | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 04:14 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Sample: B6824 Lake#3 (8')** **Lab ID: 1094693001** Collected: 05/08/09 09:06 Received: 05/08/09 15:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/21/09 04:14 | 109-99-9 | L2 |
| Toluene | **7.1** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/21/09 04:14 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/21/09 04:14 | 120-82-1 | |
| 1,1,1-Trichloroethane | **2.3** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 04:14 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 04:14 | 79-00-5 | |
| Trichloroethene | **4.8** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 04:14 | 79-01-6 | |
| Trichlorofluoromethane | **6.3** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 04:14 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/21/09 04:14 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 04:14 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 04:14 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/21/09 04:14 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/21/09 04:14 | 75-01-4 | |
| m&p-Xylene | **3.6** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/21/09 04:14 | 1330-20-7 | |
| o-Xylene | ND | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/21/09 04:14 | 95-47-6 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Sample: B6824 Lake#2 (8')** **Lab ID: 1094693002** Collected: 05/08/09 10:30 Received: 05/08/09 15:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Acetone | **12.1** | ug/m3 | 0.64 | 0.32 | 1.34 | | 05/21/09 05:16 | 67-64-1 | |
| Benzene | **4.9** | ug/m3 | 0.87 | 0.44 | 1.34 | | 05/21/09 05:16 | 71-43-2 | |
| Bromodichloromethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 05:16 | 75-27-4 | |
| Bromoform | ND | ug/m3 | 2.8 | 1.4 | 1.34 | | 05/21/09 05:16 | 75-25-2 | |
| Bromomethane | ND | ug/m3 | 1.1 | 0.53 | 1.34 | | 05/21/09 05:16 | 74-83-9 | |
| 1,3-Butadiene | ND | ug/m3 | 0.60 | 0.30 | 1.34 | | 05/21/09 05:16 | 106-99-0 | |
| 2-Butanone (MEK) | **3.0** | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/21/09 05:16 | 78-93-3 | |
| Carbon disulfide | **1.0** | ug/m3 | 0.84 | 0.42 | 1.34 | | 05/21/09 05:16 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/m3 | 1.7 | 0.87 | 1.34 | | 05/21/09 05:16 | 56-23-5 | |
| Chlorobenzene | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/21/09 05:16 | 108-90-7 | |
| Chloroethane | ND | ug/m3 | 0.72 | 0.36 | 1.34 | | 05/21/09 05:16 | 75-00-3 | |
| Chloroform | **4.0** | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/21/09 05:16 | 67-66-3 | |
| Chloromethane | ND | ug/m3 | 0.56 | 0.28 | 1.34 | | 05/21/09 05:16 | 74-87-3 | |
| Cyclohexane | **6.3** | ug/m3 | 0.91 | 0.46 | 1.34 | | 05/21/09 05:16 | 110-82-7 | |
| Dibromochloromethane | ND | ug/m3 | 2.3 | 1.1 | 1.34 | | 05/21/09 05:16 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/21/09 05:16 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 05:16 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 05:16 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/m3 | 1.6 | 0.80 | 1.34 | | 05/21/09 05:16 | 106-46-7 | |
| Dichlorodifluoromethane | **2.7** | ug/m3 | 1.3 | 0.67 | 1.34 | | 05/21/09 05:16 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/21/09 05:16 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/m3 | 1.1 | 0.55 | 1.34 | | 05/21/09 05:16 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 05:16 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 05:16 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/m3 | 1.1 | 0.54 | 1.34 | | 05/21/09 05:16 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/m3 | 1.3 | 0.63 | 1.34 | | 05/21/09 05:16 | 78-87-5 | |
| cis-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/21/09 05:16 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/m3 | 1.2 | 0.62 | 1.34 | | 05/21/09 05:16 | 10061-02-6 | |
| Dichlorotetrafluoroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 05:16 | 76-14-2 | |
| Ethanol | **6.7** | ug/m3 | 2.5 | 1.1 | 1.34 | | 05/21/09 05:16 | 64-17-5 | |
| Ethyl acetate | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/21/09 05:16 | 141-78-6 | |
| Ethylbenzene | **12.1** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/21/09 05:16 | 100-41-4 | |
| 4-Ethyltoluene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 05:16 | 622-96-8 | |
| n-Heptane | **6.4** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 05:16 | 142-82-5 | |
| Hexachloro-1,3-butadiene | ND | ug/m3 | 2.9 | 1.5 | 1.34 | | 05/21/09 05:16 | 87-68-3 | |
| n-Hexane | **11.8** | ug/m3 | 0.96 | 0.48 | 1.34 | | 05/21/09 05:16 | 110-54-3 | |
| 2-Hexanone | **4.0** | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 05:16 | 591-78-6 | |
| Methylene Chloride | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/21/09 05:16 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/m3 | 1.1 | 0.56 | 1.34 | | 05/21/09 05:16 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/m3 | 0.98 | 0.49 | 1.34 | | 05/21/09 05:16 | 1634-04-4 | |
| Naphthalene | ND | ug/m3 | 3.6 | 1.8 | 1.34 | | 05/21/09 05:16 | 91-20-3 | |
| 2-Propanol | **9.4** | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 05:16 | 67-63-0 | |
| Propylene | ND | ug/m3 | 0.47 | 0.23 | 1.34 | | 05/21/09 05:16 | 115-07-1 | |
| Styrene | ND | ug/m3 | 1.2 | 0.58 | 1.34 | | 05/21/09 05:16 | 100-42-5 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/m3 | 1.9 | 0.94 | 1.34 | | 05/21/09 05:16 | 79-34-5 | |
| Tetrachloroethene | **1480** | ug/m3 | 18.8 | 9.4 | 13.4 | | 05/21/09 10:00 | 127-18-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

**Sample: B6824 Lake#2 (8')** **Lab ID: 1094693002** Collected: 05/08/09 10:30 Received: 05/08/09 15:32 Matrix: Air

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **TO15 MSV AIR** | Analytical Method: TO-15 | | | | | | | | |
| Tetrahydrofuran | ND | ug/m3 | 0.80 | 0.40 | 1.34 | | 05/21/09 05:16 | 109-99-9 | L2 |
| Toluene | **13.5** | ug/m3 | 1.0 | 0.52 | 1.34 | | 05/21/09 05:16 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/m3 | 1.3 | 0.66 | 1.34 | | 05/21/09 05:16 | 120-82-1 | |
| 1,1,1-Trichloroethane | **4.3** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 05:16 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 05:16 | 79-00-5 | |
| Trichloroethene | **1.9** | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 05:16 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/m3 | 1.5 | 0.74 | 1.34 | | 05/21/09 05:16 | 75-69-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/m3 | 2.1 | 1.1 | 1.34 | | 05/21/09 05:16 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 05:16 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/m3 | 3.4 | 1.7 | 1.34 | | 05/21/09 05:16 | 108-67-8 | |
| Vinyl acetate | ND | ug/m3 | 0.95 | 0.48 | 1.34 | | 05/21/09 05:16 | 108-05-4 | |
| Vinyl chloride | ND | ug/m3 | 0.70 | 0.35 | 1.34 | | 05/21/09 05:16 | 75-01-4 | |
| m&p-Xylene | **6.2** | ug/m3 | 2.4 | 1.2 | 1.34 | | 05/21/09 05:16 | 1330-20-7 | |
| o-Xylene | **2.2** | ug/m3 | 1.2 | 0.59 | 1.34 | | 05/21/09 05:16 | 95-47-6 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

QC Batch: AIR/8568 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 1094693001, 1094693002

METHOD BLANK: 622594 | Matrix: Air
Associated Lab Samples: 1094693001, 1094693002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | 1.6 | 05/20/09 19:27 | |
| 1,1-Dichloroethane | ug/m3 | ND | 0.82 | 05/20/09 19:27 | |
| 1,1-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | 0.99 | 05/20/09 19:27 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | 1.6 | 05/20/09 19:27 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 1,2-Dichloroethane | ug/m3 | ND | 0.82 | 05/20/09 19:27 | |
| 1,2-Dichloropropane | ug/m3 | ND | 0.94 | 05/20/09 19:27 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 1,3-Butadiene | ug/m3 | ND | 0.45 | 05/20/09 19:27 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | 1.2 | 05/20/09 19:27 | |
| 2-Butanone (MEK) | ug/m3 | ND | 0.60 | 05/20/09 19:27 | |
| 2-Hexanone | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| 2-Propanol | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 4-Ethyltoluene | ug/m3 | ND | 2.5 | 05/20/09 19:27 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| Acetone | ug/m3 | ND | 0.48 | 05/20/09 19:27 | |
| Benzene | ug/m3 | ND | 0.65 | 05/20/09 19:27 | |
| Bromodichloromethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Bromoform | ug/m3 | ND | 2.1 | 05/20/09 19:27 | |
| Bromomethane | ug/m3 | ND | 0.79 | 05/20/09 19:27 | |
| Carbon disulfide | ug/m3 | ND | 0.63 | 05/20/09 19:27 | |
| Carbon tetrachloride | ug/m3 | ND | 1.3 | 05/20/09 19:27 | |
| Chlorobenzene | ug/m3 | ND | 0.94 | 05/20/09 19:27 | |
| Chloroethane | ug/m3 | ND | 0.54 | 05/20/09 19:27 | |
| Chloroform | ug/m3 | ND | 0.99 | 05/20/09 19:27 | |
| Chloromethane | ug/m3 | ND | 0.42 | 05/20/09 19:27 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/20/09 19:27 | |
| Cyclohexane | ug/m3 | ND | 0.68 | 05/20/09 19:27 | |
| Dibromochloromethane | ug/m3 | ND | 1.7 | 05/20/09 19:27 | |
| Dichlorodifluoromethane | ug/m3 | ND | 1.0 | 05/20/09 19:27 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Ethanol | ug/m3 | ND | 1.9 | 05/20/09 19:27 | |
| Ethyl acetate | ug/m3 | ND | 0.73 | 05/20/09 19:27 | |
| Ethylbenzene | ug/m3 | ND | 0.88 | 05/20/09 19:27 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | 2.2 | 05/20/09 19:27 | |
| m&p-Xylene | ug/m3 | ND | 1.8 | 05/20/09 19:27 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

METHOD BLANK: 622594 Matrix: Air

Associated Lab Samples: 1094693001, 1094693002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Methyl-tert-butyl ether | ug/m3 | ND | 0.73 | 05/20/09 19:27 | |
| Methylene Chloride | ug/m3 | ND | 0.71 | 05/20/09 19:27 | |
| n-Heptane | ug/m3 | ND | 0.83 | 05/20/09 19:27 | |
| n-Hexane | ug/m3 | ND | 0.72 | 05/20/09 19:27 | |
| Naphthalene | ug/m3 | ND | 2.7 | 05/20/09 19:27 | |
| o-Xylene | ug/m3 | ND | 0.88 | 05/20/09 19:27 | |
| Propylene | ug/m3 | ND | 0.35 | 05/20/09 19:27 | |
| Styrene | ug/m3 | ND | 0.87 | 05/20/09 19:27 | |
| Tetrachloroethene | ug/m3 | ND | 1.4 | 05/20/09 19:27 | |
| Tetrahydrofuran | ug/m3 | ND | 0.60 | 05/20/09 19:27 | |
| Toluene | ug/m3 | ND | 0.77 | 05/20/09 19:27 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | 0.81 | 05/20/09 19:27 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | 0.92 | 05/20/09 19:27 | |
| Trichloroethene | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| Trichlorofluoromethane | ug/m3 | ND | 1.1 | 05/20/09 19:27 | |
| Vinyl acetate | ug/m3 | ND | 0.71 | 05/20/09 19:27 | |
| Vinyl chloride | ug/m3 | ND | 0.52 | 05/20/09 19:27 | |

LABORATORY CONTROL SAMPLE: 622595

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 57.2 | 56.1 | 98 | 55-127 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | 71.2 | 63.6 | 89 | 58-128 | |
| 1,1,2-Trichloroethane | ug/m3 | 56 | 47.7 | 85 | 58-126 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | 76.4 | 58.3 | 76 | 49-134 | |
| 1,1-Dichloroethane | ug/m3 | 41.2 | 34.9 | 85 | 52-129 | |
| 1,1-Dichloroethene | ug/m3 | 40.3 | 39.3 | 97 | 50-130 | |
| 1,2,4-Trichlorobenzene | ug/m3 | 74.7 | 53.9 | 72 | 30-150 | |
| 1,2,4-Trimethylbenzene | ug/m3 | 49.5 | 46.4 | 94 | 53-144 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | 81.3 | 75.1 | 92 | 57-137 | |
| 1,2-Dichlorobenzene | ug/m3 | 62.4 | 57.1 | 92 | 65-140 | |
| 1,2-Dichloroethane | ug/m3 | 44.9 | 40.9 | 91 | 54-125 | |
| 1,2-Dichloropropane | ug/m3 | 50.8 | 49.8 | 98 | 60-125 | |
| 1,3,5-Trimethylbenzene | ug/m3 | 49.5 | 48.1 | 97 | 54-139 | |
| 1,3-Butadiene | ug/m3 | 22.7 | 21.3 | 94 | 54-125 | |
| 1,3-Dichlorobenzene | ug/m3 | 64.2 | 58.6 | 91 | 62-140 | |
| 1,4-Dichlorobenzene | ug/m3 | 63 | 56.7 | 90 | 61-139 | |
| 2-Butanone (MEK) | ug/m3 | 30.9 | 28.0 | 90 | 47-138 | |
| 2-Hexanone | ug/m3 | 42.1 | 38.4 | 91 | 40-143 | |
| 2-Propanol | ug/m3 | 23.8 | 19.4 | 82 | 45-149 | |
| 4-Ethyltoluene | ug/m3 | 50 | 42.6 | 85 | 57-139 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | 42.5 | 37.2 | 88 | 54-132 | |
| Acetone | ug/m3 | 24.2 | 16.8 | 70 | 44-147 | |
| Benzene | ug/m3 | 32.8 | 29.5 | 90 | 60-125 | |
| Bromodichloromethane | ug/m3 | 68.1 | 62.9 | 92 | 53-130 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

LABORATORY CONTROL SAMPLE: 622595

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromoform | ug/m3 | 107 | 94.9 | 88 | 55-125 | |
| Bromomethane | ug/m3 | 39.9 | 37.5 | 94 | 53-132 | |
| Carbon disulfide | ug/m3 | 32.6 | 36.2 | 111 | 57-150 | |
| Carbon tetrachloride | ug/m3 | 64.6 | 63.4 | 98 | 53-125 | |
| Chlorobenzene | ug/m3 | 46.4 | 44.5 | 96 | 50-136 | |
| Chloroethane | ug/m3 | 26.6 | 25.4 | 96 | 55-130 | |
| Chloroform | ug/m3 | 48.5 | 47.8 | 99 | 56-125 | |
| Chloromethane | ug/m3 | 21 | 20.0 | 95 | 49-127 | |
| cis-1,2-Dichloroethene | ug/m3 | 41.5 | 37.9 | 91 | 58-127 | |
| cis-1,3-Dichloropropene | ug/m3 | 48.5 | 52.6 | 108 | 62-135 | |
| Cyclohexane | ug/m3 | 35.7 | 37.5 | 105 | 56-135 | |
| Dibromochloromethane | ug/m3 | 91 | 78.2 | 86 | 48-132 | |
| Dichlorodifluoromethane | ug/m3 | 49.3 | 47.7 | 97 | 54-130 | |
| Dichlorotetrafluoroethane | ug/m3 | 71.1 | 59.4 | 84 | 50-125 | |
| Ethanol | ug/m3 | 19.2 | 16.9 | 88 | 30-150 | |
| Ethyl acetate | ug/m3 | 37.4 | 42.2 | 113 | 70-141 | |
| Ethylbenzene | ug/m3 | 48.6 | 46.3 | 95 | 57-135 | |
| Hexachloro-1,3-butadiene | ug/m3 | 106 | 71.5 | 67 | 30-150 | |
| m&p-Xylene | ug/m3 | 92.7 | 85.7 | 92 | 61-135 | |
| Methyl-tert-butyl ether | ug/m3 | 36.7 | 35.5 | 97 | 56-130 | |
| Methylene Chloride | ug/m3 | 34.6 | 27.5 | 79 | 49-127 | |
| n-Heptane | ug/m3 | 42.9 | 36.6 | 85 | 57-133 | |
| n-Hexane | ug/m3 | 39.1 | 43.3 | 111 | 55-135 | |
| Naphthalene | ug/m3 | 50.6 | 40.7 | 80 | 30-150 | |
| o-Xylene | ug/m3 | 45.5 | 41.6 | 91 | 60-134 | |
| Propylene | ug/m3 | 18.6 | 18.9 | 102 | 63-147 | |
| Styrene | ug/m3 | 43.3 | 39.8 | 92 | 58-142 | |
| Tetrachloroethene | ug/m3 | 71.7 | 65.7 | 92 | 61-132 | |
| Tetrahydrofuran | ug/m3 | 22.5 | 14.6 | 65 | 67-134 | L2 |
| Toluene | ug/m3 | 39.9 | 35.3 | 89 | 56-132 | |
| trans-1,2-Dichloroethene | ug/m3 | 41.9 | 41.1 | 98 | 52-131 | |
| trans-1,3-Dichloropropene | ug/m3 | 48.9 | 42.9 | 88 | 62-131 | |
| Trichloroethene | ug/m3 | 55.2 | 60.2 | 109 | 68-150 | |
| Trichlorofluoromethane | ug/m3 | 56 | 54.3 | 97 | 52-142 | |
| Vinyl acetate | ug/m3 | 36.9 | 35.5 | 96 | 53-136 | |
| Vinyl chloride | ug/m3 | 26.8 | 25.0 | 93 | 57-132 | |

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 10.8 | 10.2 | 6 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | ND | ND | | 25 | |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 87.3 | 85.2 | 2 | 25 | |
| Benzene | ug/m3 | ND | ND | | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | ND | ND | | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | ND | ND | | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 4.8 | 4.5 | 7 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 3.4 | 3.2 | 7 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |
| Ethanol | ug/m3 | 94.7 | 93.0 | 2 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | ND | ND | | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | ND | ND | | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | 5.6 | 5.4 | 3 | 25 | |
| n-Heptane | ug/m3 | ND | ND | | 25 | |
| n-Hexane | ug/m3 | 3.9 | 4.1 | 6 | 25 | |
| Naphthalene | ug/m3 | ND | ND | | 25 | |
| o-Xylene | ug/m3 | ND | ND | | 25 | |
| Propylene | ug/m3 | ND | ND | | 25 | |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | ND | ND | | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 11.8 | 11.4 | 3 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |



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# QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

SAMPLE DUPLICATE: 623886

| Parameter | Units | 1094939001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | ND | ND | | 25 | |
| Trichlorofluoromethane | ug/m3 | ND | ND | | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |

SAMPLE DUPLICATE: 623887

| Parameter | Units | 1094693001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/m3 | 2.3 | 2.2 | 1 | 25 | |
| 1,1,2,2-Tetrachloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1,2-Trichlorotrifluoroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,1-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2,4-Trimethylbenzene | ug/m3 | ND | 1.8J | | 25 | |
| 1,2-Dibromoethane (EDB) | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloroethane | ug/m3 | ND | ND | | 25 | |
| 1,2-Dichloropropane | ug/m3 | ND | ND | | 25 | |
| 1,3,5-Trimethylbenzene | ug/m3 | ND | ND | | 25 | |
| 1,3-Butadiene | ug/m3 | ND | ND | | 25 | |
| 1,3-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 1,4-Dichlorobenzene | ug/m3 | ND | ND | | 25 | |
| 2-Butanone (MEK) | ug/m3 | 4.4 | 4.2 | 6 | 25 | |
| 2-Hexanone | ug/m3 | ND | ND | | 25 | |
| 2-Propanol | ug/m3 | 10.3 | 10.2 | 1 | 25 | |
| 4-Ethyltoluene | ug/m3 | ND | ND | | 25 | |
| 4-Methyl-2-pentanone (MIBK) | ug/m3 | ND | ND | | 25 | |
| Acetone | ug/m3 | 17.8 | 17.4 | 3 | 25 | |
| Benzene | ug/m3 | 2.9 | 2.9 | 0 | 25 | |
| Bromodichloromethane | ug/m3 | ND | ND | | 25 | |
| Bromoform | ug/m3 | ND | ND | | 25 | |
| Bromomethane | ug/m3 | ND | ND | | 25 | |
| Carbon disulfide | ug/m3 | 1.3 | 1.3 | 1 | 25 | |
| Carbon tetrachloride | ug/m3 | ND | ND | | 25 | |
| Chlorobenzene | ug/m3 | ND | ND | | 25 | |
| Chloroethane | ug/m3 | ND | ND | | 25 | |
| Chloroform | ug/m3 | 24.1 | 23.8 | 1 | 25 | |
| Chloromethane | ug/m3 | ND | ND | | 25 | |
| cis-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| cis-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Cyclohexane | ug/m3 | 21.9 | 25.8 | 17 | 25 | |
| Dibromochloromethane | ug/m3 | ND | ND | | 25 | |
| Dichlorodifluoromethane | ug/m3 | 2.3 | 2.5 | 9 | 25 | |
| Dichlorotetrafluoroethane | ug/m3 | ND | ND | | 25 | |



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## QUALITY CONTROL DATA

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

SAMPLE DUPLICATE: 623887

| Parameter | Units | 1094693001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Ethanol | ug/m3 | 4.6 | 4.7 | 0 | 25 | |
| Ethyl acetate | ug/m3 | ND | ND | | 25 | |
| Ethylbenzene | ug/m3 | 5.2 | 5.2 | 2 | 25 | |
| Hexachloro-1,3-butadiene | ug/m3 | ND | ND | | 25 | |
| m&p-Xylene | ug/m3 | 3.6 | 3.6 | 1 | 25 | |
| Methyl-tert-butyl ether | ug/m3 | ND | ND | | 25 | |
| Methylene Chloride | ug/m3 | ND | ND | | 25 | |
| n-Heptane | ug/m3 | 7.3 | 8.4 | 14 | 25 | |
| n-Hexane | ug/m3 | 18.9 | 22.6 | 18 | 25 | |
| Naphthalene | ug/m3 | 4.8 | 5.2 | 8 | 25 | |
| o-Xylene | ug/m3 | ND | ND | | 25 | |
| Propylene | ug/m3 | 10.8 | 23.6 | 74 | 25 | R1 |
| Styrene | ug/m3 | ND | ND | | 25 | |
| Tetrachloroethene | ug/m3 | 135 | 135 | 1 | 25 | |
| Tetrahydrofuran | ug/m3 | ND | ND | | 25 | |
| Toluene | ug/m3 | 7.1 | 7.1 | 0 | 25 | |
| trans-1,2-Dichloroethene | ug/m3 | ND | ND | | 25 | |
| trans-1,3-Dichloropropene | ug/m3 | ND | ND | | 25 | |
| Trichloroethene | ug/m3 | 4.8 | 4.9 | 4 | 25 | |
| Trichlorofluoromethane | ug/m3 | 6.3 | 6.2 | 1 | 25 | |
| Vinyl acetate | ug/m3 | ND | ND | | 25 | |
| Vinyl chloride | ug/m3 | ND | ND | | 25 | |



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# QUALIFIERS

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## SAMPLE QUALIFIERS

Sample: 1094693001

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 1094693002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

## ANALYTE QUALIFIERS

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

R1 RPD value was outside control limits.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St. Louis Park
Pace Project No.: 1094693

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094693001** | **B6824 Lake#3 (8')** | TO-15 | AIR/8568 | | |
| **1094693002** | **B6824 Lake#2 (8')** | TO-15 | AIR/8568 | | |



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Data File: \\192.168.10.12\chem\10air7.i\052009.b\14033.D
Report Date: 21-May-2009 10:34

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 5
Lab Smp Id: 1094693001
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 21-MAY-2009 04:14

Client SDG: 052009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.709 | 135 | J |
| 2. | | Unknown | 13.518 | 22.4 | J |
| 3. | | Unknown | 13.839 | 21.9 | J |
| 4. | 17312-55-9 | Decane, 3,8-dimethyl- | 14.259 | 13.4 | NJ |
| 5. | 62238-11-3 | Decane, 2,3,5-trimethyl- | 15.170 | 41.4 | NJ |
| 6. | | Unknown | 15.551 | 38.9 | J |
| 7. | 62108-31-0 | Heptane, 4-ethyl-2,2,6,6-te | 15.610 | 31.3 | NJ |
| 8. | | Unknown | 15.902 | 21.0 | J |
| 9. | 563-16-6 | Hexane, 3,3-dimethyl- | 16.252 | 9.56 | NJ |
| 10. | 74645-98-0 | Dodecane, 2,7,10-trimethyl- | 17.358 | 10.8 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14033.D
Report Date: 21-May-2009 10:34

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\052009.b\14033.D
Lab Smp Id: 1094693001
Inj Date : 21-MAY-2009 04:14
Operator : DB1 Inst ID: 10air7.i
Smp Info : Sample 5
Misc Info : 8568
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\052009.b\LOWTO15_140.m
Meth Date : 21-May-2009 09:03 dbrusky Quant Type: ISTD
Cal Date : 20-MAY-2009 16:20 Cal File: 14010.D
Als bottle: 33
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10VOA10

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

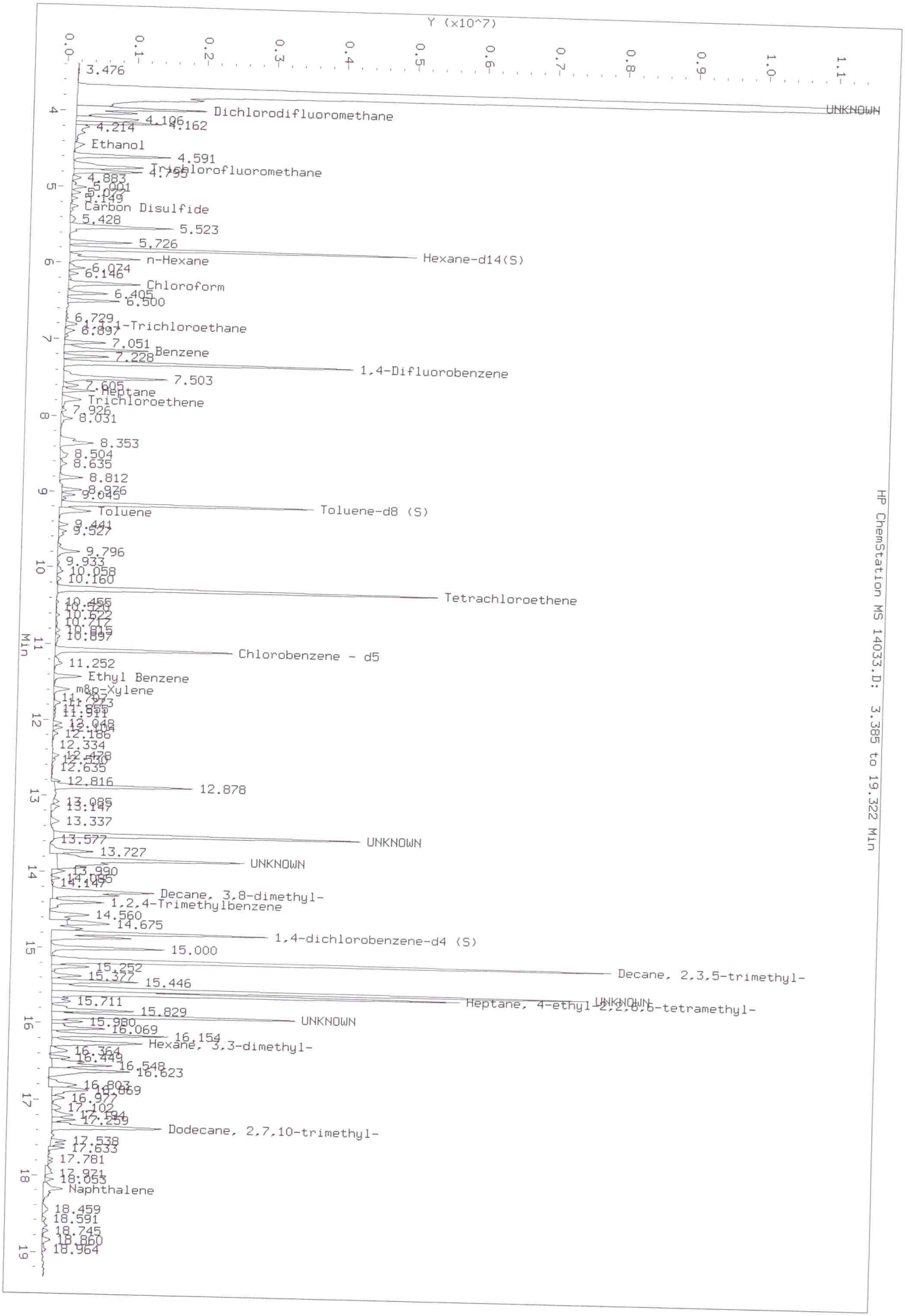
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.310 | 7895697 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 5605977 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.709 | 79666038 | 100.898034 | 135 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 13.518 | 9367579 | 16.7099833 | 22.4 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 13.839 | 9177908 | 16.3716464 | 21.9 | 0 | | 0 | 50 |
| Decane, 3,8-dimethyl- | | | | CAS #: 17312-55-9 | | | |
| 14.259 | 5601895 | 9.99271754 | 13.4 | 72 | NBS75K.l | 15351 | 50 |
| Decane, 2,3,5-trimethyl- | | | | CAS #: 62238-11-3 | | | |
| 15.170 | 17312178 | 30.8816407 | 41.4 | 78 | NBS75K.l | 19043 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14033.D
Report Date: 21-May-2009 10:34

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 15.551 | 16284777 | 29.0489523 | 38.9 | 0 | | 0 | 50 |
| Heptane, 4-ethyl-2,2,6,6-tetramethyl- | | | | CAS #: 62108-31-0 | | | |
| 15.610 | 13086241 | 23.3433702 | 31.3 | 72 | NBS75K.l | 19042 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.902 | 8769817 | 15.6436898 | 21.0 | 0 | | 0 | 50 |
| Hexane, 3,3-dimethyl- | | | | CAS #: 563-16-6 | | | |
| 16.252 | 3999102 | 7.13363866 | 9.56 | 78 | NBS75K.l | 3095 | 50 |
| Dodecane, 2,7,10-trimethyl- | | | | CAS #: 74645-98-0 | | | |
| 17.358 | 4500355 | 8.02777848 | 10.8 | 78 | NBS75K.l | 26005 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14033.D
Injection Date: 21-MAY-2009 04:14
Instrument: 10air7.i
Client Sample ID:




HP ChemStation MS 14033.D: 3.385 to 19.322 Min

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14035.D
Report Date: 21-May-2009 10:35

Pace Analytical Services

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Sample 7
Lab Smp Id: 1094693002
Operator : DB1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 21-MAY-2009 05:16

Client SDG: 052009.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Unknown | 3.690 | 146 | J |
| 2. | | Unknown | 4.014 | 7.54 | J |
| 3. | | Unknown | 4.149 | 9.90 | J |
| 4. | 78-78-4 | Butane, 2-methyl- | 4.578 | 6.52 | NJ |
| 5. | 62238-11-3 | Decane, 2,3,5-trimethyl- | 15.167 | 32.1 | NJ |
| 6. | 16747-26-5 | Hexane, 2,2,4-trimethyl- | 15.551 | 22.9 | NJ |
| 7. | 3522-94-9 | Hexane, 2,2,5-trimethyl- | 15.607 | 23.5 | NJ |
| 8. | | Unknown | 15.899 | 16.1 | J |
| 9. | | Unknown | 16.154 | 7.02 | J |
| 10. | 3891-98-3 | Dodecane, 2,6,10-trimethyl- | 16.253 | 6.61 | NJ |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14035.D
Report Date: 21-May-2009 10:35

Pace Analytical Services

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10air7.i\052009.b\14035.D
Lab Smp Id: 1094693002
Inj Date : 21-MAY-2009 05:16
Operator : DB1
Smp Info : Sample 7
Misc Info : 8568
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10air7.i\052009.b\LOWTO15_140.m
Meth Date : 21-May-2009 09:03 dbrusky
Cal Date : 20-MAY-2009 16:20
Als bottle: 35
Dil Factor: 1.34000
Integrator: HP RTE
Target Version: 4.14
Processing Host: 10VOA10

Inst ID: 10air7.i
Quant Type: ISTD
Cal File: 14010.D
Compound Sublist: all.sub

Concentration Formula: Amt * DF * Uf * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.340 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Cpnd Variable | | Local Compound Variable |

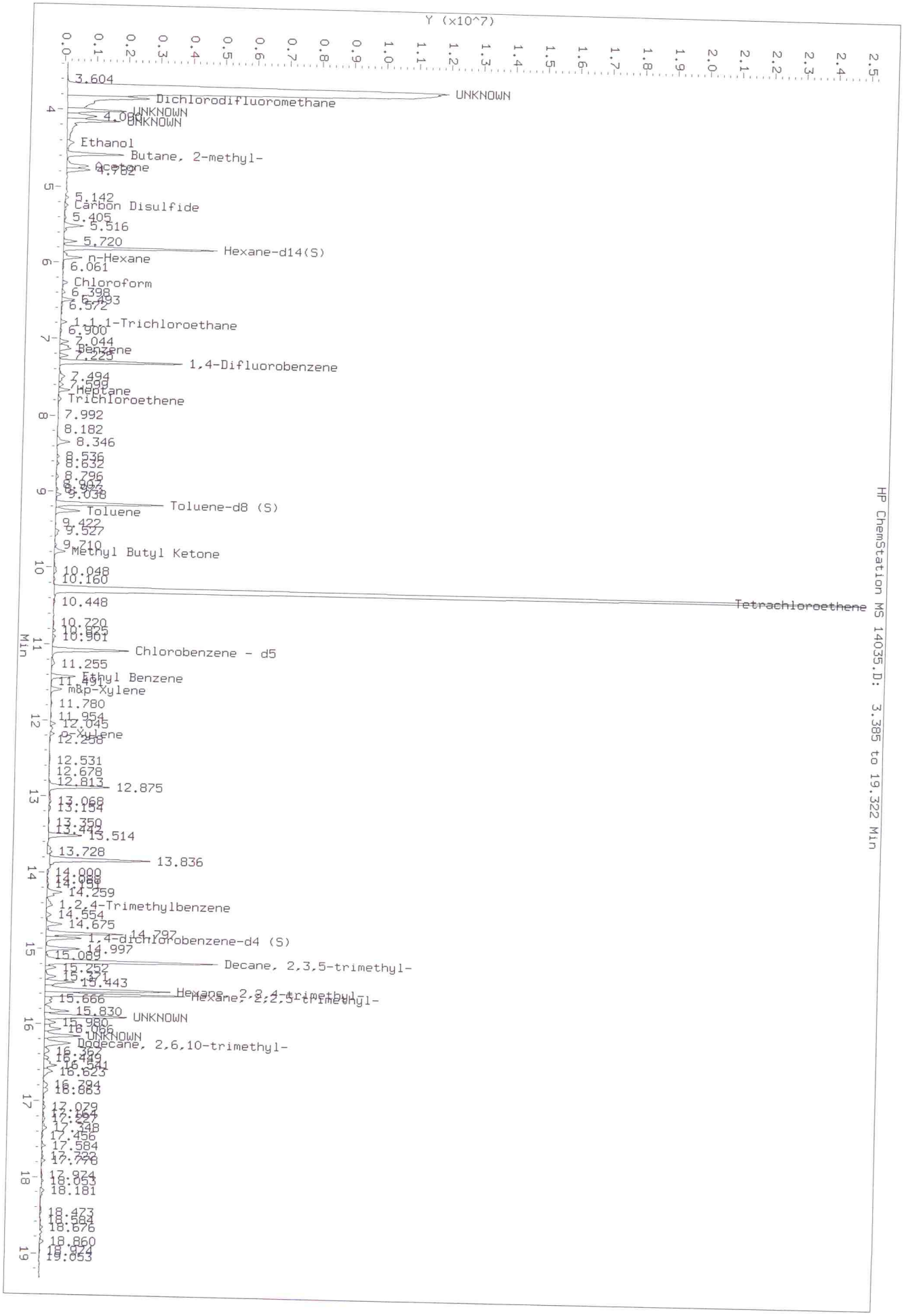
| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 35 1,4-Difluorobenzene | 7.303 | 7290195 | 10.000 |
| * 50 Chlorobenzene - d5 | 11.071 | 5177304 | 10.000 |

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Unknown | | | | CAS #: | | | |
| 3.690 | 79322787 | 108.807493 | 146 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.014 | 4102638 | 5.62761086 | 7.54 | 0 | | 0 | 35 |
| Unknown | | | | CAS #: | | | |
| 4.149 | 5386271 | 7.38837699 | 9.90 | 0 | | 0 | 35 |
| Butane, 2-methyl- | | | | CAS #: 78-78-4 | | | |
| 4.578 | 3549919 | 4.86944304 | 6.52 | 90 | NBS75K.l | 62517 | 35 |
| Decane, 2,3,5-trimethyl- | | | | CAS #: 62238-11-3 | | | |
| 15.167 | 12405652 | 23.9616045 | 32.1 | 78 | NBS75K.l | 19043 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14035.D
Report Date: 21-May-2009 10:35

| RT | AREA | CONCENTRATIONS ON-COL( ppbv) | FINAL( ppbv) | QUAL | QUANT LIBRARY | LIB ENTRY | CPND # |
|---|---|---|---|---|---|---|---|
| Hexane, 2,2,4-trimethyl- | | | | CAS #: 16747-26-5 | | | |
| 15.551 | 8832487 | 17.0600117 | 22.9 | 72 | NBS75K.l | 65103 | 50 |
| Hexane, 2,2,5-trimethyl- | | | | CAS #: 3522-94-9 | | | |
| 15.607 | 9075474 | 17.5293432 | 23.5 | 72 | NBS75K.l | 65127 | 50 |
| Unknown | | | | CAS #: | | | |
| 15.899 | 6212916 | 12.0002908 | 16.1 | 0 | | 0 | 50 |
| Unknown | | | | CAS #: | | | |
| 16.154 | 2713513 | 5.24116912 | 7.02 | 0 | | 0 | 50 |
| Dodecane, 2,6,10-trimethyl- | | | | CAS #: 3891-98-3 | | | |
| 16.253 | 2554399 | 4.93384003 | 6.61 | 83 | NBS75K.l | 70270 | 50 |

Data File: \\192.168.10.12\chem\10air7.i\052009.b\14035.D
Injection Date: 21-MAY-2009 05:16
Instrument: 10air7.i
Client Sample ID:



STS | AECOM

# Chain of Custody Record

* MRCA

№ 4221 1094693

Contact Person: Peter Rzepecki
Phone No.: 763 852 4245 Office: Minneapolis
Project No.: 04660024 PO No.:
Project Name: St. Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4221 Through 4221
Laboratory: Pace
Contact Person: Carol Davy
Phone No.: 612 607-6436
Results Due: STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6824 Lake #3 (8') | 5/8 | 9:06 | X | | 1 | Air | | X | <1 | | | | TO-15 | 1094693001 |
| B6824 Lake #2 (8') | ↓ | 10:30 | | | | ↓ | | X | | | | | ↓ | 002 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Collected by: JASON RAUE | Date 5/8/09 | Time See Above | Delivery by: | Date | Time |
| Received by: Pace | Date 5/8/09 | Time 1532 | Relinquished by: JASON RAUE | Date 5/8/09 | Time 15:30 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T=4.8

# Sample Condition Upon Receipt

Pace Analytical

Client Name: STS/AECOM Project # 1094693

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other _____ Temp Blank: Yes ____ No X

Thermometer Used ~~80344042, 179425~~ Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature Amb Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5-8-09 JL

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: AIR (CAN) | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 2 CANS

Project Manager Review: RLN 5/8/09 Date: 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)



F-ALL-C003rev.5, 5Aug2008

**Pace Analytical Services, Inc.**
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

May 21, 2009

Peter Rzepecki
AECOM
161 Cheshire Lane North
Suite 500
Minneapolis, MN 55441

RE: Project: 04660024 St Louis Park
Pace Project No.: 1094695

Dear Peter Rzepecki:
Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**



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Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Minnesota Certification IDs**

Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

**Green Bay Certification IDs**

Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11887
New York Certification #: 11888
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948



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Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: 04660024 St Louis Park
Pace Project No.: 1094695

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **1094695001** | **B6824 Lake #3 (44')** | Solid | 05/08/09 10:00 | 05/08/09 15:32 |
| **1094695002** | **B6824 Lake #2 (44')** | Solid | 05/08/09 13:48 | 05/08/09 15:32 |



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(612)607-1700

## SAMPLE ANALYTE COUNT

Project: 04660024 St Louis Park
Pace Project No.: 1094695

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **1094695001** | **B6824 Lake #3 (44')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |
| **1094695002** | **B6824 Lake #2 (44')** | % Moisture | MWD | 1 | PASI-M |
| | | EPA 8260 | JJB | 71 | PASI-G |



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(612)607-1700

# PROJECT NARRATIVE

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Method:** **% Moisture**
**Description:** Dry Weight
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
2 samples were analyzed for % Moisture. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**



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# PROJECT NARRATIVE

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Method:** **EPA 8260**
**Description:** 8260 MSV 5035 Low Level
**Client:** AECOM
**Date:** May 21, 2009

**General Information:**
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/4431

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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Minneapolis, MN 55414
(612)607-1700

# ANALYTICAL RESULTS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Sample: B6824 Lake #3 (44')** **Lab ID: 1094695001** Collected: 05/08/09 10:00 Received: 05/08/09 15:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **12.5** | % | 0.10 | 0.10 | 1 | | 05/14/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 17.0 | 5.7 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 4.2 | 1.4 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 107-05-1 | |
| Benzene | ND | ug/kg | 4.2 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.2 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.2 | 0.93 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.2 | 0.30 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.2 | 0.84 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 4.2 | 0.96 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 4.2 | 1.6 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.2 | 0.56 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.2 | 0.43 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.2 | 0.29 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.2 | 0.68 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.2 | 0.17 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 4.2 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.2 | 0.46 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 4.2 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.2 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.2 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.2 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.2 | 0.60 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.2 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.2 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.2 | 0.28 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.2 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.2 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 4.2 | 0.68 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.2 | 0.59 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.2 | 0.49 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.2 | 0.45 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.2 | 0.85 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.2 | 0.64 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 4.2 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.2 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.2 | 0.68 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.2 | 0.63 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.2 | 0.90 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.2 | 0.46 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.2 | 0.45 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 4.2 | 0.96 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 4.2 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.2 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Sample: B6824 Lake #3 (44')** **Lab ID: 1094695001** Collected: 05/08/09 10:00 Received: 05/08/09 15:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.2 | 0.60 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.2 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 4.2 | 0.34 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 4.2 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.2 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.2 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.2 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.2 | 0.099 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.2 | 0.37 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.2 | 0.63 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.2 | 0.78 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 4.2 | 1.0 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 109-99-9 | |
| Toluene | ND | ug/kg | 4.2 | 0.72 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.2 | 0.59 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.2 | 0.34 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.2 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.2 | 0.61 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.2 | 0.49 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.2 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.2 | 1.2 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4.2 | 0.92 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.2 | 0.13 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.2 | 0.22 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 4.2 | 0.74 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 8.5 | 0.91 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.2 | 0.48 | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 95-47-6 | |
| Dibromofluoromethane (S) | 86 | % | 63-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 1868-53-7 | |
| Toluene-d8 (S) | 100 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:06 | 460-00-4 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Sample: B6824 Lake #2 (44')** **Lab ID: 1094695002** Collected: 05/08/09 13:48 Received: 05/08/09 15:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Dry Weight** | Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | **3.7** | % | 0.10 | 0.10 | 1 | | 05/14/09 00:00 | | |
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 15.5 | 5.1 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 67-64-1 | |
| Allyl chloride | ND | ug/kg | 3.9 | 1.3 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 107-05-1 | |
| Benzene | ND | ug/kg | 3.9 | 0.48 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.9 | 0.40 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.9 | 0.84 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.9 | 0.27 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.9 | 0.76 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 3.9 | 0.87 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 3.9 | 1.4 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.9 | 0.51 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.9 | 0.39 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.9 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.9 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.9 | 0.16 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 3.9 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 3.9 | 0.66 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.9 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.9 | 0.94 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.9 | 0.47 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.9 | 0.26 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 3.9 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.9 | 0.53 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.9 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.9 | 0.41 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.77 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.9 | 0.58 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/kg | 3.9 | 0.52 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.9 | 0.49 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.9 | 0.62 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.9 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.9 | 0.82 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.42 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.9 | 0.41 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/kg | 3.9 | 0.88 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 60-29-7 | |
| Ethylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.9 | 0.60 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 87-68-3 | |



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# ANALYTICAL RESULTS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

**Sample: B6824 Lake #2 (44')** **Lab ID: 1094695002** Collected: 05/08/09 13:48 Received: 05/08/09 15:32 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV 5035 Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.9 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.9 | 0.48 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 3.9 | 0.31 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 3.9 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.9 | 0.43 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.9 | 0.48 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.9 | 0.090 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.34 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.9 | 0.57 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 79-34-5 | |
| Tetrachloroethene | **5.9** | ug/kg | 3.9 | 0.71 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/kg | 3.9 | 0.91 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 109-99-9 | |
| Toluene | ND | ug/kg | 3.9 | 0.65 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.9 | 0.54 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.9 | 0.31 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.9 | 0.60 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.9 | 0.55 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.9 | 0.44 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.9 | 0.68 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.9 | 1.1 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 3.9 | 0.83 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.9 | 0.12 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.9 | 0.20 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 108-67-8 | |
| Vinyl chloride | ND | ug/kg | 3.9 | 0.67 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.7 | 0.83 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.9 | 0.43 | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 95-47-6 | |
| Dibromofluoromethane (S) | 91 | % | 63-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 1868-53-7 | |
| Toluene-d8 (S) | 100 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | 05/11/09 09:10 | 05/12/09 12:30 | 460-00-4 | |



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# QUALITY CONTROL DATA

Project: 04660024 St Louis Park
Pace Project No.: 1094695

QC Batch: MSV/4431 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035 Low Level
Associated Lab Samples: 1094695001, 1094695002

METHOD BLANK: 156554 | Matrix: Solid
Associated Lab Samples: 1094695001, 1094695002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1,2-Trichlorotrifluoroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2-Butanone (MEK) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Acetone | ug/kg | ND | 20.0 | 05/12/09 08:58 | |
| Allyl chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Benzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromoform | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Bromomethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloroethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloroform | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Chloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dibromomethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St Louis Park
Pace Project No.: 1094695

METHOD BLANK: 156554 Matrix: Solid

Associated Lab Samples: 1094695001, 1094695002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Dichlorofluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Diethyl ether (Ethyl ether) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 05/12/09 08:58 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Methylene Chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Naphthalene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| o-Xylene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Styrene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Tetrahydrofuran | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Toluene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Trichloroethene | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| Vinyl chloride | ug/kg | ND | 5.0 | 05/12/09 08:58 | |
| 4-Bromofluorobenzene (S) | % | 95 | 70-130 | 05/12/09 08:58 | |
| Dibromofluoromethane (S) | % | 81 | 63-130 | 05/12/09 08:58 | |
| Toluene-d8 (S) | % | 101 | 70-130 | 05/12/09 08:58 | |

LABORATORY CONTROL SAMPLE & LCSD: 156555 156556

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/kg | 50 | 48.0 | 47.5 | 96 | 95 | 70-130 | .9 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 37.1 | 35.9 | 74 | 72 | 70-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 49.7 | 49.4 | 99 | 99 | 70-130 | .7 | 20 | |
| 1,1-Dichloroethane | ug/kg | 50 | 42.9 | 42.4 | 86 | 85 | 67-137 | 1 | 20 | |
| 1,1-Dichloroethene | ug/kg | 50 | 52.7 | 51.3 | 105 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichloroethane | ug/kg | 50 | 42.7 | 42.8 | 85 | 86 | 63-134 | .3 | 20 | |
| 1,2-Dichloropropane | ug/kg | 50 | 47.0 | 45.5 | 94 | 91 | 70-130 | 3 | 20 | |
| 2-Butanone (MEK) | ug/kg | 50 | 36.4 | 40.3 | 73 | 81 | 35-150 | 10 | 42 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 50 | 42.8 | 43.4 | 86 | 87 | 50-150 | 1 | 20 | |
| Acetone | ug/kg | 50 | 32.9 | 34.6 | 66 | 69 | 10-197 | 5 | 85 | |
| Benzene | ug/kg | 50 | 45.1 | 45.8 | 90 | 92 | 70-130 | 1 | 20 | |
| Bromodichloromethane | ug/kg | 50 | 49.1 | 48.7 | 98 | 97 | 70-130 | .8 | 20 | |
| Bromoform | ug/kg | 50 | 53.3 | 52.1 | 107 | 104 | 64-137 | 2 | 20 | |



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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: 04660024 St Louis Park
Pace Project No.: 1094695

LABORATORY CONTROL SAMPLE & LCSD: 156555 156556

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | ug/kg | 50 | 50.4 | 50.6 | 101 | 101 | 66-136 | .4 | 20 | |
| Carbon tetrachloride | ug/kg | 50 | 48.3 | 48.3 | 97 | 97 | 70-130 | .1 | 20 | |
| Chlorobenzene | ug/kg | 50 | 54.1 | 55.2 | 108 | 110 | 70-130 | 2 | 20 | |
| Chloroethane | ug/kg | 50 | 48.1 | 47.2 | 96 | 94 | 59-140 | 2 | 20 | |
| Chloroform | ug/kg | 50 | 45.0 | 44.7 | 90 | 89 | 69-130 | .5 | 20 | |
| Chloromethane | ug/kg | 50 | 40.2 | 39.3 | 80 | 79 | 27-141 | 2 | 20 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 46.7 | 46.3 | 93 | 93 | 70-130 | 1 | 20 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 49.4 | 48.5 | 99 | 97 | 70-130 | 2 | 20 | |
| Dibromochloromethane | ug/kg | 50 | 48.6 | 49.1 | 97 | 98 | 70-130 | 1 | 20 | |
| Ethylbenzene | ug/kg | 50 | 52.0 | 53.0 | 104 | 106 | 70-130 | 2 | 20 | |
| m&p-Xylene | ug/kg | 100 | 111 | 112 | 111 | 112 | 70-130 | .9 | 20 | |
| Methylene Chloride | ug/kg | 50 | 45.0 | 43.8 | 90 | 88 | 70-130 | 3 | 20 | |
| o-Xylene | ug/kg | 50 | 53.3 | 53.6 | 107 | 107 | 70-130 | .7 | 20 | |
| Styrene | ug/kg | 50 | 50.1 | 50.7 | 100 | 101 | 70-130 | 1 | 20 | |
| Tetrachloroethene | ug/kg | 50 | 56.9 | 58.3 | 114 | 117 | 67-139 | 2 | 20 | |
| Toluene | ug/kg | 50 | 53.4 | 53.4 | 107 | 107 | 70-130 | .005 | 20 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 47.5 | 47.6 | 95 | 95 | 70-130 | .2 | 20 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 48.1 | 47.7 | 96 | 95 | 70-130 | .9 | 20 | |
| Trichloroethene | ug/kg | 50 | 56.5 | 55.8 | 113 | 112 | 70-130 | 1 | 20 | |
| Vinyl chloride | ug/kg | 50 | 45.5 | 44.9 | 91 | 90 | 65-142 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | 94 | 96 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | 82 | 81 | 63-130 | | | |
| Toluene-d8 (S) | % | | | | 102 | 102 | 70-130 | | | |



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(612)607-1700

## QUALITY CONTROL DATA

Project: 04660024 St Louis Park
Pace Project No.: 1094695

QC Batch: MPRP/15692 | Analysis Method: % Moisture
QC Batch Method: % Moisture | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 1094695001, 1094695002

SAMPLE DUPLICATE: 620501

| Parameter | Units | 1094772002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 9.2 | 9.3 | 2 | 30 | |

SAMPLE DUPLICATE: 620502

| Parameter | Units | 1094696006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 10.6 | 10.4 | 2 | 30 | |



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# QUALIFIERS

Project: 04660024 St Louis Park
Pace Project No.: 1094695

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |
| PASI-M | Pace Analytical Services - Minneapolis |

## BATCH QUALIFIERS

Batch: MSV/4431

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04660024 St Louis Park
Pace Project No.: 1094695

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **1094695001** | **B6824 Lake #3 (44')** | EPA 8260 | MSV/4412 | EPA 8260 | MSV/4431 |
| **1094695002** | **B6824 Lake #2 (44')** | EPA 8260 | MSV/4412 | EPA 8260 | MSV/4431 |
| **1094695001** | **B6824 Lake #3 (44')** | % Moisture | MPRP/15692 | | |
| **1094695002** | **B6824 Lake #2 (44')** | % Moisture | MPRP/15692 | | |



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STS | AECOM

# Chain of Custody Record

№ 4220 1094695

Contact Person: Peter Rzepecki
Phone No. 763 852 4245 Office: Minneapolis
Project No. 04660024 PO No.
Project Name: St Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4220 Through 4220
Laboratory: Pace
Contact Person: Carol Davy
Phone No. 612-607-6436
Results Due: STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6824 Lake #3 (44') | 5/8 | 10:00 | X | | 4 | Soil | 3 | 1 | | | | | TerraCore VOCs (8260) | 001 |
| B6824 Lake #2 (44') | ↓ | 13:48 | X | | 4 | ↓ | 3 | 1 | | | | | ↓ | 002 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Jason Rowe | Date 5/8/09 | Time See Above | Delivery by: | Date | Time |
| Received by: Hunter Pace | Date 5/8/09 | Time 1532 | Relinquished by: Jason Rowe | Date 5/8/09 | Time 15:30 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

T-4 8

# Sample Condition Upon Receipt

Pace Analytical

Client Name: STS/AECOM Project # 1094695

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Foam Temp Blank: Yes X No _____

Thermometer Used ~~80344042~~, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.8°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/8/09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☒Yes ☐No ☐N/A | 6. DI - TERRACORE |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev 5-8-09



F-ALLC003rev.5, 5Aug2008

# Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 1094695 **Workorder Name:** 04660024 St Louis Park **Owner Received Date:** 5/8/2009 **Results Requested By:** 5/21/2009

| Report To | Subcontract To |
|---|---|
| Carol Davy<br>Pace Analytical Services, Inc.<br>1700 Elm Street, Suite 200<br>Minneapolis, MN 55414<br>Phone (612)607-1700<br>Fax (612)607-6444 | Pace Analytical Green Bay<br>1241 Bellevue Street<br>Suite 9<br>Green Bay, WI 54302<br>Phone (920)469-2436 |

Requested Analysis: Lauryl 8260

| | Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: MeOH | | | | | | Lauryl 8260 | | | | | | | | | | | | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | 1 | B6824 Lake #3 (44') | 5/8/2009 10:00 | 1094695001 | Solid | 1 | | | | | | X | | | | | | | | | | | | 3&6 5/11/09 8-40mlE |
| 002 | 2 | B6824 Lake #2 (44') | 5/8/2009 13:48 | 1094695002 | Solid | 1 | | | | | | X | | | | | | | | | | | | ↓ |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Carol Davy / Pace MN | 5/8/09 1645 | Walton | |
| 2 | Walton | 5/9/09 910 | [illegible] | 5/9/09 910 |
| 3 | | | | |

Comments: Dry ice

4017084

Cooler Temperature on Receipt _____ °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

Pace Analytical

# Sample Condition Upon Receipt

4017084

Client Name: STS/AECOM Project # 10946995

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other foam Temp Blank: Yes X No _____

Thermometer Used 80344042, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.8°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/8/09

Temp should be above freezing to 6°C

Comments:

| | | |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☒Yes ☐No ☐N/A | 6. DI - TERRACORE |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: SL | | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes ☒No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** _____ Date: 5-8-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Rev. 5-8-09

# Sample Condition Upon Receipt

Pace Analytical

Client Name: PMIE - MN Project # 4017084

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other Walt-CO

Tracking #: _____

Optional Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used N/A Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature DRY ICE Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/7/09 AE

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☒No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. 5/21/09 |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☒Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: S | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☒N/A | 15. |
| Trip Blank Present: | ☐Yes ☒No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased): _____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** _____ **Date:** 5/11/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

# Appendix B

Minnesota Department of Health Laboratory Report

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 11-APR-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200906776 — 200906776

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **1 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

Sample No: **200906776(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | - | - | **TRIP BLANK (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **11-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 12:08** |
| **Dibromofluoromethane (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 12:08** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **07-APR-09 12:08** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 12:08** |
| **Toluene-D8 (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 12:08** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 12:08 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Benzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Bromomethane | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:08 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:08 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **2 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

Sample No: **200906776(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | - | - | **TRIP BLANK (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **11-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:08 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:08 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 12:08 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 12:08 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:08 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **3 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

**Sample No: 200906776(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | - | - | **TRIP BLANK (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **11-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 07-APR-09 12:08 |
| Toluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:08 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:08 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:08 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:08 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 07-APR-09 12:08 |

**Result Code Description**

QO Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. Since the recovery showed a positive bias and the analyte was not detected in the sample, the sample result for this analyte was accepted without qualification.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **4 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | - |

## Quality Control Batch ID: 20090407.11 AN: 468

**All samples analyzed in the batch**

200906768, 200906769, 200906770, 200906771, 200906772, 200906773, 200906774, 200906776

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200906776 | 03-APR-09 | 07-APR-09 | 4 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **5 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 102 | 70-130 |
| Dibromofluoromethane (surrogate) | | 100 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 102 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 101 | 70-130 |
| Toluene-D8 (surrogate) | | 101 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **6 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **7 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 101 | 99 | 70-130 |
| Dibromofluoromethane (surrogate) | | 103 | 103 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 95 | 95 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 99 | 100 | 70-130 |
| Toluene-D8 (surrogate) | | 103 | 104 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 98 | 101 | 3 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 112 | 108 | 4 | 70-130 | 30 |
| Benzene | 5 | ug/L | 105 | 106 | 0 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 102 | 99 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 111 | 111 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **8 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 111 | 105 | 6 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 108 | 86 | 23 | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **170*** | **180*** | 5 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 103 | 103 | 0 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 104 | 104 | 0 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 120 | 112 | 7 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 105 | 105 | 1 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 105 | 94 | 11 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 129 | 124 | 4 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 108 | 109 | 1 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 129 | 128 | 1 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 106 | 105 | 1 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 111 | 110 | 1 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 95 | 88 | 8 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 108 | 106 | 1 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 109 | 109 | 0 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 103 | 101 | 2 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 104 | 103 | 2 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 102 | 100 | 2 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 128 | 120 | 6 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 111 | 110 | 0 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 106 | 107 | 1 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 117 | 115 | 2 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 113 | 113 | 0 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 114 | 112 | 1 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 125 | 129 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **9 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 109 | 108 | 1 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 108 | 106 | 2 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 116 | 103 | 12 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 114 | 111 | 2 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 109 | 102 | 7 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 109 | 102 | 7 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 111 | 113 | 1 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 113 | 112 | 1 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 95 | 95 | 0 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 107 | 106 | 1 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 103 | 103 | 1 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 110 | 111 | 1 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 102 | 98 | 4 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 97 | 92 | 4 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 109 | 107 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 79 | 76 | 4 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 111 | 109 | 2 | 70-130 | 30 |
| Styrene | 5 | ug/L | 108 | 110 | 1 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 109 | 105 | 4 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 103 | 98 | 5 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 109 | 107 | 2 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 97 | 98 | 1 | 70-130 | 30 |
| Toluene | 5 | ug/L | 103 | 104 | 1 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 91 | 90 | 2 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 90 | 88 | 2 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 112 | 107 | 4 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 104 | 105 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345802**

Date Received: **06-APR-2009**
Date Generated: **11-APR-2009**
Request Page: **10 of 10**

**Samples: 200906776 - 200906776**

Date Reported: **11-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | - |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 112 | 111 | 0 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 101 | 97 | 4 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 116 | 116 | 0 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 104 | 104 | 0 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 105 | 105 | 0 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 128 | 126 | 2 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 111 | 112 | 2 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 112 | 112 | 1 | 70-130 | 30 |

200906776

MPCA Project. PL

№ 2 [redacted]

STS | AECOM

# Chain of Custody Record

DAVID MOORE (MPCA) 651-757-2583

Contact Person Peter Rzepecki

Phone No. 763-852-4245 Office Mpls.

Project No. 04660024 PO No.

Project Name St. Louis Park Investigation

**Special Handling Request**

- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 1 Through 2

Laboratory MDH

Contact Person

Phone No. 651-201-4952

Results Due standard.

RF001177

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TripBlank (W) | 4/3/09 | — | X | | 3 | Water | X | | | | | | low-level VOC | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date Above | Time above | Delivery by: Peter Rzepecki | Date 4/6/09 | Time 2:00 PM |
| Received by: [signature]/MDH | Date 4-6-09 | Time 1355 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition: 6°C

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 22-MAR-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200904537 — 200904545

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **1 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **17-MAR-09 13:11** |
| **Dibromofluoromethane (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 13:11** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 13:11** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 13:11** |
| **Toluene-D8 (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 13:11** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 13:11 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| **Benzene** | | **0.3** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 13:11 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:11 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **2 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Dichlorodifluoromethane | QR | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| **1,1-Dichloroethane** | **J** | | **0.16** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| **1,1-Dichloroethene** | **J** | | **0.4** | **0.5** | **ug/L** | **17-MAR-09 13:11** |
| **cis-1,2-Dichloroethene** | | | **16** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| **trans-1,2-Dichloroethene** | | | **13** | **0.1** | **ug/L** | **17-MAR-09 13:11** |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:11 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 17-MAR-09 13:11 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 17-MAR-09 13:11 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:11 |
| Naphthalene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **3 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| **Tetrachloroethene** | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 13:11 |
| **Toluene** | J | **0.2** | **0.5** | **ug/L** | **17-MAR-09 13:11** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:11 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| **1,1,1-Trichloroethane** | J | **0.1** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| **Trichloroethene (TCE)** | | **9.6** | **0.1** | **ug/L** | **17-MAR-09 13:11** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:11 |
| **Vinyl chloride** | | **2.3** | **0.2** | **ug/L** | **17-MAR-09 13:11** |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:11 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 17-MAR-09 13:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **4 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 13:39** |
| **Dibromofluoromethane (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 13:39** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 13:39** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 13:39** |
| **Toluene-D8 (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 13:39** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 13:39 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| **Benzene** | | **0.5** | **0.2** | **ug/L** | **17-MAR-09 13:39** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:39 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| **Chloroform** | | **0.5** | **0.1** | **ug/L** | **17-MAR-09 13:39** |
| **Chloromethane** | | **1.8** | **1.0** | **ug/L** | **17-MAR-09 13:39** |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **5 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:39 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| **cis-1,2-Dichloroethene** | **J** | **0.1** | **0.2** | **ug/L** | **17-MAR-09 13:39** |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 13:39 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| **Ethylbenzene** | **J** | **0.46** | **0.5** | **ug/L** | **17-MAR-09 13:39** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:39 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:39 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 13:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **6 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 13:39 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:39 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:39 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| **Tetrachloroethene** | | **3.0** | **0.2** | **ug/L** | **17-MAR-09 13:39** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 13:39 |
| **Toluene** | | **0.7** | **0.5** | **ug/L** | **17-MAR-09 13:39** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:39 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| **Trichloroethene (TCE)** | | **2.9** | **0.1** | **ug/L** | **17-MAR-09 13:39** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:39 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| o-Xylene | PP < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:39 |
| p&m-Xylene | PP < | 0.3 | 0.3 | ug/L | 17-MAR-09 13:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **7 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 14:08** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **17-MAR-09 14:08** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 14:08** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 14:08** |
| **Toluene-D8 (surrogate)** | | **102** | **70-130** | **% Recovery** | **17-MAR-09 14:08** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 14:08 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **17-MAR-09 14:08** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| **Chloroform** | | **0.1** | **0.1** | **ug/L** | **17-MAR-09 14:08** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:08 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **8 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Dichlorodifluoromethane | QR | < 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 17-MAR-09 14:08 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 2,2-Dichloropropane | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 17-MAR-09 14:08 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 17-MAR-09 14:08 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 17-MAR-09 14:08 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 17-MAR-09 14:08 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **9 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| **Tetrachloroethene** | | | **11** | **0.2** | **ug/L** | **17-MAR-09 14:08** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 14:08 |
| **Toluene** | J | | **0.3** | **0.5** | **ug/L** | **17-MAR-09 14:08** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:08 |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| **Trichloroethene (TCE)** | | | **2.7** | **0.1** | **ug/L** | **17-MAR-09 14:08** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:08 |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:08 |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 14:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **10 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 14:37** |
| **Dibromofluoromethane (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 14:37** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 14:37** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 14:37** |
| **Toluene-D8 (surrogate)** | | **92** | **70-130** | **% Recovery** | **17-MAR-09 14:37** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 14:37 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| **Chloroform** | **J** | **0.08** | **0.1** | **ug/L** | **17-MAR-09 14:37** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:37 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **11 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| **cis-1,2-Dichloroethene** | | **0.4** | **0.2** | **ug/L** | **17-MAR-09 14:37** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **17-MAR-09 14:37** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:37 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 14:37 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 14:37 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:37 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **12 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| **Tetrachloroethene** | **RC** | | **1,800** | **5.0** | **ug/L** | **17-MAR-09 14:37** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 14:37 |
| **Toluene** | **J** | | **0.1** | **0.5** | **ug/L** | **17-MAR-09 14:37** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:37 |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| **1,1,1-Trichloroethane** | | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 14:37** |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| **Trichloroethene (TCE)** | | | **4.4** | **0.1** | **ug/L** | **17-MAR-09 14:37** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:37 |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:37 |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 14:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **13 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 15:05** |
| **Dibromofluoromethane (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 15:05** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 15:05** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **17-MAR-09 15:05** |
| **Toluene-D8 (surrogate)** | | **93** | **70-130** | **% Recovery** | **17-MAR-09 15:05** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 15:05 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 15:05 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:05 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **14 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| **cis-1,2-Dichloroethene** | | **0.4** | **0.2** | **ug/L** | **17-MAR-09 15:05** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **17-MAR-09 15:05** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:05 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 15:05 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 15:05 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:05 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **15 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| **Tetrachloroethene** | **RC** | | **1,800** | **5.0** | **ug/L** | **17-MAR-09 15:05** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 15:05 |
| **Toluene** | **J** | | **0.2** | **0.5** | **ug/L** | **17-MAR-09 15:05** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:05 |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| **1,1,1-Trichloroethane** | | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 15:05** |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| **Trichloroethene (TCE)** | | | **4.0** | **0.1** | **ug/L** | **17-MAR-09 15:05** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:05 |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:05 |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 15:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **16 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | | **102** | **70-130** | **% Recovery** | **17-MAR-09 15:34** |
| **Dibromofluoromethane (surrogate)** | | | **93** | **70-130** | **% Recovery** | **17-MAR-09 15:34** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | | **101** | **70-130** | **% Recovery** | **17-MAR-09 15:34** |
| **1,2-Dichloroethane-D4 (surrogate)** | | | **97** | **70-130** | **% Recovery** | **17-MAR-09 15:34** |
| **Toluene-D8 (surrogate)** | | | **103** | **70-130** | **% Recovery** | **17-MAR-09 15:34** |
| Acetone | | < | 20 | 20 | ug/L | 17-MAR-09 15:34 |
| Allyl chloride | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| **Benzene** | **RC** | | **47** | **2.0** | **ug/L** | **17-MAR-09 15:34** |
| Bromobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| Bromochloromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Bromodichloromethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| Bromoform | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Bromomethane | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:34 |
| n-Butylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| sec-Butylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| **tert-Butylbenzene** | | | **7.6** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| Carbon tetrachloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| Chlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| Chlorodibromomethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Chloroethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Chloroform | | < | 0.1 | 0.1 | ug/L | 17-MAR-09 15:34 |
| **Chloromethane** | | | **1.1** | **1.0** | **ug/L** | **17-MAR-09 15:34** |
| 2-Chlorotoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 4-Chlorotoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,2-Dibromo-3-chloropropane (DBCP) | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:34 |
| 1,2-Dibromoethane (EDB) | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **17 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:34 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| **cis-1,2-Dichloroethene** | | **2.0** | **0.2** | **ug/L** | **17-MAR-09 15:34** |
| **trans-1,2-Dichloroethene** | | **3.9** | **0.1** | **ug/L** | **17-MAR-09 15:34** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| **Ethylbenzene** | **RC** | **53** | **5.0** | **ug/L** | **17-MAR-09 15:34** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:34 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:34 |
| **Isopropylbenzene** | | **11** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 15:34 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 15:34 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:34 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **18 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **Naphthalene** | **RC** | **1,800** | **50** | **ug/L** | **17-MAR-09 15:34** |
| **n-Propylbenzene** | | **3.2** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| **Styrene** | | **1.6** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| **Tetrachloroethene** | | **1.5** | **0.2** | **ug/L** | **17-MAR-09 15:34** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 15:34 |
| **Toluene** | | **3.5** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:34 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| **Trichloroethene (TCE)** | | **6.9** | **0.1** | **ug/L** | **17-MAR-09 15:34** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:34 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| **1,2,4-Trimethylbenzene** | **RC** | **39** | **5.0** | **ug/L** | **17-MAR-09 15:34** |
| **1,3,5-Trimethylbenzene** | | **14** | **0.5** | **ug/L** | **17-MAR-09 15:34** |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:34 |
| **o-Xylene** | **RC** | **34** | **2.0** | **ug/L** | **17-MAR-09 15:34** |
| **p&m-Xylene** | **RC** | **37** | **3.0** | **ug/L** | **17-MAR-09 15:34** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **19 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 440 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 16:03** |
| **Dibromofluoromethane (surrogate)** | | **93** | **70-130** | **% Recovery** | **17-MAR-09 16:03** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **17-MAR-09 16:03** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 16:03** |
| **Toluene-D8 (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 16:03** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 16:03 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| **Benzene** | **RC** | **48** | **2.0** | **ug/L** | **17-MAR-09 16:03** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:03 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:03 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:03 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:03 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **20 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 440 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:03 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| **cis-1,2-Dichloroethene** | **J** | **0.1** | **0.2** | **ug/L** | **17-MAR-09 16:03** |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:03 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| **Ethylbenzene** | **RC** | **59** | **5.0** | **ug/L** | **17-MAR-09 16:03** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:03 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:03 |
| **Isopropylbenzene** | | **12** | **0.5** | **ug/L** | **17-MAR-09 16:03** |
| **p-Isopropyltoluene** | | **0.8** | **0.5** | **ug/L** | **17-MAR-09 16:03** |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 16:03 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 16:03 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **21 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 440 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **Naphthalene** | **RC** | **1,300** | **50** | **ug/L** | **17-MAR-09 16:03** |
| **n-Propylbenzene** | | **2.7** | **0.5** | **ug/L** | **17-MAR-09 16:03** |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| **Tetrachloroethene** | | **0.6** | **0.2** | **ug/L** | **17-MAR-09 16:03** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 16:03 |
| **Toluene** | | **3.6** | **0.5** | **ug/L** | **17-MAR-09 16:03** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:03 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| **Trichloroethene (TCE)** | **J** | **0.099** | **0.1** | **ug/L** | **17-MAR-09 16:03** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:03 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| **1,2,4-Trimethylbenzene** | **RC** | **36** | **5.0** | **ug/L** | **17-MAR-09 16:03** |
| **1,3,5-Trimethylbenzene** | | **8.5** | **0.5** | **ug/L** | **17-MAR-09 16:03** |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:03 |
| **o-Xylene** | **RC** | **38** | **2.0** | **ug/L** | **17-MAR-09 16:03** |
| **p&m-Xylene** | **RC** | **29** | **3.0** | **ug/L** | **17-MAR-09 16:03** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **22 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 16:31** |
| **Dibromofluoromethane (surrogate)** | | **91** | **70-130** | **% Recovery** | **17-MAR-09 16:31** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 16:31** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 16:31** |
| **Toluene-D8 (surrogate)** | | **105** | **70-130** | **% Recovery** | **17-MAR-09 16:31** |
| **Acetone** | | **29** | **20** | **ug/L** | **17-MAR-09 16:31** |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| **Benzene** | **RC** | **76** | **2.0** | **ug/L** | **17-MAR-09 16:31** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:31 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:31 |
| **Chloromethane** | **J** | **0.6** | **1.0** | **ug/L** | **17-MAR-09 16:31** |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:31 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **23 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:31 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:31 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| **Ethylbenzene** | | **17** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:31 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:31 |
| **Isopropylbenzene** | | **3.0** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 16:31 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **24 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 16:31 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:31 |
| **Naphthalene** | **RC** | **350** | **10** | **ug/L** | **17-MAR-09 16:31** |
| **n-Propylbenzene** | | **0.5** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| **Tetrachloroethene** | | **0.5** | **0.2** | **ug/L** | **17-MAR-09 16:31** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 16:31 |
| **Toluene** | | **1.2** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:31 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:31 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:31 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| **1,2,4-Trimethylbenzene** | | **4.8** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| **1,3,5-Trimethylbenzene** | | **1.2** | **0.5** | **ug/L** | **17-MAR-09 16:31** |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:31 |
| **o-Xylene** | | **10** | **0.2** | **ug/L** | **17-MAR-09 16:31** |
| **p&m-Xylene** | | **8.9** | **0.3** | **ug/L** | **17-MAR-09 16:31** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **25 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545 (Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 12:42** |
| **Dibromofluoromethane (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 12:42** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 12:42** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 12:42** |
| **Toluene-D8 (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 12:42** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 12:42 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| **Bromomethane** | **J** | **0.5** | **1.0** | **ug/L** | **17-MAR-09 12:42** |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12:42 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:42 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12:42 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **26 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:42 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12:42 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12:42 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:42 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 12:42 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 12:42 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12:42 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:42 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **27 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545 (Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 12:42 |
| Toluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:42 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12:42 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:42 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:42 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 17-MAR-09 12:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **28 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

**Result Code Description**

| | |
|---|---|
| J | The analyte was positively identified. The result is below the report level and is estimated. |
| PP | Peak present below report level |
| QR | Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated. |
| RC | Report level was changed due to sample dilution. |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **29 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

**All samples analyzed in the batch**

**200904537, 200904538, 200904539, 200904540, 200904541, 200904542, 200904543, 200904544, 200904545, 200904738, 200904739**

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200904537 | 03-MAR-09 | 17-MAR-09 | 14 | 14 DAYS | Y |
| 200904538 | 03-MAR-09 | 17-MAR-09 | 14 | 14 DAYS | Y |
| 200904539 | 03-MAR-09 | 17-MAR-09 | 14 | 14 DAYS | Y |
| 200904540 | 04-MAR-09 | 17-MAR-09 | 13 | 14 DAYS | Y |
| 200904541 | 04-MAR-09 | 17-MAR-09 | 13 | 14 DAYS | Y |
| 200904542 | 04-MAR-09 | 17-MAR-09 | 13 | 14 DAYS | Y |
| 200904543 | 05-MAR-09 | 17-MAR-09 | 12 | 14 DAYS | Y |
| 200904544 | 06-MAR-09 | 17-MAR-09 | 11 | 14 DAYS | Y |
| 200904545 | 06-MAR-09 | 17-MAR-09 | 11 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **30 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 103 | 70-130 |
| Dibromofluoromethane (surrogate) | | 96 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 99 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 99 | 70-130 |
| Toluene-D8 (surrogate) | | 102 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

**Samples: 200904537 - 200904545**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **31 of 35**
Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **32 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090317.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 103 | 101 | 70-130 |
| Dibromofluoromethane (surrogate) | | 97 | 98 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 94 | 94 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 97 | 100 | 70-130 |
| Toluene-D8 (surrogate) | | 104 | 104 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 74 | 79 | 6 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 106 | 101 | 5 | 70-130 | 30 |
| Benzene | 5 | ug/L | 101 | 98 | 3 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 108 | 100 | 8 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 107 | 105 | 2 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **33 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 104 | 99 | 5 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 101 | 89 | 13 | 70-130 | 30 |
| Bromomethane | 5 | ug/L | 129 | 124 | 4 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 107 | 104 | 3 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 110 | 108 | 2 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 113 | 109 | 4 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 113 | 103 | 10 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 106 | 102 | 4 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 99 | 90 | 10 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 103 | 96 | 7 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 103 | 101 | 2 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 97 | 90 | 8 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 111 | 106 | 4 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 115 | 111 | 4 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 93 | 86 | 7 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 105 | 101 | 4 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 105 | 100 | 4 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 106 | 102 | 4 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 110 | 103 | 6 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 107 | 101 | 6 | 70-130 | 30 |
| **Dichlorodifluoromethane** | 5 | ug/L | **68*** | **65*** | 4 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 106 | 102 | 3 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 101 | 97 | 4 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 104 | 98 | 6 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 108 | 105 | 2 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 107 | 103 | 4 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 112 | 106 | 5 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **34 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 107 | 104 | 3 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 105 | 102 | 3 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 120 | 99 | 20 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 112 | 107 | 4 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 113 | 104 | 9 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 112 | 103 | 8 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 114 | 111 | 3 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 105 | 101 | 3 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 104 | 96 | 8 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 115 | 111 | 4 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 111 | 107 | 3 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 99 | 96 | 4 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 96 | 93 | 3 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 94 | 95 | 1 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 104 | 101 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 89 | 99 | 10 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 118 | 114 | 4 | 70-130 | 30 |
| Styrene | 5 | ug/L | 110 | 107 | 3 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 104 | 97 | 8 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 103 | 100 | 3 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 110 | 108 | 3 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 93 | 97 | 5 | 70-130 | 30 |
| Toluene | 5 | ug/L | 104 | 101 | 3 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 98 | 96 | 1 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 102 | 97 | 5 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 108 | 101 | 6 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 105 | 99 | 6 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **20-MAR-2009**
Request Page: **35 of 35**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090317.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 109 | 105 | 4 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 101 | 97 | 4 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 101 | 96 | 5 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 106 | 100 | 6 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 110 | 106 | 4 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 112 | 108 | 4 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 102 | 94 | 8 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 113 | 110 | 3 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 113 | 110 | 3 | 70-130 | 30 |

00904537 thru 00904545 MPCA Project → Dave Moore is Proj Mgr. PL

STS | AECOM

№ 4338

# Chain of Custody Record

MAR 9 '09 PM 12:51

Record Number — Through —

Contact Person Peter Rzepecki
Phone No. 767-852-4245 Office Mpls
Project No. 04660024 PO No.
Project Name St. Louis Park Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory MDH
Contact Person
Phone No. 651-201-4952
Results Due Standard.

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data: PID/FID Ambient | Field Data: PID/FID Sample | Field Data: PH | Field Data: Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-6714 Walker #1 (W) | 3/3/09 | 945 | X | | 3 | Water | X | | | | | | low-level VOC. | 20904537 |
| B-6512 Walker #2 (W) | ↓ | 1405 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4538 |
| B-6512 Walker #3 (W) | ↓ | 1655 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4539 |
| B-6512 Walker #1 (W) | 3/4/09 | 1210 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4540 |
| B-6512 Walker #11 (W) | ↓ | 1220 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4541 |
| B-3340 Gorham #1 (W) | ↓ | 1655 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4542 |
| B-3340 Gorham #2 (W) | 3/5/09 | 1245 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4543 |
| B-3326 Gorham #2 (W) | 3/6/09 | 1430 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | 4544 |
| Trip Blank | 3/4/09 | — | — | | ↓ | ↓ | ↓ | | | | | | ↓ | 4545 |

9°C

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date ABOVE | Time ABOVE | Delivery by: PETER RZEPECKI | Date 3/9/09 | Time 12:30PM |
| Received by: Peter Rzepecki | Date 3/9/09 | Time — | Relinquished by: Peter Rzepecki | Date 3/9/09 | Time |
| Received by: Ruth Mulleady | Date 3-9-09 | Time 12:35 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 14-APR-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200906767 — 200906775

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **1 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906767**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1115** | - | **B-7008 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **99** | **70-130** | **% Recovery** | **09-APR-09 11:14** |
| **Dibromofluoromethane (surrogate)** | | **101** | **70-130** | **% Recovery** | **09-APR-09 11:14** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **09-APR-09 11:14** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **105** | **70-130** | **% Recovery** | **09-APR-09 11:14** |
| **Toluene-D8 (surrogate)** | | **100** | **70-130** | **% Recovery** | **09-APR-09 11:14** |
| Acetone | < | 20 | 20 | ug/L | 09-APR-09 11:14 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Benzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 09-APR-09 11:14 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 09-APR-09 11:14 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **2 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906767**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1115** | - | **B-7008 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 09-APR-09 11:14 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 2,2-Dichloropropane | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 09-APR-09 11:14 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 09-APR-09 11:14 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 09-APR-09 11:14 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 09-APR-09 11:14 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **3 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906767**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1115** | - | **B-7008 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 09-APR-09 11:14 |
| **Toluene** | **J** | **0.3** | **0.5** | **ug/L** | **09-APR-09 11:14** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:14 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| **1,1,1-Trichloroethane** | | **0.2** | **0.2** | **ug/L** | **09-APR-09 11:14** |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| **Trichloroethene (TCE)** | | **5.4** | **0.1** | **ug/L** | **09-APR-09 11:14** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:14 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:14 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 09-APR-09 11:14 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **4 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906768**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1300** | - | **B-7008 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 15:29** |
| **Dibromofluoromethane (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 15:29** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **07-APR-09 15:29** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 15:29** |
| **Toluene-D8 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 15:29** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 15:29 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| **Benzene** | | **0.7** | **0.2** | **ug/L** | **07-APR-09 15:29** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Bromomethane | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 15:29 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:29 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **5 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906768**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1300** | - | **B-7008 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| **1,1-Dichloroethane** | **J** | | **0.20** | **0.2** | **ug/L** | **07-APR-09 15:29** |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| **cis-1,2-Dichloroethene** | **RC** | | **76** | **2.0** | **ug/L** | **09-APR-09 12:11** |
| **trans-1,2-Dichloroethene** | **RC** | | **200** | **1.0** | **ug/L** | **09-APR-09 12:11** |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:29 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 07-APR-09 15:29 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 07-APR-09 15:29 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:29 |
| Naphthalene | | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **6 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906768**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1300** | - | **B-7008 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,1,1,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,1,2,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Tetrachloroethene | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| Tetrahydrofuran (THF) | | < 10 | 10 | ug/L | 07-APR-09 15:29 |
| **Toluene** | **J** | **0.4** | **0.5** | **ug/L** | **07-APR-09 15:29** |
| 1,2,3-Trichlorobenzene | | < 1.0 | 1.0 | ug/L | 07-APR-09 15:29 |
| 1,2,4-Trichlorobenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,1,1-Trichloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,1,2-Trichloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| **Trichloroethene (TCE)** | **RC** | **100** | **1.0** | **ug/L** | **09-APR-09 12:11** |
| Trichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,2,3-Trichloropropane | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,1,2-Trichlorotrifluoroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| 1,2,4-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| 1,3,5-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 15:29 |
| **Vinyl chloride** | | **0.7** | **0.2** | **ug/L** | **07-APR-09 15:29** |
| o-Xylene | | < 0.2 | 0.2 | ug/L | 07-APR-09 15:29 |
| p&m-Xylene | | < 0.3 | 0.3 | ug/L | 07-APR-09 15:29 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **7 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906769**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1645** | - | **B-7008 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 15:00** |
| **Dibromofluoromethane (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 15:00** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **07-APR-09 15:00** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 15:00** |
| **Toluene-D8 (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 15:00** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 15:00 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Benzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Bromomethane | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 15:00 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:00 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **8 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906769**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1645** | - | **B-7008 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| **cis-1,2-Dichloroethene** | | **0.9** | **0.2** | **ug/L** | **07-APR-09 15:00** |
| **trans-1,2-Dichloroethene** | | **1.4** | **0.1** | **ug/L** | **07-APR-09 15:00** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:00 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 15:00 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 15:00 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 15:00 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **9 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906769**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **30-MAR-2009** | **1645** | - | **B-7008 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Tetrachloroethene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 07-APR-09 15:00 |
| **Toluene** | **J** | | **0.4** | **0.5** | **ug/L** | **07-APR-09 15:00** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 07-APR-09 15:00 |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| **Trichloroethene (TCE)** | | | **26** | **0.1** | **ug/L** | **07-APR-09 15:00** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 15:00 |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 15:00 |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 07-APR-09 15:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **10 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906770**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1230** | - | **B-7020 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 14:32** |
| **Dibromofluoromethane (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 14:32** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **105** | **70-130** | **% Recovery** | **07-APR-09 14:32** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 14:32** |
| **Toluene-D8 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 14:32** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 14:32 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **07-APR-09 14:32** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Bromomethane | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 14:32 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:32 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **11 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906770**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1230** | - | **B-7020 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| **cis-1,2-Dichloroethene** | | **2.3** | **0.2** | **ug/L** | **07-APR-09 14:32** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **07-APR-09 14:32** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:32 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 14:32 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 14:32 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:32 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **12 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906770**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1230** | - | **B-7020 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 07-APR-09 14:32 |
| **Toluene** | | **0.9** | **0.5** | **ug/L** | **07-APR-09 14:32** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:32 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| **1,1,1-Trichloroethane** | | **0.2** | **0.2** | **ug/L** | **07-APR-09 14:32** |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| **Trichloroethene (TCE)** | | **3.9** | **0.1** | **ug/L** | **07-APR-09 14:32** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:32 |
| **Vinyl chloride** | | **0.2** | **0.2** | **ug/L** | **07-APR-09 14:32** |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:32 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 07-APR-09 14:32 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **13 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906771**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1235** | - | **B-7020 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 14:03** |
| **Dibromofluoromethane (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 14:03** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **105** | **70-130** | **% Recovery** | **07-APR-09 14:03** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 14:03** |
| **Toluene-D8 (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 14:03** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 14:03 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **07-APR-09 14:03** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Bromomethane - | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 14:03 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:03 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **14 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906771**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1235** | - | **B-7020 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| **cis-1,2-Dichloroethene** | | **2.1** | **0.2** | **ug/L** | **07-APR-09 14:03** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **07-APR-09 14:03** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:03 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 14:03 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 14:03 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 14:03 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **15 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906771**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1235** | - | **B-7020 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 07-APR-09 14:03 |
| **Toluene** | | **0.5** | **0.5** | **ug/L** | **07-APR-09 14:03** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 07-APR-09 14:03 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| **1,1,1-Trichloroethane** | | **0.2** | **0.2** | **ug/L** | **07-APR-09 14:03** |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| **Trichloroethene (TCE)** | | **4.3** | **0.1** | **ug/L** | **07-APR-09 14:03** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 14:03 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 07-APR-09 14:03 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 07-APR-09 14:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **16 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906772**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1440** | - | **B-7020 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 13:34** |
| **Dibromofluoromethane (surrogate)** | | **103** | **70-130** | **% Recovery** | **07-APR-09 13:34** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **103** | **70-130** | **% Recovery** | **07-APR-09 13:34** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **07-APR-09 13:34** |
| **Toluene-D8 (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 13:34** |
| Acetone | | < 20 | 20 | ug/L | 07-APR-09 13:34 |
| Allyl chloride | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Benzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Bromobenzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Bromochloromethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Bromodichloromethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Bromoform | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Bromomethane | QO | < 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| n-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| sec-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| tert-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Carbon tetrachloride | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Chlorobenzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Chlorodibromomethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Chloroethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Chloroform | | < 0.1 | 0.1 | ug/L | 07-APR-09 13:34 |
| Chloromethane | | < 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| 2-Chlorotoluene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 4-Chlorotoluene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,2-Dibromo-3-chloropropane (DBCP) | | < 2.0 | 2.0 | ug/L | 07-APR-09 13:34 |
| 1,2-Dibromoethane (EDB) | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Dibromomethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **17 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906772**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1440** | - | **B-7020 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 07-APR-09 13:34 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 13:34 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 13:34 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 13:34 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 13:34 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **18 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906772**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **31-MAR-2009** | **1440** | - | **B-7020 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Tetrachloroethene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 07-APR-09 13:34 |
| **Toluene** | J | | **0.3** | **0.5** | **ug/L** | **07-APR-09 13:34** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:34 |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| Trichloroethene (TCE) | | < | 0.1 | 0.1 | ug/L | 07-APR-09 13:34 |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:34 |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:34 |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 07-APR-09 13:34 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **19 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906773**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **01-APR-2009** | **1000** | - | **B-7020 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 13:06** |
| **Dibromofluoromethane (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 13:06** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **104** | **70-130** | **% Recovery** | **07-APR-09 13:06** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 13:06** |
| **Toluene-D8 (surrogate)** | | **101** | **70-130** | **% Recovery** | **07-APR-09 13:06** |
| Acetone | | < 20 | 20 | ug/L | 07-APR-09 13:06 |
| Allyl chloride | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Benzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Bromobenzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Bromochloromethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Bromodichloromethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Bromoform | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Bromomethane | QO | < 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| n-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| sec-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| tert-Butylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Carbon tetrachloride | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Chlorobenzene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Chlorodibromomethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Chloroethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Chloroform | | < 0.1 | 0.1 | ug/L | 07-APR-09 13:06 |
| Chloromethane | | < 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| 2-Chlorotoluene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 4-Chlorotoluene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,2-Dibromo-3-chloropropane (DBCP) | | < 2.0 | 2.0 | ug/L | 07-APR-09 13:06 |
| 1,2-Dibromoethane (EDB) | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Dibromomethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **20 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906773**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **01-APR-2009** | **1000** | - | **B-7020 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| **cis-1,2-Dichloroethene** | | **1.4** | **0.2** | **ug/L** | **07-APR-09 13:06** |
| **trans-1,2-Dichloroethene** | | **1.4** | **0.1** | **ug/L** | **07-APR-09 13:06** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 13:06 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 13:06 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 13:06 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 13:06 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **21 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906773**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **01-APR-2009** | **1000** | - | **B-7020 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,1,1,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,1,2,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Tetrachloroethene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| Tetrahydrofuran (THF) | | < 10 | 10 | ug/L | 07-APR-09 13:06 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **07-APR-09 13:06** |
| 1,2,3-Trichlorobenzene | | < 1.0 | 1.0 | ug/L | 07-APR-09 13:06 |
| 1,2,4-Trichlorobenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| **1,1,1-Trichloroethane** | | **0.3** | **0.2** | **ug/L** | **07-APR-09 13:06** |
| 1,1,2-Trichloroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| **Trichloroethene (TCE)** | | **68** | **0.1** | **ug/L** | **07-APR-09 13:06** |
| Trichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,2,3-Trichloropropane | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,1,2-Trichlorotrifluoroethane | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| 1,2,4-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| 1,3,5-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 07-APR-09 13:06 |
| Vinyl chloride | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| o-Xylene | | < 0.2 | 0.2 | ug/L | 07-APR-09 13:06 |
| p&m-Xylene | | < 0.3 | 0.3 | ug/L | 07-APR-09 13:06 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **22 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906774**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1125** | - | **B-6528 LAKE 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 12:37** |
| **Dibromofluoromethane (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 12:37** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **103** | **70-130** | **% Recovery** | **07-APR-09 12:37** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **07-APR-09 12:37** |
| **Toluene-D8 (surrogate)** | | **102** | **70-130** | **% Recovery** | **07-APR-09 12:37** |
| Acetone | < | 20 | 20 | ug/L | 07-APR-09 12:37 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Benzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Bromomethane | QO < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:37 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:37 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **23 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906774**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1125** | - | **B-6528 LAKE 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:37 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:37 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 07-APR-09 12:37 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 07-APR-09 12:37 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 07-APR-09 12:37 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **24 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906774**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1125** | - | **B-6528 LAKE 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 07-APR-09 12:37 |
| **Toluene** | | **0.9** | **0.5** | **ug/L** | **07-APR-09 12:37** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 07-APR-09 12:37 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 07-APR-09 12:37 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 07-APR-09 12:37 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 07-APR-09 12:37 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 07-APR-09 12:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **25 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906775**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1430** | - | **B-6528 LAKE 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **99** | **70-130** | **% Recovery** | **09-APR-09 11:43** |
| **Dibromofluoromethane (surrogate)** | | **100** | **70-130** | **% Recovery** | **09-APR-09 11:43** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **103** | **70-130** | **% Recovery** | **09-APR-09 11:43** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **102** | **70-130** | **% Recovery** | **09-APR-09 11:43** |
| **Toluene-D8 (surrogate)** | | **100** | **70-130** | **% Recovery** | **09-APR-09 11:43** |
| Acetone | < | 20 | 20 | ug/L | 09-APR-09 11:43 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Benzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 09-APR-09 11:43 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 09-APR-09 11:43 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **26 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906775**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1430** | - | **B-6528 LAKE 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| **cis-1,2-Dichloroethene** | | **0.4** | **0.2** | **ug/L** | **09-APR-09 11:43** |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 09-APR-09 11:43 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 09-APR-09 11:43 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 09-APR-09 11:43 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 09-APR-09 11:43 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 09-APR-09 11:43 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **27 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200906775**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-APR-2009** | **1430** | - | **B-6528 LAKE 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **14-APR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,1,1,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,1,2,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| **Tetrachloroethene** | | **0.5** | **0.2** | **ug/L** | **09-APR-09 11:43** |
| Tetrahydrofuran (THF) | | < 10 | 10 | ug/L | 09-APR-09 11:43 |
| **Toluene** | | **0.9** | **0.5** | **ug/L** | **09-APR-09 11:43** |
| 1,2,3-Trichlorobenzene | | < 1.0 | 1.0 | ug/L | 09-APR-09 11:43 |
| 1,2,4-Trichlorobenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,1,1-Trichloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,1,2-Trichloroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| Trichloroethene (TCE) | | < 0.1 | 0.1 | ug/L | 09-APR-09 11:43 |
| Trichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,2,3-Trichloropropane | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,1,2-Trichlorotrifluoroethane | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| 1,2,4-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| 1,3,5-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 09-APR-09 11:43 |
| Vinyl chloride | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| o-Xylene | | < 0.2 | 0.2 | ug/L | 09-APR-09 11:43 |
| p&m-Xylene | | < 0.3 | 0.3 | ug/L | 09-APR-09 11:43 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **28 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

**Result Code Description**

J The analyte was positively identified. The result is below the report level and is estimated.

QO Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. Since the recovery showed a positive bias and the analyte was not detected in the sample, the sample result for this analyte was accepted without qualification.

RC Report level was changed due to sample dilution.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **29 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

**All samples analyzed in the batch**

200906768, 200906769, 200906770, 200906771, 200906772, 200906773, 200906774, 200906776

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200906768 | 30-MAR-09 | 09-APR-09 | 10 | 14 DAYS | Y |
| 200906769 | 30-MAR-09 | 07-APR-09 | 8 | 14 DAYS | Y |
| 200906770 | 31-MAR-09 | 07-APR-09 | 7 | 14 DAYS | Y |
| 200906771 | 31-MAR-09 | 07-APR-09 | 7 | 14 DAYS | Y |
| 200906772 | 31-MAR-09 | 07-APR-09 | 7 | 14 DAYS | Y |
| 200906773 | 01-APR-09 | 07-APR-09 | 6 | 14 DAYS | Y |
| 200906774 | 03-APR-09 | 07-APR-09 | 4 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **30 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 102 | 70-130 |
| Dibromofluoromethane (surrogate) | | 100 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 102 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 101 | 70-130 |
| Toluene-D8 (surrogate) | | 101 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **31 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **32 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 101 | 99 | 70-130 |
| Dibromofluoromethane (surrogate) | | 103 | 103 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 95 | 95 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 99 | 100 | 70-130 |
| Toluene-D8 (surrogate) | | 103 | 104 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 98 | 101 | 3 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 112 | 108 | 4 | 70-130 | 30 |
| Benzene | 5 | ug/L | 105 | 106 | 0 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 102 | 99 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 111 | 111 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **33 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 111 | 105 | 6 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 108 | 86 | 23 | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **170*** | **180*** | 5 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 103 | 103 | 0 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 104 | 104 | 0 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 120 | 112 | 7 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 105 | 105 | 1 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 105 | 94 | 11 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 129 | 124 | 4 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 108 | 109 | 1 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 129 | 128 | 1 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 106 | 105 | 1 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 111 | 110 | 1 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 95 | 88 | 8 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 108 | 106 | 1 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 109 | 109 | 0 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 103 | 101 | 2 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 104 | 103 | 2 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 102 | 100 | 2 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 128 | 120 | 6 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 111 | 110 | 0 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 106 | 107 | 1 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 117 | 115 | 2 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 113 | 113 | 0 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 114 | 112 | 1 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 125 | 129 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **34 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 109 | 108 | 1 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 108 | 106 | 2 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 116 | 103 | 12 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 114 | 111 | 2 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 109 | 102 | 7 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 109 | 102 | 7 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 111 | 113 | 1 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 113 | 112 | 1 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 95 | 95 | 0 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 107 | 106 | 1 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 103 | 103 | 1 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 110 | 111 | 1 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 102 | 98 | 4 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 97 | 92 | 4 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 109 | 107 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 79 | 76 | 4 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 111 | 109 | 2 | 70-130 | 30 |
| Styrene | 5 | ug/L | 108 | 110 | 1 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 109 | 105 | 4 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 103 | 98 | 5 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 109 | 107 | 2 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 97 | 98 | 1 | 70-130 | 30 |
| Toluene | 5 | ug/L | 103 | 104 | 1 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 91 | 90 | 2 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 90 | 88 | 2 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 112 | 107 | 4 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 104 | 105 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **35 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090407.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 112 | 111 | 0 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 101 | 97 | 4 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 116 | 116 | 0 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 104 | 104 | 0 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 105 | 105 | 0 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 128 | 126 | 2 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 111 | 112 | 2 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 112 | 112 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **36 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090409.11 AN: 468

**All samples analyzed in the batch**

200906767, 200906768, 200906775, 200906896, 200906898, 200907163, 200907168

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200906767 | 30-MAR-09 | 09-APR-09 | 10 | 14 DAYS | Y |
| 200906768 | 30-MAR-09 | 09-APR-09 | 10 | 14 DAYS | Y |
| 200906775 | 03-APR-09 | 09-APR-09 | 6 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

**Samples: 200906767 - 200906775**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **37 of 42**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090409.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 100 | 70-130 |
| Dibromofluoromethane (surrogate) | | 98 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 104 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 103 | 70-130 |
| Toluene-D8 (surrogate) | | 100 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **38 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090409.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **39 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090409.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 98 | 97 | 70-130 |
| Dibromofluoromethane (surrogate) | | 103 | 103 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 93 | 94 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 101 | 99 | 70-130 |
| Toluene-D8 (surrogate) | | 103 | 101 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| **Acetone** | 5 | ug/L | **35*** | **47*** | 30 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 111 | 104 | 7 | 70-130 | 30 |
| Benzene | 5 | ug/L | 99 | 101 | 2 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 94 | 94 | 0 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 103 | 103 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **40 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090409.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 100 | 96 | 4 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 104 | 96 | 9 | 70-130 | 30 |
| Bromomethane | 5 | ug/L | 100 | 96 | 5 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 100 | 97 | 3 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 99 | 98 | 1 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 98 | 97 | 1 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 105 | 99 | 6 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 100 | 101 | 1 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 102 | 95 | 7 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 95 | 95 | 0 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 101 | 101 | 0 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 96 | 98 | 2 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 103 | 103 | 0 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 108 | 108 | 0 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 91 | 86 | 5 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 97 | 98 | 1 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 94 | 96 | 2 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 100 | 99 | 1 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 97 | 97 | 0 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 82 | 82 | 0 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 102 | 101 | 1 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 99 | 101 | 3 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 103 | 103 | 0 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 104 | 104 | 0 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 106 | 103 | 3 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 103 | 104 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **41 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

## Quality Control Batch ID: 20090409.11 AN:468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 99 | 100 | 1 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 97 | 100 | 3 | 70-130 | 30 |
| **2,2-Dichloropropane** | 5 | ug/L | **162*** | **142*** | 13 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 107 | 105 | 1 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 97 | 92 | 4 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 92 | 88 | 5 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 111 | 111 | 1 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 103 | 105 | 2 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 101 | 98 | 4 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 96 | 96 | 0 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 98 | 98 | 0 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 91 | 92 | 2 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 92 | 96 | 4 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 88 | 92 | 4 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 98 | 101 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 79 | 81 | 2 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 111 | 110 | 1 | 70-130 | 30 |
| Styrene | 5 | ug/L | 96 | 97 | 1 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 101 | 96 | 4 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 92 | 95 | 3 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 103 | 104 | 1 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 92 | 97 | 4 | 70-130 | 30 |
| Toluene | 5 | ug/L | 99 | 100 | 1 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 91 | 92 | 1 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 91 | 91 | 0 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 104 | 101 | 3 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 100 | 101 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **345796**

Date Received: **06-APR-2009**
Date Generated: **14-APR-2009**
Request Page: **42 of 42**

**Samples: 200906767 - 200906775**

Date Reported: **14-APR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK INVESTIGATION | RYAN DOHERTY |

## Quality Control Batch ID: 20090409.11 AN:468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 105 | 104 | 1 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 105 | 106 | 1 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 93 | 96 | 3 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 113 | 110 | 2 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 97 | 96 | 2 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 97 | 97 | 0 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 105 | 103 | 2 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 98 | 100 | 2 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 109 | 110 | 1 | 70-130 | 30 |

200906767 thru 200906775 MPCA Project YL

№ 1 ~~[illegible]~~

STS | AECOM

# Chain of Custody Record

→ DAVID MOORE (MPCA) 651-757-2583
tact Person Peter Rzepecki
ne No. 763-852-4245 Office MPLS.
ect No. 04660024 PO No.
ect Name St. Louis Park Investigation

**Special Handling Request**
☐ Rush
☐ Verbal
☐ Other

Record Number 1 Through 2
Laboratory MDH
Contact Person
Phone No. 651-201-4952
Results Due Standard

RF001176

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-7008 Walker #1 (W) | 3/30/09 | 1115 | X | | 3 | Water | X | | | | | | low-level VOC | |
| B-7008 Walker #2 (W) | ↓ | 1300 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | |
| B-7008 Walker #3 (W) | ↓ | 1645 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | |
| B-7020 Walker #1 (W) | 3/31/09 | 1230 | X | | 3 | Water | X | | | | | | ↓ | |
| B-7020 Walker #1 (W) | ↓ | 1235 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | |
| B-7020 Walker #2 (W) | ↓ | 1440 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | |
| B-7020 Walker #3 (W) | 4/1/09 | 1000 | X | | 3 | Water | X | | | | | | ↓ | |
| B-6528 Lake #1 (W) | 4/3/09 | 1125 | X | | 3 | Water | X | | | | | | ↓ | |
| B-6528 Lake #2 (W) | ↓ | 1420 | ↓ | | ↓ | ↓ | ↓ | | | | | | ↓ | |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: Ryan Doherty | Date above | Time above | Delivery by: Peter Rzepecki | Date 4/6/09 | Time 2:00 PM |
| Received by: [illegible] MDH | Date 4-6-09 | Time 1355 | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition: RC

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 20-MAY-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200911599 — 200911600

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **1 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660-024** | **ST. LOUIS PARK VOC SOURCES INVESTIGATION** | **-** |

Sample No: **200911599**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1125** | **-** | **6225 37TH** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **106** | **70-130** | **% Recovery** | **16-MAY-09 02:31** |
| **Dibromofluoromethane (surrogate)** | | **99** | **70-130** | **% Recovery** | **16-MAY-09 02:31** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **16-MAY-09 02:31** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **90** | **70-130** | **% Recovery** | **16-MAY-09 02:31** |
| **Toluene-D8 (surrogate)** | | **119** | **70-130** | **% Recovery** | **16-MAY-09 02:31** |
| Acetone | < | 20 | 20 | ug/L | 16-MAY-09 02:31 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| **Benzene** | | **9.2** | **0.2** | **ug/L** | **16-MAY-09 02:31** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 16-MAY-09 02:31 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:31 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **2 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660-024** | **ST. LOUIS PARK VOC SOURCES INVESTIGATION** | - |

Sample No: **200911599**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1125** | - | **6225 37TH** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Dibromomethane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| **1,1-Dichloroethene** | | | **12** | **0.5** | **ug/L** | **16-MAY-09 02:31** |
| **cis-1,2-Dichloroethene** | **RC** | | **3,200** | **20** | **ug/L** | **19-MAY-09** |
| **trans-1,2-Dichloroethene** | | | **86** | **0.1** | **ug/L** | **16-MAY-09 02:31** |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:31 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 16-MAY-09 02:31 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 16-MAY-09 02:31 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:31 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **3 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

Sample No: **200911599**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| 05-MAY-2009 | 1125 | - | 6225 37TH |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| Styrene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,1,1,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,1,2,2-Tetrachloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| **Tetrachloroethene** | | **4.0** | **0.2** | **ug/L** | **16-MAY-09 02:31** |
| Tetrahydrofuran (THF) | | < 10 | 10 | ug/L | 16-MAY-09 02:31 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **16-MAY-09 02:31** |
| 1,2,3-Trichlorobenzene | | < 1.0 | 1.0 | ug/L | 16-MAY-09 02:31 |
| 1,2,4-Trichlorobenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,1,1-Trichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,1,2-Trichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| **Trichloroethene (TCE)** | | **6.9** | **0.1** | **ug/L** | **16-MAY-09 02:31** |
| Trichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,2,3-Trichloropropane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,1,2-Trichlorotrifluoroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| 1,2,4-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| 1,3,5-Trimethylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 02:31 |
| **Vinyl chloride** | **RC** | **120** | **20** | **ug/L** | **19-MAY-09** |
| o-Xylene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 02:31 |
| p&m-Xylene | | < 0.3 | 0.3 | ug/L | 16-MAY-09 02:31 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **4 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660-024** | **ST. LOUIS PARK VOC SOURCES INVESTIGATION** | **-** |

Sample No: **200911600**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1140** | **-** | **6230 37TH** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **16-MAY-09 03:00** |
| **Dibromofluoromethane (surrogate)** | | **101** | **70-130** | **% Recovery** | **16-MAY-09 03:00** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **16-MAY-09 03:00** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **16-MAY-09 03:00** |
| **Toluene-D8 (surrogate)** | | **119** | **70-130** | **% Recovery** | **16-MAY-09 03:00** |
| Acetone | < | 20 | 20 | ug/L | 16-MAY-09 03:00 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| **Benzene** | | **8.4** | **0.2** | **ug/L** | **16-MAY-09 03:00** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 16-MAY-09 03:00 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 03:00 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **5 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660-024** | **ST. LOUIS PARK VOC SOURCES INVESTIGATION** | **-** |

Sample No: **200911600**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1140** | **-** | **6230 37TH** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Dibromomethane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| **1,1-Dichloroethene** | | | **10** | **0.5** | **ug/L** | **16-MAY-09 03:00** |
| **cis-1,2-Dichloroethene** | **RC** | | **3,300** | **20** | **ug/L** | **19-MAY-09** |
| **trans-1,2-Dichloroethene** | | | **74** | **0.1** | **ug/L** | **16-MAY-09 03:00** |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 16-MAY-09 03:00 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 16-MAY-09 03:00 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 16-MAY-09 03:00 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 16-MAY-09 03:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **6 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

Sample No: **200911600**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| 05-MAY-2009 | 1140 | - | 6230 37TH |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| Styrene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| **Tetrachloroethene** | | **3.4** | **0.2** | **ug/L** | **16-MAY-09 03:00** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 16-MAY-09 03:00 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **16-MAY-09 03:00** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 03:00 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| **Trichloroethene (TCE)** | | **6.2** | **0.1** | **ug/L** | **16-MAY-09 03:00** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 03:00 |
| **Vinyl chloride** | **RC** | **120** | **20** | **ug/L** | **19-MAY-09** |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 03:00 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 16-MAY-09 03:00 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**


**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660-024** | **ST. LOUIS PARK VOC SOURCES INVESTIGATION** | - |

**Result Code Description**

J The analyte was positively identified. The result is below the report level and is estimated.

QR Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

RC Report level was changed due to sample dilution.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **8 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

**All samples analyzed in the batch**

200911597, 200911599, 200911600

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200911599 | 05-MAY-09 | 19-MAY-09 | 14 | 14 DAYS | Y |
| 200911600 | 05-MAY-09 | 19-MAY-09 | 14 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **9 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 105 | 70-130 |
| Dibromofluoromethane (surrogate) | | 96 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 97 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 91 | 70-130 |
| Toluene-D8 (surrogate) | | 117 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **10 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **11 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 100 | 101 | 70-130 |
| Dibromofluoromethane (surrogate) | | 98 | 97 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 87 | 89 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 92 | 91 | 70-130 |
| Toluene-D8 (surrogate) | | 120 | 121 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 108 | 112 | 4 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 108 | 112 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **12 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Benzene | 5 | ug/L | 105 | 112 | 6 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 96 | 99 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 102 | 107 | 5 | 70-130 | 30 |
| Bromodichloromethane | 5 | ug/L | 113 | 123 | 9 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 78 | 96 | 22 | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **48*** | **56*** | 17 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 99 | 103 | 4 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 97 | 102 | 6 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 107 | 112 | 4 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 97 | 108 | 10 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 96 | 102 | 5 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 78 | 91 | 15 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 113 | 124 | 10 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 116 | 123 | 6 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 107 | 116 | 8 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 105 | 111 | 6 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 112 | 117 | 5 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 112 | 114 | 2 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 107 | 110 | 3 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 120 | 119 | 1 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 94 | 98 | 4 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 98 | 102 | 3 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 85 | 94 | 10 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 118 | 125 | 6 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 128 | 129 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **13 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 5 | ug/L | 104 | 111 | 7 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 108 | 120 | 11 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 103 | 112 | 8 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 116 | 127 | 9 | 70-130 | 30 |
| 1,2-Dichloropropane | 5 | ug/L | 118 | 123 | 4 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 110 | 115 | 5 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 111 | 103 | 7 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 117 | 125 | 6 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 94 | 95 | 1 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 96 | 97 | 1 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 112 | 119 | 6 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 111 | 114 | 3 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 93 | 95 | 2 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 98 | 104 | 6 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 96 | 100 | 4 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 93 | 99 | 7 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 111 | 108 | 2 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 115 | 116 | 1 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 123 | 124 | 1 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 95 | 91 | 4 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 113 | 120 | 5 | 70-130 | 30 |
| Styrene | 5 | ug/L | 97 | 102 | 5 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 100 | 106 | 6 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 110 | 111 | 1 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 101 | 108 | 6 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348713**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **14 of 14**

**Samples: 200911599 - 200911600**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660-024 | ST. LOUIS PARK VOC SOURCES INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Toluene | 5 | ug/L | 99 | 104 | 5 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 96 | 98 | 2 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 96 | 97 | 2 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 119 | 128 | 8 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 106 | 112 | 5 | 70-130 | 30 |
| Trichloroethene (TCE) | 5 | ug/L | 110 | 117 | 6 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 114 | 123 | 8 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 111 | 109 | 2 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 104 | 109 | 5 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 109 | 112 | 3 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 106 | 112 | 5 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 102 | 115 | 12 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 98 | 102 | 4 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 105 | 111 | 5 | 70-130 | 30 |

200911599 200911600

STS | AECOM

№ 4222

# in of Custody Record

Record Number 4222 Through 4222

Person DAVID MOORE, MPCA (PL)
No. 651-757-2583 Office
No. 04660-024 PO No.
Name ST. LOUIS PARK VOC SOURCES INVESTIGATION

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory MDH
Contact Person
Phone No.
Results Due NORMAL

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 09 | AM | | | | | | | | | | | | SC |
| 6225 37th | 5/5 | 11:25 | X | | 3 | WATER | X | | | | | | Low level VOC | 200911599 |
| 6230 37th | 5/5 | 11:40 | X | | 3 | WATER | X | | | | | | Low level VOC | 600 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: P. RZEPECKI | Date 5/5/09 | Time 11:25AM | Delivery by: AECOM | Date 5/8/09 | Time |
| Received by: [signature] MDH | Date 5809 | Time 1320 | Relinquished by: [signature] | Date 5/8/09 | Time 1320 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

RF003947

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** **19-MAY-2009**

**Client Name:** **MPCA-GW & SW**
**Project Code:** **PL**
**Project Name:** **MPCA-32 METRO MERLA-SF**

**Samples:** **200911659 — 200911661**

**Report To:** **Bill Scruton**
**MPCA-GW & SW**
**520 Lafayette Rd.**
**St. Paul, MN 55155**

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **1 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911659**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1027** | **-** | **B6824 LAKE 3** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **14-MAY-09 22:08** |
| **Dibromofluoromethane (surrogate)** | | **97** | **70-130** | **% Recovery** | **14-MAY-09 22:08** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **96** | **70-130** | **% Recovery** | **14-MAY-09 22:08** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **14-MAY-09 22:08** |
| **Toluene-D8 (surrogate)** | | **118** | **70-130** | **% Recovery** | **14-MAY-09 22:08** |
| Acetone | < | 20 | 20 | ug/L | 14-MAY-09 22:08 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **14-MAY-09 22:08** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| **Chloroform** | | **0.2** | **0.1** | **ug/L** | **14-MAY-09 22:08** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:08 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **2 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911659**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1027** | **-** | **B6824 LAKE 3** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| | 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| | 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 14-MAY-09 22:08 |
| | Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | Ethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | Ethyl ether | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:08 |
| | Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| | Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | Methylene chloride | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 14-MAY-09 22:08 |
| | Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 14-MAY-09 22:08 |
| | Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:08 |
| | Naphthalene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| | n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **3 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911659**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1027** | **-** | **B6824 LAKE 3** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| | Styrene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | **Tetrachloroethene** | | **3.8** | **0.2** | **ug/L** | **14-MAY-09 22:08** |
| | Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 14-MAY-09 22:08 |
| | **Toluene** | **J** | **0.3** | **0.5** | **ug/L** | **14-MAY-09 22:08** |
| | 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:08 |
| | 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | **Trichloroethene (TCE)** | | **2.0** | **0.1** | **ug/L** | **14-MAY-09 22:08** |
| | Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:08 |
| | Vinyl chloride | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | o-Xylene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:08 |
| | p&m-Xylene | < | 0.3 | 0.3 | ug/L | 14-MAY-09 22:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **4 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911660**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1412** | **-** | **B6824 LAKE 2** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **105** | **70-130** | **% Recovery** | **14-MAY-09 22:36** |
| **Dibromofluoromethane (surrogate)** | | **98** | **70-130** | **% Recovery** | **14-MAY-09 22:36** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **14-MAY-09 22:36** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **14-MAY-09 22:36** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **14-MAY-09 22:36** |
| Acetone | < | 20 | 20 | ug/L | 14-MAY-09 22:36 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **14-MAY-09 22:36** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 14-MAY-09 22:36 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:36 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **5 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911660**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1412** | **-** | **B6824 LAKE 2** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| | 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| | 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | cis-1,2-Dichloroethene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | trans-1,2-Dichloroethene | | < | 0.1 | 0.1 | ug/L | 14-MAY-09 22:36 |
| | Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | **Ethylbenzene** | **J** | | **0.3** | **0.5** | **ug/L** | **14-MAY-09 22:36** |
| | Ethyl ether | | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:36 |
| | Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| | Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | Methylene chloride | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 14-MAY-09 22:36 |
| | Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 14-MAY-09 22:36 |
| | Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 14-MAY-09 22:36 |
| | Naphthalene | | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| | n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **6 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911660**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **1412** | **-** | **B6824 LAKE 2** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| | Styrene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | **Tetrachloroethene** | | | **12** | **0.2** | **ug/L** | **14-MAY-09 22:36** |
| | Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 14-MAY-09 22:36 |
| | **Toluene** | **J** | | **0.4** | **0.5** | **ug/L** | **14-MAY-09 22:36** |
| | 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 14-MAY-09 22:36 |
| | 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | **Trichloroethene (TCE)** | | | **0.9** | **0.1** | **ug/L** | **14-MAY-09 22:36** |
| | Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 14-MAY-09 22:36 |
| | Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | o-Xylene | | < | 0.2 | 0.2 | ug/L | 14-MAY-09 22:36 |
| | p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 14-MAY-09 22:36 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **7 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911661(Trip Blank)**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **-** | **-** | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **14-MAY-09 23:05** |
| **Dibromofluoromethane (surrogate)** | | **99** | **70-130** | **% Recovery** | **14-MAY-09 23:05** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **14-MAY-09 23:05** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **14-MAY-09 23:05** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **14-MAY-09 23:05** |
| Acetone | < | 20 | 20 | ug/L | 14-MAY-09 23:05 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Benzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| Bromoform | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 14-MAY-09 23:05 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 14-MAY-09 23:05 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **8 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911661(Trip Blank)**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **-** | **-** | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| | 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| | 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 14-MAY-09 23:05 |
| | Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | Ethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | Ethyl ether | < | 2.0 | 2.0 | ug/L | 14-MAY-09 23:05 |
| | Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| | Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | Methylene chloride | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 14-MAY-09 23:05 |
| | Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 14-MAY-09 23:05 |
| | Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 14-MAY-09 23:05 |
| | Naphthalene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| | n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **9 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK** | **PETER RZSPECKI** |

Sample No: **200911661(Trip Blank)**

Receiving Comments: **-**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **08-MAY-2009** | **-** | **-** | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **19-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 | VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| | Styrene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 14-MAY-09 23:05 |
| | Toluene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 14-MAY-09 23:05 |
| | 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 14-MAY-09 23:05 |
| | Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 14-MAY-09 23:05 |
| | Vinyl chloride | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | o-Xylene | < | 0.2 | 0.2 | ug/L | 14-MAY-09 23:05 |
| | p&m-Xylene | < | 0.3 | 0.3 | ug/L | 14-MAY-09 23:05 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **10 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **-** | **ST. LOUIS PARK** | **PETER RZSPECKI** |

**Result Code Description**

J The analyte was positively identified. The result is below the report level and is estimated.

QR Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **11 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

**All samples analyzed in the batch**

**200911601, 200911615, 200911616, 200911617, 200911618, 200911619, 200911625, 200911628, 200911631, 200911658, 200911659, 200911660, 200911661, 200911710**

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200911659 | 08-MAY-09 | 14-MAY-09 | 6 | 14 DAYS | Y |
| 200911660 | 08-MAY-09 | 14-MAY-09 | 6 | 14 DAYS | Y |
| 200911661 | 08-MAY-09 | 14-MAY-09 | 6 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **12 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 105 | 70-130 |
| Dibromofluoromethane (surrogate) | | 97 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 96 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 93 | 70-130 |
| Toluene-D8 (surrogate) | | 117 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **13 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **14 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 100 | 103 | 70-130 |
| Dibromofluoromethane (surrogate) | | 97 | 98 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 89 | 90 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 93 | 94 | 70-130 |
| Toluene-D8 (surrogate) | | 120 | 120 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 120 | 111 | 8 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 110 | 117 | 7 | 70-130 | 30 |
| Benzene | 5 | ug/L | 106 | 111 | 5 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 97 | 102 | 5 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 106 | 111 | 5 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **15 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 118 | 120 | 2 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 89 | 82 | 8 | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **64*** | **60*** | 7 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 101 | 101 | 1 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 99 | 103 | 4 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 110 | 115 | 4 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 104 | 113 | 8 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 100 | 101 | 1 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 86 | 84 | 2 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 125 | 127 | 2 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 118 | 123 | 4 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 112 | 123 | 9 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 108 | 114 | 5 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 116 | 120 | 3 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (DI | 5 | ug/L | 116 | 119 | 2 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 105 | 109 | 4 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 121 | 126 | 4 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 98 | 100 | 2 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 101 | 104 | 3 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 103 | 110 | 7 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 120 | 127 | 6 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 129 | 128 | 1 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 110 | 120 | 8 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 108 | 126 | 15 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 108 | 113 | 5 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 123 | 122 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **16 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 116 | 123 | 6 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 111 | 114 | 3 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 102 | 92 | 10 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 122 | 128 | 5 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 96 | 99 | 3 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 101 | 102 | 2 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 115 | 118 | 3 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 112 | 115 | 3 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 97 | 102 | 4 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 100 | 108 | 7 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 98 | 102 | 4 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 98 | 101 | 3 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 110 | 112 | 2 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 111 | 117 | 5 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 127 | 128 | 0 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 96 | 113 | 16 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 117 | 121 | 3 | 70-130 | 30 |
| Styrene | 5 | ug/L | 99 | 101 | 2 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 104 | 106 | 2 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 107 | 110 | 3 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 103 | 106 | 3 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 116 | 112 | 4 | 70-130 | 30 |
| Toluene | 5 | ug/L | 99 | 105 | 6 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 98 | 107 | 9 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 96 | 105 | 9 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 124 | 127 | 3 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 109 | 111 | 2 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348726**

Date Received: **08-MAY-2009**
Date Generated: **18-MAY-2009**
Request Page: **17 of 17**

**Samples: 200911659 - 200911661**

Date Reported: **19-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | ST. LOUIS PARK | PETER RZSPECKI |

## Quality Control Batch ID: 20090514.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 113 | 118 | 5 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 125 | 125 | 0 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 109 | 112 | 3 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 112 | 114 | 2 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 110 | 115 | 5 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 109 | 113 | 4 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 116 | 128 | 10 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 99 | 103 | 4 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 108 | 111 | 3 | 70-130 | 30 |

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 22-MAR-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200904537 — 200904545

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **1 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **Dibromofluoromethane (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **Toluene-D8 (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 13: |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| **Benzene** | | **0.3** | **0.2** | **ug/L** | **17-MAR-09 13:** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13: |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 13: |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13: |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13: |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **2 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| **1,1-Dichloroethane** | **J** | **0.16** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **1,1-Dichloroethene** | **J** | **0.4** | **0.5** | **ug/L** | **17-MAR-09 13::** |
| **cis-1,2-Dichloroethene** | | **16** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| **trans-1,2-Dichloroethene** | | **13** | **0.1** | **ug/L** | **17-MAR-09 13::** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:: |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 13:: |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 13:: |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:: |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **3 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904537**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **0945** | - | **B-6714 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **Tetrachloroethene** | | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 13:: |
| **Toluene** | **J** | | **0.2** | **0.5** | **ug/L** | **17-MAR-09 13::** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| **1,1,1-Trichloroethane** | **J** | | **0.1** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **Trichloroethene (TCE)** | | | **9.6** | **0.1** | **ug/L** | **17-MAR-09 13::** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| **Vinyl chloride** | | | **2.3** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 13:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **4 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **Dibromofluoromethane (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| **Toluene-D8 (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 13:** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 13: |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| **Benzene** | | **0.5** | **0.2** | **ug/L** | **17-MAR-09 13:** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13: |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| **Chloroform** | | **0.5** | **0.1** | **ug/L** | **17-MAR-09 13:** |
| **Chloromethane** | | **1.8** | **1.0** | **ug/L** | **17-MAR-09 13:** |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **5 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| **cis-1,2-Dichloroethene** | **J** | **0.1** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 13:: |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **Ethylbenzene** | **J** | **0.46** | **0.5** | **ug/L** | **17-MAR-09 13::** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:: |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 13:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **6 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904538**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1405** | - | **B-6512 WALKER 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of 2-ethylhexanal at 5 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 13:: |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 13:: |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **Tetrachloroethene** | | **3.0** | **0.2** | **ug/L** | **17-MAR-09 13::** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 13:: |
| **Toluene** | | **0.7** | **0.5** | **ug/L** | **17-MAR-09 13::** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 13:: |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| **Trichloroethene (TCE)** | | **2.9** | **0.1** | **ug/L** | **17-MAR-09 13::** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 13:: |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| o-Xylene | PP < | 0.2 | 0.2 | ug/L | 17-MAR-09 13:: |
| p&m-Xylene | PP < | 0.3 | 0.3 | ug/L | 17-MAR-09 13:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **7 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 14:(** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **17-MAR-09 14:(** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 14:(** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 14:(** |
| **Toluene-D8 (surrogate)** | | **102** | **70-130** | **% Recovery** | **17-MAR-09 14:(** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 14:( |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **17-MAR-09 14:(** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| **Chloroform** | | **0.1** | **0.1** | **ug/L** | **17-MAR-09 14:(** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:( |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **8 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 14:( |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:( |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 14:( |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 14:( |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:( |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **9 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904539**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **03-MAR-2009** | **1655** | - | **B-6712 WALKER 3 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| **Tetrachloroethene** | | | **11** | **0.2** | **ug/L** | **17-MAR-09 14:(** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 14:( |
| **Toluene** | J | | **0.3** | **0.5** | **ug/L** | **17-MAR-09 14:(** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:( |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| **Trichloroethene (TCE)** | | | **2.7** | **0.1** | **ug/L** | **17-MAR-09 14:(** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:( |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:( |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 14:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **10 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 14:** |
| **Dibromofluoromethane (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 14:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 14:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 14:** |
| **Toluene-D8 (surrogate)** | | **92** | **70-130** | **% Recovery** | **17-MAR-09 14:** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 14: |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14: |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14: |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| **Chloroform** | **J** | **0.08** | **0.1** | **ug/L** | **17-MAR-09 14:** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14: |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14: |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **11 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:: |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| **cis-1,2-Dichloroethene** | | **0.4** | **0.2** | **ug/L** | **17-MAR-09 14::** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **17-MAR-09 14::** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:: |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:: |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 14:: |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 14:: |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 14:: |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:: |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **12 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904540**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1210** | - | **B-6712 WALKER 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| **Tetrachloroethene** | **RC** | | **1,800** | **5.0** | **ug/L** | **17-MAR-09 14::** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 14:: |
| **Toluene** | **J** | | **0.1** | **0.5** | **ug/L** | **17-MAR-09 14::** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 14:: |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| **1,1,1-Trichloroethane** | | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 14::** |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| **Trichloroethene (TCE)** | | | **4.4** | **0.1** | **ug/L** | **17-MAR-09 14::** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 14:: |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 14:: |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 14:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **13 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **17-MAR-09 15:(** |
| **Dibromofluoromethane (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 15:(** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **98** | **70-130** | **% Recovery** | **17-MAR-09 15:(** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **17-MAR-09 15:(** |
| **Toluene-D8 (surrogate)** | | **93** | **70-130** | **% Recovery** | **17-MAR-09 15:(** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 15:( |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 15:( |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:( |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **14 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Dichlorodifluoromethane | QR | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| **cis-1,2-Dichloroethene** | | | **0.4** | **0.2** | **ug/L** | **17-MAR-09 15:(** |
| **trans-1,2-Dichloroethene** | | | **0.2** | **0.1** | **ug/L** | **17-MAR-09 15:(** |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:( |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 17-MAR-09 15:( |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 17-MAR-09 15:( |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15:( |
| Naphthalene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **15 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904541**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1220** | - | **B-6712 WALKER 11 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| **Tetrachloroethene** | **RC** | | **1,800** | **5.0** | **ug/L** | **17-MAR-09 15:(** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 15:( |
| **Toluene** | **J** | | **0.2** | **0.5** | **ug/L** | **17-MAR-09 15:(** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15:( |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| **1,1,1-Trichloroethane** | | | **0.2** | **0.2** | **ug/L** | **17-MAR-09 15:(** |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| **Trichloroethene (TCE)** | | | **4.0** | **0.1** | **ug/L** | **17-MAR-09 15:(** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| 1,2,4-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| 1,3,5-Trimethylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15:( |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| o-Xylene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15:( |
| p&m-Xylene | | < | 0.3 | 0.3 | ug/L | 17-MAR-09 15:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **16 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **102** | **70-130** | **% Recovery** | **17-MAR-09 15:** |
| **Dibromofluoromethane (surrogate)** | | **93** | **70-130** | **% Recovery** | **17-MAR-09 15:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **101** | **70-130** | **% Recovery** | **17-MAR-09 15:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **17-MAR-09 15:** |
| **Toluene-D8 (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 15:** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 15: |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| **Benzene** | **RC** | **47** | **2.0** | **ug/L** | **17-MAR-09 15:** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15: |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| **tert-Butylbenzene** | | **7.6** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 15: |
| **Chloromethane** | | **1.1** | **1.0** | **ug/L** | **17-MAR-09 15:** |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15: |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **17 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 15: |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| **cis-1,2-Dichloroethene** | | **2.0** | **0.2** | **ug/L** | **17-MAR-09 15:** |
| **trans-1,2-Dichloroethene** | | **3.9** | **0.1** | **ug/L** | **17-MAR-09 15:** |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| **Ethylbenzene** | **RC** | **53** | **5.0** | **ug/L** | **17-MAR-09 15:** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15: |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15: |
| **Isopropylbenzene** | | **11** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 15: |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 15: |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 15: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **18 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904542**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAR-2009** | **1655** | - | **B-3340 GORHAM 1 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 450 µg/L (concentration estimated).

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| **Naphthalene** | RC | | **1,800** | **50** | **ug/L** | **17-MAR-09 15:** |
| **n-Propylbenzene** | | | **3.2** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| **Styrene** | | | **1.6** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| **Tetrachloroethene** | | | **1.5** | **0.2** | **ug/L** | **17-MAR-09 15:** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 15: |
| **Toluene** | | | **3.5** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 15: |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| **Trichloroethene (TCE)** | | | **6.9** | **0.1** | **ug/L** | **17-MAR-09 15:** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 15: |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| **1,2,4-Trimethylbenzene** | RC | | **39** | **5.0** | **ug/L** | **17-MAR-09 15:** |
| **1,3,5-Trimethylbenzene** | | | **14** | **0.5** | **ug/L** | **17-MAR-09 15:** |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 15: |
| **o-Xylene** | RC | | **34** | **2.0** | **ug/L** | **17-MAR-09 15:** |
| **p&m-Xylene** | RC | | **37** | **3.0** | **ug/L** | **17-MAR-09 15:** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **19 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| Tentative detection of indane at 440 µg/L (concentration estimated). | | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | | **104** | **70-130** | **% Recovery** | **17-MAR-09 16:(** |
| **Dibromofluoromethane (surrogate)** | | | **93** | **70-130** | **% Recovery** | **17-MAR-09 16:(** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | | **101** | **70-130** | **% Recovery** | **17-MAR-09 16:(** |
| **1,2-Dichloroethane-D4 (surrogate)** | | | **95** | **70-130** | **% Recovery** | **17-MAR-09 16:(** |
| **Toluene-D8 (surrogate)** | | | **104** | **70-130** | **% Recovery** | **17-MAR-09 16:(** |
| Acetone | | < | 20 | 20 | ug/L | 17-MAR-09 16:( |
| Allyl chloride | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| **Benzene** | **RC** | | **48** | **2.0** | **ug/L** | **17-MAR-09 16:(** |
| Bromobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| Bromochloromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Bromodichloromethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| Bromoform | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Bromomethane | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:( |
| n-Butylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| sec-Butylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| tert-Butylbenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Carbon tetrachloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| Chlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| Chlorodibromomethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Chloroethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Chloroform | | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:( |
| Chloromethane | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:( |
| 2-Chlorotoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| 4-Chlorotoluene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| 1,2-Dibromo-3-chloropropane (DBCP) | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:( |
| 1,2-Dibromoethane (EDB) | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **20 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 440 µg/L (concentration estimated).

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| Dibromomethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| Dichlorodifluoromethane | QR | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:( |
| 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| **cis-1,2-Dichloroethene** | **J** | | **0.1** | **0.2** | **ug/L** | **17-MAR-09 16:(** |
| trans-1,2-Dichloroethene | | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:( |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| 2,2-Dichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:( |
| **Ethylbenzene** | **RC** | | **59** | **5.0** | **ug/L** | **17-MAR-09 16:(** |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:( |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:( |
| **Isopropylbenzene** | | | **12** | **0.5** | **ug/L** | **17-MAR-09 16:(** |
| **p-Isopropyltoluene** | | | **0.8** | **0.5** | **ug/L** | **17-MAR-09 16:(** |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:( |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 17-MAR-09 16:( |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 17-MAR-09 16:( |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:( |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **21 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904543**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAR-2009** | **1245** | - | **B-3340 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of indane at 440 µg/L (concentration estimated).

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| **Naphthalene** | RC | | **1,300** | **50** | **ug/L** | **17-MAR-09 16:** |
| **n-Propylbenzene** | | | **2.7** | **0.5** | **ug/L** | **17-MAR-09 16:** |
| Styrene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 1,1,1,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| 1,1,2,2-Tetrachloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| **Tetrachloroethene** | | | **0.6** | **0.2** | **ug/L** | **17-MAR-09 16:** |
| Tetrahydrofuran (THF) | | < | 10 | 10 | ug/L | 17-MAR-09 16: |
| **Toluene** | | | **3.6** | **0.5** | **ug/L** | **17-MAR-09 16:** |
| 1,2,3-Trichlorobenzene | | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16: |
| 1,2,4-Trichlorobenzene | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 1,1,1-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| 1,1,2-Trichloroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| **Trichloroethene (TCE)** | J | | **0.099** | **0.1** | **ug/L** | **17-MAR-09 16:** |
| Trichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 1,2,3-Trichloropropane | | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 1,1,2-Trichlorotrifluoroethane | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| **1,2,4-Trimethylbenzene** | RC | | **36** | **5.0** | **ug/L** | **17-MAR-09 16:** |
| **1,3,5-Trimethylbenzene** | | | **8.5** | **0.5** | **ug/L** | **17-MAR-09 16:** |
| Vinyl chloride | | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| **o-Xylene** | RC | | **38** | **2.0** | **ug/L** | **17-MAR-09 16:** |
| **p&m-Xylene** | RC | | **29** | **3.0** | **ug/L** | **17-MAR-09 16:** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **22 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 16:** |
| **Dibromofluoromethane (surrogate)** | | **91** | **70-130** | **% Recovery** | **17-MAR-09 16:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 16:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 16:** |
| **Toluene-D8 (surrogate)** | | **105** | **70-130** | **% Recovery** | **17-MAR-09 16:** |
| **Acetone** | | **29** | **20** | **ug/L** | **17-MAR-09 16:** |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| **Benzene** | **RC** | **76** | **2.0** | **ug/L** | **17-MAR-09 16:** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| Bromomethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16: |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16: |
| **Chloromethane** | **J** | **0.6** | **1.0** | **ug/L** | **17-MAR-09 16:** |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **23 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:: |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:: |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| **Ethylbenzene** | | **17** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:: |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:: |
| **Isopropylbenzene** | | **3.0** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 16:: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **24 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904544**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | **1430** | - | **B-3326 GORHAM 2 (W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

468 VOCs in Water by GC/MS -EPA 524.2
Tentative detection of isopropyl alcohol at 95 µg/L, indane at 205 µg/L and indene at 25 µg/L (concentration estimated).

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 16:: |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 16:: |
| **Naphthalene** | **RC** | **350** | **10** | **ug/L** | **17-MAR-09 16::** |
| **n-Propylbenzene** | | **0.5** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| **Tetrachloroethene** | | **0.5** | **0.2** | **ug/L** | **17-MAR-09 16::** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 16:: |
| **Toluene** | | **1.2** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 16:: |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 17-MAR-09 16:: |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 16:: |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| **1,2,4-Trimethylbenzene** | | **4.8** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| **1,3,5-Trimethylbenzene** | | **1.2** | **0.5** | **ug/L** | **17-MAR-09 16::** |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 16:: |
| **o-Xylene** | | **10** | **0.2** | **ug/L** | **17-MAR-09 16::** |
| **p&m-Xylene** | | **8.9** | **0.3** | **ug/L** | **17-MAR-09 16::** |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **25 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 12:** |
| **Dibromofluoromethane (surrogate)** | | **95** | **70-130** | **% Recovery** | **17-MAR-09 12:** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **99** | **70-130** | **% Recovery** | **17-MAR-09 12:** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **100** | **70-130** | **% Recovery** | **17-MAR-09 12:** |
| **Toluene-D8 (surrogate)** | | **103** | **70-130** | **% Recovery** | **17-MAR-09 12:** |
| Acetone | < | 20 | 20 | ug/L | 17-MAR-09 12: |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Benzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12: |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12: |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12: |
| Bromoform | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| **Bromomethane** | **J** | **0.5** | **1.0** | **ug/L** | **17-MAR-09 12:** |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12: |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12: |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Chloroform | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12: |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12: |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12: |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12: |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **26 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| Dichlorodifluoromethane | QR < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:4 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12:4 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12:4 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:4 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 17-MAR-09 12:4 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 17-MAR-09 12:4 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 17-MAR-09 12:4 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:4 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **27 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

Sample No: **200904545(Trip Blank)**

Receiving Comments: -

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAR-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **22-MAR-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 17-MAR-09 12:4 |
| Toluene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 17-MAR-09 12:4 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 17-MAR-09 12:4 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 17-MAR-09 12:4 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 17-MAR-09 12:4 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 17-MAR-09 12:4 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **344519**

Date Received: **09-MAR-2009**
Date Generated: **22-MAR-2009**
Request Page: **28 of 28**

**Samples: 200904537 - 200904545**

Date Reported: **22-MAR-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| - | **ST. LOUIS PARK INVESTIGATION** | **RYAN DOHERTY** |

**Result Code Description**

| | |
|---|---|
| J | The analyte was positively identified. The result is below the report level and is estimated. |
| PP | Peak present below report level |
| QR | Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated. |
| RC | Report level was changed due to sample dilution. |

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 20-MAY-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200911587 — 200911594

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **1 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911587**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1201** | - | **B-6425 OXFORD 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **15-MAY-09 20:47** |
| **Dibromofluoromethane (surrogate)** | | **97** | **70-130** | **% Recovery** | **15-MAY-09 20:47** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **15-MAY-09 20:47** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **15-MAY-09 20:47** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **15-MAY-09 20:47** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 20:47 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 20:47 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 20:47 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **2 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911587**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1201** | **-** | **B-6425 OXFORD 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 20:47 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 20:47 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 20:47 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 20:47 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 20:47 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **3 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911587**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1201** | - | **B-6425 OXFORD 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 20:47 |
| Toluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:47 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 20:47 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:47 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:47 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 20:47 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **4 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911588**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1330** | **-** | **B-6425 OXFORD 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **105** | **70-130** | **% Recovery** | **15-MAY-09 21:16** |
| **Dibromofluoromethane (surrogate)** | | **95** | **70-130** | **% Recovery** | **15-MAY-09 21:16** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **15-MAY-09 21:16** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **15-MAY-09 21:16** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **15-MAY-09 21:16** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 21:16 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| **Benzene** | | **0.3** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 21:16 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 21:16 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **5 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911588**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1330** | - | **B-6425 OXFORD 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| **1,1-Dichloroethane** | J | | **0.16** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| **1,2-Dichloroethane** | | | **0.9** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| **cis-1,2-Dichloroethene** | | | **0.8** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| trans-1,2-Dichloroethene | | < | 0.1 | 0.1 | ug/L | 15-MAY-09 21:16 |
| **Dichlorofluoromethane** | | | **2.3** | **0.5** | **ug/L** | **15-MAY-09 21:16** |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 2,2-Dichloropropane | QO | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 15-MAY-09 21:16 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 15-MAY-09 21:16 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 15-MAY-09 21:16 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 15-MAY-09 21:16 |
| Naphthalene | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **6 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911588**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1330** | **-** | **B-6425 OXFORD 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| **Tetrachloroethene** | **J** | **0.18** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 21:16 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **15-MAY-09 21:16** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:16 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| **Trichloroethene (TCE)** | | **0.2** | **0.1** | **ug/L** | **15-MAY-09 21:16** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:16 |
| **Vinyl chloride** | | **1.4** | **0.2** | **ug/L** | **15-MAY-09 21:16** |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:16 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 21:16 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **7 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911589**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1030** | **-** | **B-6528 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **15-MAY-09 21:45** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 21:45** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **15-MAY-09 21:45** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **15-MAY-09 21:45** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **15-MAY-09 21:45** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 21:45 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 21:45 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 21:45 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **8 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911589**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1030** | **-** | **B-6528 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 21:45 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 21:45 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 21:45 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 21:45 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 21:45 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **9 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911589**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1030** | **-** | **B-6528 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 21:45 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **15-MAY-09 21:45** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 21:45 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| **Trichloroethene (TCE)** | **J** | **0.05** | **0.1** | **ug/L** | **15-MAY-09 21:45** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 21:45 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 21:45 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 21:45 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **10 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911590**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1503** | - | **B-6500 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **15-MAY-09 22:13** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 22:13** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 22:13** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **15-MAY-09 22:13** |
| **Toluene-D8 (surrogate)** | | **118** | **70-130** | **% Recovery** | **15-MAY-09 22:13** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 22:13 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 22:13 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 22:13 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **11 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911590**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1503** | - | **B-6500 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 22:13 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 22:13 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 22:13 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 22:13 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 22:13 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **12 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911590**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **05-MAY-2009** | **1503** | **-** | **B-6500 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 22:13 |
| Toluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:13 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 22:13 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:13 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:13 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 22:13 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **13 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911591**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1030** | **-** | **B-6500 LAKE 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **105** | **70-130** | **% Recovery** | **15-MAY-09 22:42** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 22:42** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 22:42** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **92** | **70-130** | **% Recovery** | **15-MAY-09 22:42** |
| **Toluene-D8 (surrogate)** | | **118** | **70-130** | **% Recovery** | **15-MAY-09 22:42** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 22:42 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **15-MAY-09 22:42** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 22:42 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 22:42 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **14 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911591**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1030** | **-** | **B-6500 LAKE 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 22:42 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 22:42 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 22:42 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 22:42 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 22:42 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **15 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911591**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1030** | - | **B-6500 LAKE 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 22:42 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **15-MAY-09 22:42** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 22:42 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 22:42 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 22:42 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 22:42 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 22:42 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **16 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911592**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1345** | **-** | **B-6500 LAKE 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **105** | **70-130** | **% Recovery** | **15-MAY-09 23:11** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 23:11** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **97** | **70-130** | **% Recovery** | **15-MAY-09 23:11** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **15-MAY-09 23:11** |
| **Toluene-D8 (surrogate)** | | **118** | **70-130** | **% Recovery** | **15-MAY-09 23:11** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 23:11 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **15-MAY-09 23:11** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 23:11 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 23:11 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **17 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911592**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1345** | **-** | **B-6500 LAKE 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 23:11 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 23:11 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 23:11 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 23:11 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 23:11 |
| Naphthalene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| n-Propylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **18 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911592**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **06-MAY-2009** | **1345** | **-** | **B-6500 LAKE 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 23:11 |
| **Toluene** | **J** | **0.2** | **0.5** | **ug/L** | **15-MAY-09 23:11** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:11 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 23:11 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:11 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:11 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 23:11 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **19 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911593**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1610** | **-** | **B-6425 OXFORD 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **15-MAY-09 23:39** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 23:39** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **15-MAY-09 23:39** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **92** | **70-130** | **% Recovery** | **15-MAY-09 23:39** |
| **Toluene-D8 (surrogate)** | | **116** | **70-130** | **% Recovery** | **15-MAY-09 23:39** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 23:39 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 23:39 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 23:39 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **20 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

Sample No: **200911593**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1610** | - | **B-6425 OXFORD 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| **1,2-Dichloroethane** | | **0.3** | **0.2** | **ug/L** | **15-MAY-09 23:39** |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| **cis-1,2-Dichloroethene** | | **0.5** | **0.2** | **ug/L** | **15-MAY-09 23:39** |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 15-MAY-09 23:39 |
| **Dichlorofluoromethane** | | **0.5** | **0.5** | **ug/L** | **15-MAY-09 23:39** |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 2,2-Dichloropropane | QO < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 15-MAY-09 23:39 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 15-MAY-09 23:39 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 15-MAY-09 23:39 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 23:39 |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **21 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911593**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | **1610** | **-** | **B-6425 OXFORD 3(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| **Tetrachloroethene** | | **1.7** | **0.2** | **ug/L** | **15-MAY-09 23:39** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 23:39 |
| **Toluene** | **J** | **0.1** | **0.5** | **ug/L** | **15-MAY-09 23:39** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 23:39 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| **1,1,2-Trichloroethane** | **J** | **0.1** | **0.2** | **ug/L** | **15-MAY-09 23:39** |
| **Trichloroethene (TCE)** | | **1.5** | **0.1** | **ug/L** | **15-MAY-09 23:39** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 23:39 |
| **Vinyl chloride** | **J** | **0.1** | **0.2** | **ug/L** | **15-MAY-09 23:39** |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 23:39 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 23:39 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **22 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911594(Trip Blank)**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **105** | **70-130** | **% Recovery** | **15-MAY-09 19:50** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **15-MAY-09 19:50** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **15-MAY-09 19:50** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **15-MAY-09 19:50** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **15-MAY-09 19:50** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 19:50 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 19:50 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 19:50 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **23 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911594 (Trip Blank)**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | | |
| 1,2-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,3-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,4-Dichlorobenzene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Dichlorodifluoromethane | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| 1,1-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,2-Dichloroethane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,1-Dichloroethene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| cis-1,2-Dichloroethene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| trans-1,2-Dichloroethene | | < | 0.1 | 0.1 | ug/L | 15-MAY-09 19:50 |
| Dichlorofluoromethane | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,2-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,3-Dichloropropane | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 2,2-Dichloropropane | QO | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,1-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| cis-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| trans-1,3-Dichloropropene | | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Ethylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Ethyl ether | | < | 2.0 | 2.0 | ug/L | 15-MAY-09 19:50 |
| Hexachlorobutadiene | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| Isopropylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| p-Isopropyltoluene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Methylene chloride | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Methyl ethyl ketone (MEK) | | < | 10 | 10 | ug/L | 15-MAY-09 19:50 |
| Methyl isobutyl ketone (MIBK) | | < | 5.0 | 5.0 | ug/L | 15-MAY-09 19:50 |
| Methyl tertiary butyl ether (MTBE) | | < | 2.0 | 2.0 | ug/L | 15-MAY-09 19:50 |
| Naphthalene | | < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| n-Propylbenzene | | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **24 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

Sample No: **200911594 (Trip Blank)**

Receiving Comments: **LOW LEVEL VOCS**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **04-MAY-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 19:50 |
| Toluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 19:50 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 19:50 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 19:50 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 19:50 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 19:50 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **25 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

**Result Code Description**

J The analyte was positively identified. The result is below the report level and is estimated.

QL RPD between LCS/LCSD for this analyte did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

QO Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. Since the recovery showed a positive bias and the analyte was not detected in the sample, the sample result for this analyte was accepted without qualification.

QR Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **26 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK | - |

## Quality Control Batch ID: 20090515.11 AN: 468

**All samples analyzed in the batch**

200911587, 200911588, 200911589, 200911590, 200911591, 200911592, 200911593, 200911594, 200911595, 200911596, 200911598

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200911587 | 04-MAY-09 | 15-MAY-09 | 11 | 14 DAYS | Y |
| 200911588 | 04-MAY-09 | 15-MAY-09 | 11 | 14 DAYS | Y |
| 200911589 | 05-MAY-09 | 15-MAY-09 | 10 | 14 DAYS | Y |
| 200911590 | 05-MAY-09 | 15-MAY-09 | 10 | 14 DAYS | Y |
| 200911591 | 06-MAY-09 | 15-MAY-09 | 9 | 14 DAYS | Y |
| 200911592 | 06-MAY-09 | 15-MAY-09 | 9 | 14 DAYS | Y |
| 200911593 | 04-MAY-09 | 15-MAY-09 | 11 | 14 DAYS | Y |
| 200911594 | 04-MAY-09 | 15-MAY-09 | 11 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **27 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 104 | 70-130 |
| Dibromofluoromethane (surrogate) | | 96 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 96 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 93 | 70-130 |
| Toluene-D8 (surrogate) | | 118 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **28 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **29 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 103 | 100 | 70-130 |
| Dibromofluoromethane (surrogate) | | 98 | 98 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 89 | 87 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 92 | 92 | 70-130 |
| Toluene-D8 (surrogate) | | 119 | 120 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 95 | 108 | 13 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 116 | 108 | 7 | 70-130 | 30 |
| Benzene | 5 | ug/L | 105 | 105 | 0 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 99 | 96 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 106 | 102 | 4 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **30 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 5 | ug/L | 124 | 113 | 9 | 70-130 | 30 |
| **Bromoform** | 5 | ug/L | 113 | 78 | **37*** | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **54*** | **48*** | 12 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 99 | 99 | 0 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 97 | 97 | 1 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 110 | 107 | 2 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 107 | 97 | 10 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 98 | 96 | 2 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 100 | 78 | 24 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 119 | 113 | 6 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 117 | 116 | 1 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 112 | 107 | 4 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 109 | 105 | 3 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 115 | 112 | 3 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 126 | 112 | 12 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 111 | 107 | 4 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 118 | 120 | 2 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 98 | 94 | 4 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 102 | 98 | 3 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 98 | 97 | 1 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 88 | 85 | 3 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 119 | 118 | 1 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 129 | 128 | 1 | 70-130 | 30 |
| 1,1-Dichloroethene | 5 | ug/L | 106 | 104 | 3 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 112 | 108 | 4 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 106 | 103 | 3 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 120 | 116 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **31 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 112 | 110 | 1 | 70-130 | 30 |
| **2,2-Dichloropropane** | 5 | ug/L | **139*** | 111 | 23 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 121 | 117 | 3 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 103 | 94 | 10 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 106 | 96 | 10 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 114 | 112 | 1 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 112 | 111 | 0 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 93 | 93 | 0 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 101 | 98 | 3 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 96 | 96 | 0 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 94 | 93 | 1 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 111 | 111 | 0 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 120 | 115 | 4 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 125 | 123 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 95 | 95 | 0 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 116 | 113 | 2 | 70-130 | 30 |
| Styrene | 5 | ug/L | 98 | 97 | 1 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 108 | 100 | 8 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 112 | 110 | 1 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 105 | 101 | 4 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 116 | 118 | 2 | 70-130 | 30 |
| Toluene | 5 | ug/L | 99 | 99 | 1 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 97 | 96 | 1 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 99 | 96 | 3 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 128 | 119 | 7 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 109 | 106 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348712**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **32 of 32**

**Samples: 200911587 - 200911594**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK** | **-** |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Trichloroethene (TCE) | 5 | ug/L | 113 | 110 | 2 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 115 | 114 | 1 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 112 | 111 | 1 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 106 | 104 | 2 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 110 | 109 | 1 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 108 | 106 | 2 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 110 | 102 | 7 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 98 | 98 | 0 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 106 | 105 | 1 | 70-130 | 30 |

200911587 thru 200911594 * MPCA

STS | AECOM

№ 4215

# ain of Custody Record

Record Number 4215 Through 4215

t Person Peter Rzepecki / Dave Moore (MPCA)
No. 763 (352-4245) Office Minneapolis
No. 04660024 PO No.
t Name St Louis Park

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Laboratory MDH
Contact Person
Phone No. 651 201 4952
Results Due STD

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 5°C |
| B-6425 Oxford #1 (w) | 5/4/09 | 1200 | X | | 3 | Water | 3 | N | | | | | low level VOCs | 200911587 |
| B-6425 Oxford #2 (w) | | 1330 | X | | 3 | | 3 | N | | | | | | 588 |
| B-6525 Lake #1 (w) | 5/5 | 1030 | X | | 3 | | 3 | N | | | | | | 589 |
| B-6500 Lake #1 (w) | | 1503 | X | | 3 | | 3 | N | | | | | | 590 |
| B-6500 Lake #2 (w) | 5/6 | 1030 | X | | 3 | | 3 | N | | | | | | 591 |
| B-6500 Lake #3 (w) | | 1345 | X | | 3 | | 3 | N | | | | | | 592 |
| B 6425 Oxford #3 (w) | 5/4 | 1610 | X | | 3 | | 3 | N | | | | | | 593 |
| TBIP Blank | — | — | Y | | 1 | | 1 | N | | | | | | 594 |
| | | | | | | | | | | | | | | SCN |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: J Tom Boyle | Date 5/6/09 | See Time Above | Delivery by: AECOM | Date 5/8/09 | Time |
| Received by: [signature] MDH | Date 5/8/09 | Time 1320 | Relinquished by: [signature] | Date 5/8/09 | Time 1320 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

Final Disposition:

Comments (Weather Conditions, Precautions, Hazards):

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

MINNESOTA MDH DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

**Report Date:** 20-MAY-2009

**Client Name:** MPCA-GW & SW
**Project Code:** PL
**Project Name:** MPCA-32 METRO MERLA-SF

**Samples:** 200911595 — 200911598

**Report To:** Bill Scruton
MPCA-GW & SW
520 Lafayette Rd.
St. Paul, MN 55155

The MDH Public Health Laboratory performs chemical, bacteriological and radiological analyses of environmental samples including water, waste water, sediment, air, soil and hazardous material. The laboratory provides testing services in accordance with standard operating procedures referencing approved methodology and defined in Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waster, Physical/Chemical Methods:EPA SW-846, and 40 Code of Federal Regulation (CFR) parts 136, 141, and 261. In cases where analytes of interest do not have corresponding EPA approved methodology, the MDH Public Health Laboratory uses in-house methods that have undergone rigorous validation and documentation.

The results within this report are in compliance with the terms and conditions stated in the standard operation procedures, reference methodologies, and quality assurance project plan; unless otherwise narrated in the attached report.

Release of the data contained in this report has been authorized by laboratory management and is verified with the following signature affirmation. Thank you for using the MDH Public Health Laboratory. If you have any questions regarding this report, please call us at 651.201.5300.

Sincerely,

Suzanne Skorich
Environmental Laboratory, Quality Assurance Officer

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **1 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

Sample No: **200911595**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| 07-MAY-2009 | 0940 | - | B-6504 WALKER 1(W) |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **16-MAY-09 00:08** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **16-MAY-09 00:08** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **16-MAY-09 00:08** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **92** | **70-130** | **% Recovery** | **16-MAY-09 00:08** |
| **Toluene-D8 (surrogate)** | | **116** | **70-130** | **% Recovery** | **16-MAY-09 00:08** |
| Acetone | < | 20 | 20 | ug/L | 16-MAY-09 00:08 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Benzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 16-MAY-09 00:08 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 00:08 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **2 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

Sample No: **200911595**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| 07-MAY-2009 | 0940 | - | B-6504 WALKER 1(W) |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Dibromomethane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| **cis-1,2-Dichloroethene** | | **0.3** | **0.2** | **ug/L** | **16-MAY-09 00:08** |
| **trans-1,2-Dichloroethene** | | **0.2** | **0.1** | **ug/L** | **16-MAY-09 00:08** |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 16-MAY-09 00:08 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 16-MAY-09 00:08 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 16-MAY-09 00:08 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 16-MAY-09 00:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **3 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911595**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **0940** | **-** | **B-6504 WALKER 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Styrene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| **Tetrachloroethene** | | **58** | **0.2** | **ug/L** | **16-MAY-09 00:08** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 16-MAY-09 00:08 |
| Toluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:08 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| **Trichloroethene (TCE)** | | **3.8** | **0.1** | **ug/L** | **16-MAY-09 00:08** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:08 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:08 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 16-MAY-09 00:08 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **4 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911596**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1311** | **-** | **B-6504 WALKER 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **104** | **70-130** | **% Recovery** | **16-MAY-09 00:37** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **16-MAY-09 00:37** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **16-MAY-09 00:37** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **16-MAY-09 00:37** |
| **Toluene-D8 (surrogate)** | | **119** | **70-130** | **% Recovery** | **16-MAY-09 00:37** |
| Acetone | < | 20 | 20 | ug/L | 16-MAY-09 00:37 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| **Benzene** | **J** | **0.1** | **0.2** | **ug/L** | **16-MAY-09 00:37** |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| **Bromodichloromethane** | | **0.3** | **0.2** | **ug/L** | **16-MAY-09 00:37** |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| **Chloroform** | | **0.5** | **0.1** | **ug/L** | **16-MAY-09 00:37** |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 00:37 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **5 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911596**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1311** | **-** | **B-6504 WALKER 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Dibromomethane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 16-MAY-09 00:37 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 16-MAY-09 00:37 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 16-MAY-09 00:37 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 16-MAY-09 00:37 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 16-MAY-09 00:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **6 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911596**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1311** | **-** | **B-6504 WALKER 2(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Styrene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| **Tetrachloroethene** | | **1.2** | **0.2** | **ug/L** | **16-MAY-09 00:37** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 16-MAY-09 00:37 |
| **Toluene** | **J** | **0.3** | **0.5** | **ug/L** | **16-MAY-09 00:37** |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 00:37 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| **Trichloroethene (TCE)** | | **3.4** | **0.1** | **ug/L** | **16-MAY-09 00:37** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 00:37 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 00:37 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 16-MAY-09 00:37 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **7 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911597**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1639** | **-** | **B-6824 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **16-MAY-09 02:03** |
| **Dibromofluoromethane (surrogate)** | | **96** | **70-130** | **% Recovery** | **16-MAY-09 02:03** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **96** | **70-130** | **% Recovery** | **16-MAY-09 02:03** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **95** | **70-130** | **% Recovery** | **16-MAY-09 02:03** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **16-MAY-09 02:03** |
| Acetone | < | 20 | 20 | ug/L | 16-MAY-09 02:03 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Benzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 16-MAY-09 02:03 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:03 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **8 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911597**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1639** | **-** | **B-6824 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Dibromomethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,2-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,3-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,4-Dichlorobenzene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Dichlorodifluoromethane | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| 1,1-Dichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,2-Dichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,1-Dichloroethene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| cis-1,2-Dichloroethene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| trans-1,2-Dichloroethene | < | 0.1 | 0.1 | ug/L | 16-MAY-09 02:03 |
| Dichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,2-Dichloropropane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,3-Dichloropropane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 2,2-Dichloropropane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,1-Dichloropropene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| cis-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| trans-1,3-Dichloropropene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| Ethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Ethyl ether | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:03 |
| Hexachlorobutadiene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| Isopropylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| p-Isopropyltoluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Methylene chloride | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Methyl ethyl ketone (MEK) | < | 10 | 10 | ug/L | 16-MAY-09 02:03 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | 5.0 | ug/L | 16-MAY-09 02:03 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | 2.0 | ug/L | 16-MAY-09 02:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **9 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911597**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **1639** | **-** | **B-6824 LAKE 1(W)** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Styrene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| **Tetrachloroethene** | | **4.7** | **0.2** | **ug/L** | **16-MAY-09 02:03** |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 16-MAY-09 02:03 |
| Toluene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 16-MAY-09 02:03 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| **Trichloroethene (TCE)** | | **1.5** | **0.1** | **ug/L** | **16-MAY-09 02:03** |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 16-MAY-09 02:03 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 16-MAY-09 02:03 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 16-MAY-09 02:03 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **10 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

Sample No: **200911598 (Trip Blank)**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| 07-MAY-2009 | - | - | TRIP BLANK |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| **4-Bromofluorobenzene (surrogate)** | | **103** | **70-130** | **% Recovery** | **15-MAY-09 20:19** |
| **Dibromofluoromethane (surrogate)** | | **97** | **70-130** | **% Recovery** | **15-MAY-09 20:19** |
| **1,2-Dichlorobenzene-D4 (surrogate)** | | **93** | **70-130** | **% Recovery** | **15-MAY-09 20:19** |
| **1,2-Dichloroethane-D4 (surrogate)** | | **94** | **70-130** | **% Recovery** | **15-MAY-09 20:19** |
| **Toluene-D8 (surrogate)** | | **117** | **70-130** | **% Recovery** | **15-MAY-09 20:19** |
| Acetone | < | 20 | 20 | ug/L | 15-MAY-09 20:19 |
| Allyl chloride | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Benzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Bromobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Bromochloromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Bromodichloromethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Bromoform | QL < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Bromomethane | QR < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| n-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| sec-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| tert-Butylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Carbon tetrachloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Chlorobenzene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Chlorodibromomethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Chloroethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Chloroform | < | 0.1 | 0.1 | ug/L | 15-MAY-09 20:19 |
| Chloromethane | < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| 2-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 4-Chlorotoluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | 2.0 | ug/L | 15-MAY-09 20:19 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **11 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911598 (Trip Blank)**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | **-** | **-** | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Dibromomethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,2-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,3-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,4-Dichlorobenzene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Dichlorodifluoromethane | | < 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| 1,1-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,2-Dichloroethane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,1-Dichloroethene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| cis-1,2-Dichloroethene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| trans-1,2-Dichloroethene | | < 0.1 | 0.1 | ug/L | 15-MAY-09 20:19 |
| Dichlorofluoromethane | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,2-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,3-Dichloropropane | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 2,2-Dichloropropane | QO | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,1-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| cis-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| trans-1,3-Dichloropropene | | < 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Ethylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Ethyl ether | | < 2.0 | 2.0 | ug/L | 15-MAY-09 20:19 |
| Hexachlorobutadiene | | < 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| Isopropylbenzene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| p-Isopropyltoluene | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Methylene chloride | | < 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Methyl ethyl ketone (MEK) | | < 10 | 10 | ug/L | 15-MAY-09 20:19 |
| Methyl isobutyl ketone (MIBK) | | < 5.0 | 5.0 | ug/L | 15-MAY-09 20:19 |
| Methyl tertiary butyl ether (MTBE) | | < 2.0 | 2.0 | ug/L | 15-MAY-09 20:19 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **12 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

Sample No: **200911598 (Trip Blank)**

Receiving Comments: **LOW LEVEL VOC**

| Coll Date | Coll Time | Field No | Sampling Point |
|---|---|---|---|
| **07-MAY-2009** | - | - | **TRIP BLANK** |

********** SAMPLE RESULTS **********

**Unit: ORGANIC CHEMISTRY** Reviewed By **PDS** on **20-MAY-09**

**Note: Positive Organic Results are indicated by BOLD.**

| | Result Codes | Result | Rept Level | Units | Analysis Date |
|---|---|---|---|---|---|
| 468 VOCs in Water by GC/MS -EPA 524.2 | | | | | |
| Naphthalene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| n-Propylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Styrene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Tetrachloroethene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Tetrahydrofuran (THF) | < | 10 | 10 | ug/L | 15-MAY-09 20:19 |
| Toluene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,2,3-Trichlorobenzene | < | 1.0 | 1.0 | ug/L | 15-MAY-09 20:19 |
| 1,2,4-Trichlorobenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,1,1-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,1,2-Trichloroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| Trichloroethene (TCE) | < | 0.1 | 0.1 | ug/L | 15-MAY-09 20:19 |
| Trichlorofluoromethane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,2,3-Trichloropropane | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| 1,2,4-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| 1,3,5-Trimethylbenzene | < | 0.5 | 0.5 | ug/L | 15-MAY-09 20:19 |
| Vinyl chloride | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| o-Xylene | < | 0.2 | 0.2 | ug/L | 15-MAY-09 20:19 |
| p&m-Xylene | < | 0.3 | 0.3 | ug/L | 15-MAY-09 20:19 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **13 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

**Result Code Description**

J The analyte was positively identified. The result is below the report level and is estimated.

QL RPD between LCS/LCSD for this analyte did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

QO Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. Since the recovery showed a positive bias and the analyte was not detected in the sample, the sample result for this analyte was accepted without qualification.

QR Response for this analyte in a continuing calibration verification standard did not meet the QC acceptance criteria. The sample result for this analyte should be considered as estimated.

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **14 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

**All samples analyzed in the batch**

200911587, 200911588, 200911589, 200911590, 200911591, 200911592, 200911593, 200911594, 200911595, 200911596, 200911598

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200911595 | 07-MAY-09 | 16-MAY-09 | 9 | 14 DAYS | Y |
| 200911596 | 07-MAY-09 | 16-MAY-09 | 9 | 14 DAYS | Y |
| 200911598 | 07-MAY-09 | 15-MAY-09 | 8 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

**Samples: 200911595 - 200911598**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **15 of 27**
Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 104 | 70-130 |
| Dibromofluoromethane (surrogate) | | 96 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 96 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 93 | 70-130 |
| Toluene-D8 (surrogate) | | 118 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **16 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **17 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 103 | 100 | 70-130 |
| Dibromofluoromethane (surrogate) | | 98 | 98 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 89 | 87 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 92 | 92 | 70-130 |
| Toluene-D8 (surrogate) | | 119 | 120 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 95 | 108 | 13 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 116 | 108 | 7 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **18 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Benzene | 5 | ug/L | 105 | 105 | 0 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 99 | 96 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 106 | 102 | 4 | 70-130 | 30 |
| Bromodichloromethane | 5 | ug/L | 124 | 113 | 9 | 70-130 | 30 |
| **Bromoform** | 5 | ug/L | 113 | 78 | **37*** | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **54*** | **48*** | 12 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 99 | 99 | 0 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 97 | 97 | 1 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 110 | 107 | 2 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 107 | 97 | 10 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 98 | 96 | 2 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 100 | 78 | 24 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 119 | 113 | 6 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 117 | 116 | 1 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 112 | 107 | 4 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 109 | 105 | 3 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 115 | 112 | 3 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 126 | 112 | 12 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 111 | 107 | 4 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 118 | 120 | 2 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 98 | 94 | 4 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 102 | 98 | 3 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 98 | 97 | 1 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 88 | 85 | 3 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 119 | 118 | 1 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 129 | 128 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **19 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 5 | ug/L | 106 | 104 | 3 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 112 | 108 | 4 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 106 | 103 | 3 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 120 | 116 | 3 | 70-130 | 30 |
| 1,2-Dichloropropane | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 112 | 110 | 1 | 70-130 | 30 |
| **2,2-Dichloropropane** | 5 | ug/L | **139*** | 111 | 23 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 121 | 117 | 3 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 103 | 94 | 10 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 106 | 96 | 10 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 114 | 112 | 1 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 112 | 111 | 0 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 93 | 93 | 0 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 101 | 98 | 3 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 96 | 96 | 0 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 94 | 93 | 1 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 111 | 111 | 0 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 120 | 115 | 4 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 125 | 123 | 2 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 95 | 95 | 0 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 116 | 113 | 2 | 70-130 | 30 |
| Styrene | 5 | ug/L | 98 | 97 | 1 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 108 | 100 | 8 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 112 | 110 | 1 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 105 | 101 | 4 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 116 | 118 | 2 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **20 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.11 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Toluene | 5 | ug/L | 99 | 99 | 1 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 97 | 96 | 1 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 99 | 96 | 3 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 128 | 119 | 7 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 109 | 106 | 3 | 70-130 | 30 |
| Trichloroethene (TCE) | 5 | ug/L | 113 | 110 | 2 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 115 | 114 | 1 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 112 | 111 | 1 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 106 | 104 | 2 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 110 | 109 | 1 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 108 | 106 | 2 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 110 | 102 | 7 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 98 | 98 | 0 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 106 | 105 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **21 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

**All samples analyzed in the batch**

200911597, 200911599, 200911600

**VOCs in Water by GC/MS**
**EPA 524.2**

| Sample | Collection Date | Analysis Date | Analysis Time | Holding Time | Acceptable |
|---|---|---|---|---|---|
| 200911597 | 07-MAY-09 | 16-MAY-09 | 9 | 14 DAYS | Y |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **22 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result Code | Surrogate % Recovery | Accept Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 105 | 70-130 |
| Dibromofluoromethane (surrogate) | | 96 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogate) | | 97 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate) | | 91 | 70-130 |
| Toluene-D8 (surrogate) | | 117 | 70-130 |

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Acetone | < | 20 | ug/L | 20 |
| Allyl chloride | < | 0.5 | ug/L | 0.5 |
| Benzene | < | 0.2 | ug/L | 0.2 |
| Bromobenzene | < | 0.2 | ug/L | 0.2 |
| Bromochloromethane | < | 0.5 | ug/L | 0.5 |
| Bromodichloromethane | < | 0.2 | ug/L | 0.2 |
| Bromoform | < | 0.5 | ug/L | 0.5 |
| Bromomethane | < | 1.0 | ug/L | 1.0 |
| n-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| sec-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| tert-Butylbenzene | < | 0.5 | ug/L | 0.5 |
| Carbon tetrachloride | < | 0.2 | ug/L | 0.2 |
| Chlorobenzene | < | 0.2 | ug/L | 0.2 |
| Chlorodibromomethane | < | 0.5 | ug/L | 0.5 |
| Chloroethane | < | 0.5 | ug/L | 0.5 |
| Chloroform | < | 0.1 | ug/L | 0.1 |
| Chloromethane | < | 1.0 | ug/L | 1.0 |
| 2-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 4-Chlorotoluene | < | 0.5 | ug/L | 0.5 |
| 1,2-Dibromo-3-chloropropane (DBCP) | < | 2.0 | ug/L | 2.0 |
| 1,2-Dibromoethane (EDB) | < | 0.5 | ug/L | 0.5 |
| Dibromomethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

**Samples: 200911595 - 200911598**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **23 of 27**
Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| 1,3-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| 1,4-Dichlorobenzene | < | 0.2 | ug/L | 0.2 |
| Dichlorodifluoromethane | < | 1.0 | ug/L | 1.0 |
| 1,1-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,2-Dichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1-Dichloroethene | < | 0.5 | ug/L | 0.5 |
| cis-1,2-Dichloroethene | < | 0.2 | ug/L | 0.2 |
| trans-1,2-Dichloroethene | < | 0.1 | ug/L | 0.1 |
| Dichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 1,3-Dichloropropane | < | 0.2 | ug/L | 0.2 |
| 2,2-Dichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| cis-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| trans-1,3-Dichloropropene | < | 0.2 | ug/L | 0.2 |
| Ethylbenzene | < | 0.5 | ug/L | 0.5 |
| Ethyl ether | < | 2.0 | ug/L | 2.0 |
| Hexachlorobutadiene | < | 1.0 | ug/L | 1.0 |
| Isopropylbenzene | < | 0.5 | ug/L | 0.5 |
| p-Isopropyltoluene | < | 0.5 | ug/L | 0.5 |
| Methylene chloride | < | 0.5 | ug/L | 0.5 |
| Methyl ethyl ketone (MEK) | < | 10 | ug/L | 10 |
| Methyl isobutyl ketone (MIBK) | < | 5.0 | ug/L | 5.0 |
| Methyl tertiary butyl ether (MTBE) | < | 2.0 | ug/L | 2.0 |
| Naphthalene | < | 1.0 | ug/L | 1.0 |
| n-Propylbenzene | < | 0.5 | ug/L | 0.5 |
| Styrene | < | 0.5 | ug/L | 0.5 |
| 1,1,1,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2,2-Tetrachloroethane | < | 0.2 | ug/L | 0.2 |
| Tetrachloroethene | < | 0.2 | ug/L | 0.2 |
| Tetrahydrofuran (THF) | < | 10 | ug/L | 10 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **24 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| **04660024** | **ST. LOUIS PARK VOC SOURCE INVESTIGATION** | **-** |

## Quality Control Batch ID: 20090515.12 AN: 468

### Method Blank

| | Result | Report Level | Units | Control Limit |
|---|---|---|---|---|
| Toluene | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichlorobenzene | < | 1.0 | ug/L | 1.0 |
| 1,2,4-Trichlorobenzene | < | 0.5 | ug/L | 0.5 |
| 1,1,1-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| 1,1,2-Trichloroethane | < | 0.2 | ug/L | 0.2 |
| Trichloroethene (TCE) | < | 0.1 | ug/L | 0.1 |
| Trichlorofluoromethane | < | 0.5 | ug/L | 0.5 |
| 1,2,3-Trichloropropane | < | 0.5 | ug/L | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | < | 0.2 | ug/L | 0.2 |
| 1,2,4-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| 1,3,5-Trimethylbenzene | < | 0.5 | ug/L | 0.5 |
| Vinyl chloride | < | 0.2 | ug/L | 0.2 |
| o-Xylene | < | 0.2 | ug/L | 0.2 |
| p&m-Xylene | < | 0.3 | ug/L | 0.3 |

### Laboratory Control Samples

| | Result Code | LCS %Recovery | LCSD %Recovery | Accept. Limits |
|---|---|---|---|---|
| 4-Bromofluorobenzene (surrogate) | | 100 | 101 | 70-130 |
| Dibromofluoromethane (surrogate) | | 98 | 97 | 70-130 |
| 1,2-Dichlorobenzene-D4 (surrogat | | 87 | 89 | 70-130 |
| 1,2-Dichloroethane-D4 (surrogate | | 92 | 91 | 70-130 |
| Toluene-D8 (surrogate) | | 120 | 121 | 70-130 |

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Acetone | 5 | ug/L | 108 | 112 | 4 | 70-130 | 30 |
| Allyl chloride | 5 | ug/L | 108 | 112 | 3 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **25 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Benzene | 5 | ug/L | 105 | 112 | 6 | 70-130 | 30 |
| Bromobenzene | 5 | ug/L | 96 | 99 | 3 | 70-130 | 30 |
| Bromochloromethane | 5 | ug/L | 102 | 107 | 5 | 70-130 | 30 |
| Bromodichloromethane | 5 | ug/L | 113 | 123 | 9 | 70-130 | 30 |
| Bromoform | 5 | ug/L | 78 | 96 | 22 | 70-130 | 30 |
| **Bromomethane** | 5 | ug/L | **48*** | **56*** | 17 | 70-130 | 30 |
| n-Butylbenzene | 5 | ug/L | 99 | 103 | 4 | 70-130 | 30 |
| sec-Butylbenzene | 5 | ug/L | 97 | 102 | 6 | 70-130 | 30 |
| tert-Butylbenzene | 5 | ug/L | 107 | 112 | 4 | 70-130 | 30 |
| Carbon tetrachloride | 5 | ug/L | 97 | 108 | 10 | 70-130 | 30 |
| Chlorobenzene | 5 | ug/L | 96 | 102 | 5 | 70-130 | 30 |
| Chlorodibromomethane | 5 | ug/L | 78 | 91 | 15 | 70-130 | 30 |
| Chloroethane | 5 | ug/L | 113 | 124 | 10 | 70-130 | 30 |
| Chloroform | 5 | ug/L | 116 | 123 | 6 | 70-130 | 30 |
| Chloromethane | 5 | ug/L | 107 | 116 | 8 | 70-130 | 30 |
| 2-Chlorotoluene | 5 | ug/L | 105 | 111 | 6 | 70-130 | 30 |
| 4-Chlorotoluene | 5 | ug/L | 112 | 117 | 5 | 70-130 | 30 |
| 1,2-Dibromo-3-chloropropane (D | 5 | ug/L | 112 | 114 | 2 | 70-130 | 30 |
| 1,2-Dibromoethane (EDB) | 5 | ug/L | 107 | 110 | 3 | 70-130 | 30 |
| Dibromomethane | 5 | ug/L | 120 | 119 | 1 | 70-130 | 30 |
| 1,2-Dichlorobenzene | 5 | ug/L | 94 | 98 | 4 | 70-130 | 30 |
| 1,3-Dichlorobenzene | 5 | ug/L | 98 | 102 | 3 | 70-130 | 30 |
| 1,4-Dichlorobenzene | 5 | ug/L | 97 | 99 | 2 | 70-130 | 30 |
| Dichlorodifluoromethane | 5 | ug/L | 85 | 94 | 10 | 70-130 | 30 |
| 1,1-Dichloroethane | 5 | ug/L | 118 | 125 | 6 | 70-130 | 30 |
| 1,2-Dichloroethane | 5 | ug/L | 128 | 129 | 1 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **26 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 5 | ug/L | 104 | 111 | 7 | 70-130 | 30 |
| cis-1,2-Dichloroethene | 5 | ug/L | 108 | 120 | 11 | 70-130 | 30 |
| trans-1,2-Dichloroethene | 5 | ug/L | 103 | 112 | 8 | 70-130 | 30 |
| Dichlorofluoromethane | 5 | ug/L | 116 | 127 | 9 | 70-130 | 30 |
| 1,2-Dichloropropane | 5 | ug/L | 118 | 123 | 4 | 70-130 | 30 |
| 1,3-Dichloropropane | 5 | ug/L | 110 | 115 | 5 | 70-130 | 30 |
| 2,2-Dichloropropane | 5 | ug/L | 111 | 103 | 7 | 70-130 | 30 |
| 1,1-Dichloropropene | 5 | ug/L | 117 | 125 | 6 | 70-130 | 30 |
| cis-1,3-Dichloropropene | 5 | ug/L | 94 | 95 | 1 | 70-130 | 30 |
| trans-1,3-Dichloropropene | 5 | ug/L | 96 | 97 | 1 | 70-130 | 30 |
| Ethylbenzene | 5 | ug/L | 112 | 119 | 6 | 70-130 | 30 |
| Ethyl ether | 5 | ug/L | 111 | 114 | 3 | 70-130 | 30 |
| Hexachlorobutadiene | 5 | ug/L | 93 | 95 | 2 | 70-130 | 30 |
| Isopropylbenzene | 5 | ug/L | 98 | 104 | 6 | 70-130 | 30 |
| p-Isopropyltoluene | 5 | ug/L | 96 | 100 | 4 | 70-130 | 30 |
| Methylene chloride | 5 | ug/L | 93 | 99 | 7 | 70-130 | 30 |
| Methyl ethyl ketone (MEK) | 5 | ug/L | 111 | 108 | 2 | 70-130 | 30 |
| Methyl isobutyl ketone (MIBK) | 5 | ug/L | 115 | 116 | 1 | 70-130 | 30 |
| Methyl tertiary butyl ether (M | 5 | ug/L | 123 | 124 | 1 | 70-130 | 30 |
| Naphthalene | 5 | ug/L | 95 | 91 | 4 | 70-130 | 30 |
| n-Propylbenzene | 5 | ug/L | 113 | 120 | 5 | 70-130 | 30 |
| Styrene | 5 | ug/L | 97 | 102 | 5 | 70-130 | 30 |
| 1,1,1,2-Tetrachloroethane | 5 | ug/L | 100 | 106 | 6 | 70-130 | 30 |
| 1,1,2,2-Tetrachloroethane | 5 | ug/L | 110 | 111 | 1 | 70-130 | 30 |
| Tetrachloroethene | 5 | ug/L | 101 | 108 | 6 | 70-130 | 30 |
| Tetrahydrofuran (THF) | 5 | ug/L | 118 | 118 | 0 | 70-130 | 30 |

# Minnesota Department Of Health - Environmental Laboratory

**Final Report - Client Copy** - Report Of Analytical Results

Program: **PL**
Program Name: **MPCA-32 METRO MERLA-SF**
Request No: **348715**

Date Received: **08-MAY-2009**
Date Generated: **20-MAY-2009**
Request Page: **27 of 27**

**Samples: 200911595 - 200911598**

Date Reported: **20-MAY-2009**

| Site ID | Project Name | Sampled By |
|---|---|---|
| 04660024 | ST. LOUIS PARK VOC SOURCE INVESTIGATION | - |

## Quality Control Batch ID: 20090515.12 AN: 468

### Laboratory Control Samples

| | Spike Level | Units | Spike %Rec | Dup %Rec | RPD | %Rec Req | RPD Req |
|---|---|---|---|---|---|---|---|
| Toluene | 5 | ug/L | 99 | 104 | 5 | 70-130 | 30 |
| 1,2,3-Trichlorobenzene | 5 | ug/L | 96 | 98 | 2 | 70-130 | 30 |
| 1,2,4-Trichlorobenzene | 5 | ug/L | 96 | 97 | 2 | 70-130 | 30 |
| 1,1,1-Trichloroethane | 5 | ug/L | 119 | 128 | 8 | 70-130 | 30 |
| 1,1,2-Trichloroethane | 5 | ug/L | 106 | 112 | 5 | 70-130 | 30 |
| Trichloroethene (TCE) | 5 | ug/L | 110 | 117 | 6 | 70-130 | 30 |
| Trichlorofluoromethane | 5 | ug/L | 114 | 123 | 8 | 70-130 | 30 |
| 1,2,3-Trichloropropane | 5 | ug/L | 111 | 109 | 2 | 70-130 | 30 |
| 1,1,2-Trichlorotrifluoroethane | 5 | ug/L | 104 | 109 | 5 | 70-130 | 30 |
| 1,2,4-Trimethylbenzene | 5 | ug/L | 109 | 112 | 3 | 70-130 | 30 |
| 1,3,5-Trimethylbenzene | 5 | ug/L | 106 | 112 | 5 | 70-130 | 30 |
| Vinyl chloride | 5 | ug/L | 102 | 115 | 12 | 70-130 | 30 |
| o-Xylene | 5 | ug/L | 98 | 102 | 4 | 70-130 | 30 |
| p&m-Xylene | 5 | ug/L | 105 | 111 | 5 | 70-130 | 30 |

200911595 Yum

200911598 Invoice Code (PL)

* MPCA *

STS | AECOM

# in of Custody Record

№ 4208

RF003948

Person Dave Moore / MPCA (PL)
No. (651) 757-2583 Office St. Paul
No. 04660024 PO No.
Name St. Louis Park VOC Source Investigation

**Special Handling Request**
- ☐ Rush
- ☐ Verbal
- ☐ Other

Record Number 4208 Through 4208
Laboratory MDH
Contact Person
Phone No.
Results Due Standard

| Sample I.D. | Date | Time | Grab | Composite | No. of Containers | Sample Type (Water, soil, air, sludge, etc.) | Preservation Y | Preservation N | Field Data PID/FID Ambient | Field Data PID/FID Sample | Field Data PH | Field Data Special Cond. | Analysis Request | Comments on Sample (Include Major Contaminants) 5°C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6504 Walker #1(W) | 5/7 | 0940 | X | | 3 | Water | 3 | — | | | | | Low Level VOC | 200911595 |
| B6504 Walker #2(W) | 5/7 | 1311 | X | | 3 | Water | 3 | — | | | | | Low Level VOC | 596 |
| B6824 Lake #1(W) | 5/7 | 1639 | X | | 3 | Water | 3 | — | | | | | Low Level VOC | 597 |
| Trip Blank | — | — | | | 1 | Water | + | — | | | | | Low level VOC | 598 |

| | | | | | |
|---|---|---|---|---|---|
| Collected by: | Date | Time | Delivery by: AECOM | Date 5/8/09 | Time |
| Received by: [signature] MPH | Date 5-8-09 | Time 1320 | Relinquished by: [signature] | Date 5/8/09 | Time 1320 |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received by: | Date | Time | Relinquished by: | Date | Time |
| Received for lab by: | Date | Time | Relinquished by: | Date | Time |

**Laboratory Comments Only:** Seals Intact Upon Receipt? ☐ Yes ☐ No ☐ N/A

| Final Disposition: | Comments (Weather Conditions, Precautions, Hazards): |
|---|---|
| | |
| | |

Distribution: Original and Canary - Laboratory Pink - STS Project File Instructions to Laboratory: Forward completed original to STS with analytical results.

# Appendix C

Boring Logs

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6714 WALKER #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Tall Sales Co, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) | UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$ (1 2 3 4 5) | PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) | STANDARD PENETRATION BLOWS/FT. (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | | | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 | | | |
| | | 1 | MC | | | | | <1 | | | |
| 5.0 | | 2 | MC | | | | | <1 | | | |
| | | 2 | MC | | | | | <1 | | | |
| 10.0 | | 3 | MC | | | | | <1 | | | |
| | | 3 | MC | | | | | <1 | | | |
| 15.0 | | 4 | MC | | | | | <1 | | | |
| | | 4 | MC | | | | | <1 | | | |
| 20.0 | | 5 | MC | | | | | <1 | | | |
| | | 5 | MC | | | | | <1 | | | |
| 25.0 | | 6 | MC | | | | | <1 | | | |
| | | 6 | MC | | | | | <1 | | | |
| 28 | | | | | | 28.0 | | | | | |

End of boring at 28 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 48.1'. Water came up to 41.4' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 41.4 | BORING STARTED 3/2/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/2/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6714 WALKER #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Tall Sales Co, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Brown, fine to medium SAND (SP) with trace gravel | | <1 |
| | | 1 | MC | | | | | <1 |
| | | | | | | 4.0 Brown, fine to coarse SAND (SP) | | |
| 5.0 | | 2 | MC | | | | | <1 |
| | | 2 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| | | | | | | 14.0 Brown, fine to coarse SAND (SP) with gravel | | |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 20.0 | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 24.5 | | | | | | 24.5 End of boring at 24.5 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 3/2/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/2/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER **MPCA** | LOG OF BORING NUMBER **B-6714 WALKER #3** |
|---|---|---|
| | PROJECT NAME **St. Louis Park Investigation** | ARCHITECT-ENGINEER **AECOM** |

SITE LOCATION **Tall Sales Co, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 1.0 Brown/black, fine to medium SAND (SP) with trace organics | | |
| | | 1 | AS | | | Brown silty CLAY (CL) | | <1 |
| | | 1 | AS | | | | | <1 |
| 5.0 | | | | | | 5.0 Brown, fine to coarse SAND (SP) with trace gravel | | |
| | | 2 | MC | | | | | <1 |
| | | 2 | MC | | | | | <1 |
| 10.0 | | | | | | | | |
| | | 3 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 15.0 | | | | | | | | |
| | | 4 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | DS | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 25.0 | | | | | | 25.0 End of boring at 25 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 3/2/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/2/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6512 WALKER #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Eclipse Electric, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | 2.0 | | | | | Black/brown silty CLAY (CL) with trace fine sand | | |
| | | 1 | MC | | | | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| | 7.0 | 2 | MC | | | Brown, fine to coarse SAND (SP), slightly moist | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | 10.0 | | | | | Brown, fine to coarse SAND (SP) with trace gravel | | |
| | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| | 19.0 | 5 | MC | | | Light brown, fine to medium SAND (SP) | | <1 |
| 20.0 | | 6 | MC | | | | | <1 |
| | 22.0 | 6 | MC | | | Dark brown, fine to medium SAND (SP) | | <1 |
| | | 7 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | | | <1 |
| | | 8 | MC | | | | | <1 |
| 30.0 | | 8 | MC | | | | | <1 |
| 32 | | 9 | MC | | | | | |
| | 32.0 | | | | | End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | |
| | | | | | | Drove discreet water sampler to 47.7'. Water came up to 43.7' where it was sampled for low-level VOC's. | | |
| | | | | | | Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 43.7 | BORING STARTED 3/4/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/4/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Probe/Dan | APP'D BY | 04660024 |

| AECOM | OWNER **MPCA** | LOG OF BORING NUMBER **B-6512 WALKER #2** |
|---|---|---|
| | PROJECT NAME **St. Louis Park Investigation** | ARCHITECT-ENGINEER **AECOM** |

SITE LOCATION
**Eclipse Electric, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | AS | | | Brown/black, fine to coarse silty SAND (SP) with trace gravel | | 20 |
| | | 1 | AS | | | 4.0 | | 90 |
| 5.0 | | 2 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | 10 |
| | | 2 | MC | | | | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| | | 3 | MC | | | 14.0 | | <1 |
| 15.0 | | 4 | MC | | | Brown, fine to medium SAND (SP) with trace gravel | | <1 |
| | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | 24.0 | | <1 |
| 25.0 | | 6 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 7 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 30.0 | | 8 | MC | | | | | <1 |
| | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 34 | | | | | | 34.0 | | |
| | | | | | | End of boring at 34 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.<br><br>Drove discreet water sampler to 51.0'. Water came up to 42.2' where it was sampled for low-level VOC's.<br><br>Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$ (1, 2, 3, 4, 5)
PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)
STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 42.2 | BORING STARTED 3/3/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/3/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6512 WALKER #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Eclipse Electric, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Brown/black silty SAND (SM) with trace gravel | | <1 |
| | 2.5 | | | | | | | |
| | | 1 | MC | | | Brown, very fine silty SAND (SM) | | <1 |
| 5.0 | 5.5 | | | | | | | |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 2 | MC | | | | | <1 |
| 10.0 | | | | | | | | |
| | | 3 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 15.0 | | | | | | | | |
| | | 4 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 20.0 | | | | | | | | |
| | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 25.0 | | | | | | | | |
| 27 | | 6 | MC | | | | | <1 |
| | 27.0 | | | | | | | |

End of boring at 27 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 47.0'. Water came up to 39.1' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 39.1 | BORING STARTED 3/3/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/3/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER **MPCA** | LOG OF BORING NUMBER **B-3340 GORHAM #1** |
|---|---|---|
| | PROJECT NAME **St. Louis Park Investigation** | ARCHITECT-ENGINEER **AECOM** |

SITE LOCATION
**MinValco Inc, St. Louis Park, MN**

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$ 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL / SURFACE ELEVATION | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Brown/black fine silty SAND (SP) with trace gravel | | <1 |
| | | | | | | 3.0 | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 5.0 | | | | | | | | |
| | | 2 | MC | | | | | <1 |
| | | 2 | MC | | | | | <1 |
| 10.0 | | | | | | | | |
| | | 3 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 15.0 | | | | | | | | |
| | | 4 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 20.0 | | | | | | | | |
| | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 25.0 | | | | | | | | |
| | | 6 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 29.5 | | | | | | 29.5 | | |

End of boring at 29.5 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 45'. Water came up to 35.7' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL **35.7** | BORING STARTED **3/4/09** | **Minneapolis Area - 06** | |
| WL | BORING COMPLETED **3/4/09** | ENTERED BY **RD** | SHEET NO. **1** OF **1** |
| WL | RIG/FOREMAN **Tracked Geoprobe/Dan** | APP'D BY | **04660024** |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-3340 GORHAM #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: MinValco Inc, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Dark brown, fine to coarse SAND (SP) with trace silt | | <1 |
| | | 1 | MC | | | 3.0 | | |
| | | | | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| | | 2 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | | | | | 10.0 | | |
| | | | | | | Brown, fine to medium SAND (SP) | | |
| | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| | | | | | | 14.0 | | |
| | | | | | | Brown, fine to coarse SAND (SP) | | |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 20.0 | | | | | | | | |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 25.0 | | 8 | MC | | | | | <1 |
| 26 | | 9 | MC | | | | | <1 |
| | | | | | | 26.0 | | |
| | | | | | | End of boring at 26 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | |
| | | | | | | Drove discreet water sampler to 46.5'. Water came up to 39.2' where it was sampled for low-level VOC's. | | |
| | | | | | | Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 39.2 | BORING STARTED 3/5/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/5/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Probe/Dan | APP'D BY | 04660024 |

| AECOM | OWNER **MPCA** | LOG OF BORING NUMBER **B-3340 GORHAM #3** |
|---|---|---|
| | PROJECT NAME **St. Louis Park Investigation** | ARCHITECT-ENGINEER **AECOM** |

SITE LOCATION **MinValco Inc, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Black/brown fine to medium SAND (SP) | | <1 |
| | 2.0 | | | | | Brown, fine to coarse SAND (SP) with gravel | | |
| | | 1 | MC | | | | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| | | 2 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | | | | | | | |
| | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 20.0 | | | | | | | | |
| 21 | 21.0 | 6 | MC | | | | | <1 |

End of boring at 21 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 3/5/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/5/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Probe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-3326 GORHAM #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Lighting Plastics, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL / SURFACE ELEVATION | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | <1 |
| 2.5 | | 1 | MC | | | | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| 7.5 | | 2 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | | | | | 10.0 Brown, fine to medium SAND (SP) | | |
| | | 3 | MC | | | | | <1 |
| 12.5 | | 4 | MC | | | 13.0 Brown, fine to coarse SAND (SP) with gravel | | <1 |
| | | 5 | MC | | | | | <1 |
| 15.0 | | 6 | MC | | | | | <1 |
| 16 | | | | | | 16.0 End of boring at 16 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 3/6/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/6/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Probe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-3326 GORHAM #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Lighting Plastics, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 1 | MC | | | | | <1 |
| 5.0 | | 2 | MC | | | 6.0 | | <1 |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel and cobbles | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 19 | | 5 | MC | | | 19.0 | | <1 |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

End of boring at 19 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 47.1'. Water came up to 38.9' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 38.9 | BORING STARTED 3/6/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/6/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Probe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-3326 GORHAM #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: **Lighting Plastics, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel and cobbles | | <1 |
| 2.5 | | 1 | MC | | | | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| 7.5 | | 2 | MC | | | | | <1 |
| | | 3 | MC | | | | | <1 |
| 10.0 | | | | | | End of boring at 10 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.<br><br>Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 3/6/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/6/09 | ENTERED BY RD | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Truck-mounted Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7008 WALKER #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: The Family Digest, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Black/brown clayey SILT (3.0) | | <1 |
| 5.0 | | 2 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel and silt (5.0) | | <1 |
| | | 3 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 10.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 15.0 | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | (17.5) | | <1 |
| 20.0 | | 8 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| | | 9 | MC | | | | | <1 |
| 25.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | (27.0) Brown, wet fine to coarse SAND (SP) with trace gravel | | <1 |
| 30.0 | | 13 | MC | | | | | <1 |
| 32 | | 14 | MC | | | (32.0) | | <1 |

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 32.0'. Water came up to 26.25' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL 26.25 | BORING STARTED 3/30/09 | Minneapolis Area - 06 | |
|---|---|---|---|
| WL | BORING COMPLETED 3/30/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7008 WALKER #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: The Family Digest, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.4 Topsoil<br>Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 2 | MC | | | | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 10.0 | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| | | 10 | MC | | | | | <1 |
| 20.0 | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | | | <1 |
| 25.0 | | 13 | MC | | | | | <1 |
| | | 14 | MC | | | | | <1 |
| | | 15 | MC | | | 29.0 | | <1 |
| 30.0 | | 16 | MC | | | Brown, wet fine to coarse SAND (SP) with trace gravel | | <1 |
| 32 | | | | | | 32.0 | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 32.0'. Water came up to 26.45' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | |
|---|---|---|---|
| 26.45 | 3/30/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/30/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7008 WALKER #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: The Family Digest, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.4 Topsoil<br>Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 2 | MC | | | | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 10.0 | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| | | 10 | MC | | | | | <1 |
| 20.0 | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | | | <1 |
| 25.0 | | 13 | MC | | | | | <1 |
| | | 14 | MC | | | | | <1 |
| | | 15 | MC | | | | | <1 |
| 30.0 | | 16 | MC | | | | | <1 |
| 32 | | | | | | 32.0 | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 32.94'. Water came up to 27.2' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 27.21 | BORING STARTED 3/30/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/30/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7020 WALKER #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Pampered Pooch, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | Brown sandy SILT (ML) with trace clay (2.0) | | <1 |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 10.0 | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| | | 10 | MC | | | | | <1 |
| 20.0 | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | (24.0) | | <1 |
| 25.0 | | 13 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| | | 14 | MC | | | | | <1 |
| | | 15 | MC | | | | | <1 |
| 30.0 | | 16 | MC | | | | | <1 |
| 32 | | | | | | (32.0) | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 32.4'. Water came up to 27.8' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | |
|---|---|---|---|
| 27.8 | 3/31/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/31/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7020 WALKER #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Pampered Pooch, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | Brown, silty SAND (SM) 2.0 | | <1 |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 10.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 20.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | 24.0 | | <1 |
| 25.0 | | 13 | MC | | | Brown, wet fine to coarse SAND (SP) | | <1 |
| 28 | | 14 | MC | | | 28.0 | | <1 |

End of boring at 28 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 28.78'. Water came up to 23.61' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | |
|---|---|---|---|
| 23.61 | 3/31/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 3/31/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-7020 WALKER #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Pampered Pooch, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.5 Topsoil; 1.5 Black, silty CLAY (CL-ML) | | <1 |
| | | 2 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 10.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 20.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | | | <1 |
| 25.0 | | 13 | MC | | | | | <1 |
| | | 14 | MC | | | 27.5 | | <1 |
| 30.0 | | 15 | MC | | | Brown, wet fine to coarse SAND (SP) with trace gravel | | <1 |
| 32 | | 16 | MC | | | 32.0 | | <1 |

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 32.2'. Water came up to 27.2' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 27.2 | BORING STARTED 4/1/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 4/1/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylen | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6225 37TH #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Kaufenberg, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 1.0 TOPSOIL | | <1 |
| | | 2 | MC | | | Brown, silty SAND (SM) 3.5 | | <1 |
| 5.0 | | 3 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 4 | MC | | | 8.0 | | <1 |
| 10.0 | | 5 | MC | | | Brown, fine to medium SAND (SP) 10.0 | | <1 |
| | | 6 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 20.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | | | <1 |
| 25.0 | | 13 | MC | | | | | <1 |
| | | 14 | MC | | | 28.0 | | <1 |
| 30.0 | | 15 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| | | 16 | MC | | | 32.0 | | <1 |
| | | 17 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | <1 |
| 35.0 | | 18 | MC | | | | | <1 |
| | | 19 | MC | | | | | <1 |
| 40.0 | | 20 | MC | | | | | <1 |
| | | 21 | MC | | | | | <1 |
| | | 22 | MC | | | | | <1 |
| 45.0 | | 23 | MC | | | | | <1 |
| | | 24 | MC | | | 47.0 | | <1 |
| | | 25 | MC | | | Brown, fine SAND (SP) | | <1 |
| 50.0 | | | | | | 50.0 | | <1 |

End of boring at 50 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | |
|---|---|---|---|
| ND | 4/1/09 | Minneapolis Area -06 | |
| WL | BORING COMPLETED 4/1/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6225 37TH #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Kaufenberg, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) | UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1 2 3 4 5) / PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) / STANDARD PENETRATION BLOWS/FT. (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | 0.5 Brown, fine to coarse SAND (SP) / Brown clayey silt (ML) 2.5 | | <1 | |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel 4.0 | | <1 | |
| 5.0 | | 3 | MC | | | Brown, fine to coarse SAND (SP) | | <1 | |
| | | 4 | MC | | | | | <1 | |
| 10.0 | | 5 | MC | | | | | <1 | |
| | | 6 | MC | | | | | <1 | |
| | | 7 | MC | | | | | <1 | |
| 15.0 | | 8 | MC | | | | | <1 | |
| | | 9 | MC | | | 18.0 | | <1 | |
| 20.0 | | 10 | MC | | | Brown, fine to medium SAND (SP) | | <1 | |
| | | 11 | MC | | | | | <1 | |
| | | 12 | MC | | | | | <1 | |
| 25.0 | | 13 | MC | | | | | <1 | |
| | | 14 | MC | | | | | <1 | |
| 30.0 | | 15 | MC | | | 30.0 | | <1 | |

End of boring at 30 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | |
|---|---|---|---|
| ND | 4/2/09 | Minneapolis Area -06 | |
| WL | BORING COMPLETED 4/2/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6225 37TH #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Kaufenberg, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL (SURFACE ELEVATION) | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | 1 | MC | | | TOPSOIL | | <1 |
| | | 2 | MC | | | 3.0 / 4.0 Brown, fine to coarse SAND (SP) | | <1 |
| 5.0 | | 3 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 4 | MC | | | | | <1 |
| 10.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | 12.0 | | <1 |
| | | 7 | MC | | | Brown, fine to coarse SAND (SP) with gravel, cobbles | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | 18.5 | | <1 |
| 20.0 | | 10 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | 24.0 | | <1 |
| 25.0 | | 13 | MC | | | Brown, fine to coarse SAND (SP) | | <1 |
| | | 14 | MC | | | | | <1 |
| 30.0 | | 15 | MC | | | 30.0 | | <1 |

End of boring at 30 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL: ND | BORING STARTED: 4/2/09 | Minneapolis Area -06 | |
| WL | BORING COMPLETED: 4/2/09 | ENTERED BY: JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN: Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6225 37TH |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Kaufenberg, St. Louis Park, MN

| DEPTH(FT) / ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL / SURFACE ELEVATION | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) | UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1 2 3 4 5) / PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) / STANDARD PENETRATION BLOWS/FT. (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Blind Drilling | | | |
| 5.0 | | | | | | | | |
| 10.0 | | | | | | | | |
| 15.0 | | | | | | | | |
| 20.0 | | | | | | | | |
| 25.0 | | HSA | | | | | | |
| 30.0 | | | | | | | | |
| 35.0 | | | | | | | | |
| 40.0 | | | | | | | | |
| 45.0 | | | | | | | | |
| 50.0 | | | | | 50.0 | | | |
| | 1 | SS | | | 52.0 Orange/yellow, fine to coarse SAND (SP) | | <1 | 35 |
| | 2 | SS | | | Gray, moist silty CLAY (CL) with trace fine to medium sand | | <1 | 32, 14 |
| 55.0 | | | | | 55.0 | | | |
| | 3 | SS | | | Brown, wet fine to medium SAND (SP) with trace gravel | | <1 | 47 |
| 60.0 | 4 | SS | | | 60.0 | | | |
| 62 | | | | | 62.0 Dark gray, wet fine SAND (SP) with trace clay | | <1 | |
| | | | | | End of boring at 62 feet. Groundwater encountered at 57.4 feet. Drilled to full depth with 4" hollow stem auger. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | | |
| | | | | | Boring sealed with high solids bentonite grout upon completion. | | | |

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 57.4 | BORING STARTED 5/5/09 | Minneapolis Area - 06 | |
| WL 53.0 | BORING COMPLETED 5/5/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Hollow Stem Auger/Randy/Stevens | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6425 OXFORD #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Ace Supply, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) | UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$ (1 2 3 4 5) / PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) / STANDARD PENETRATION BLOWS/FT. (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | | |
| | | | | | | 0.3 Asphalt | | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | <1 | |
| 5.0 | | 2 | MC | | | | | <1 | |
| | | | | | | 8.0 Brown, fine to medium SAND (SP) | | | |
| 10.0 | | 3 | MC | | | | | <1 | |
| 15.0 | | 4 | MC | | | | | <1 | |
| 20.0 | | 5 | MC | | | | | <1 | |
| | | 6 | MC | | | | | <1 | |
| 25.0 | | 7 | MC | | | | | <1 | |
| 30.0 | | 8 | MC | | | | | <1 | |
| | | | | | | 31.5 | | | |
| 32 | | | | | | 32.0 Gray, saturated fine to coarse SAND (SP) | | | |

End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 32 | BORING STARTED 5/4/09 | Minneapolis Area - 06 | |
| WL 27.28 | BORING COMPLETED 5/4/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: 17 | B-6425 OXFORD #2 |
|---|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM | |

SITE LOCATION: Ace Supply, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.4 CONCRETE | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) | | <1 |
| | | 2 | MC | | | 4.0 | | <1 |
| 5.0 | | 3 | MC | | | Brown, fine to coarse SAND (SP) with gravel, cobbles | | <1 |
| | | 4 | MC | | | 6.5 Brown, fine to medium SAND (SP) 8.0 | | <1 |
| 10.0 | | 5 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| 17 | | 9 | MC | | | | | <1 |
| | | | | | | 17.5 | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50

End of boring at 17.5 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| WL | BORING STARTED | | Minneapolis Area -06 |
|---|---|---|---|
| ND | 4/2/09 | | |
| WL | BORING COMPLETED 4/2/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6425 OXFORD #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Ace Supply, St. Louis Park, MN

| DEPTH(FT) / ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|
| | | | | | SURFACE ELEVATION | | |
| | | | | | 0.3 Asphalt | | |
| | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 5.0 | 2 | MC | | | | | <1 |
| 10.0 | 3 | MC | | | 12.0 | | <1 |
| | 4 | MC | | | Brown, fine to medium SAND (SP) | | <1 |
| 15.0 | 5 | MC | | | 20.0 | | <1 |
| 20.0 | 6 | MC | | | Brown, Sandy CLAY (SP) | | <1 |
| 25.0 | 7 | MC | | | 26.0 | | <1 |
| | | | | | Brown, saturated fine SAND (SP) | | |
| 30.0 | 8 | MC | | | | | <1 |
| 32 | | | | | 32.0 | | |
| | | | | | End of boring at 32 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.<br><br>Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 30 | BORING STARTED 5/4/09 | Minneapolis Area - 06 | |
| WL 28.42 | BORING COMPLETED 5/4/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6528 LAKE #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Care Cleaners, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | TOPSOIL 2.0 | | <1 |
| | | 2 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | <1 |
| 5.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | | | <1 |
| 10.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 20.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | 24.0 | | <1 |
| 25.0 | | 13 | MC | | | Brown, fine to medium SAND (SP) 26.0 | | <1 |
| | | 14 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 30.0 | | 15 | MC | | | | | <1 |
| | | 16 | MC | | | | | <1 |
| 35.0 | | | | | | 36.0 | | |
| 40.0 | | | | | | Brown, wet fine to coarse SAND (SP) 44.0 | | |
| | | | | | | End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. Drove discreet water sampler to 42.7'. Water came up to 37.6' where it was sampled for low-level VOC's. Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 37.6 | BORING STARTED 4/3/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 4/3/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6528 LAKE #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Care Cleaners, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | TOPSOIL 2.0 | | <1 |
| | | 2 | MC | | | Brown, silty SAND (SM) with trace coarse sand 4.0 | | <1 |
| 5.0 | | 3 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| | | 4 | MC | | | | | <1 |
| 10.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| | | 7 | MC | | | | | <1 |
| 15.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | | | <1 |
| 20.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | | | <1 |
| | | 12 | MC | | | | | <1 |
| 25.0 | | 13 | MC | | | | | <1 |
| | | 14 | MC | | | | | <1 |
| 30.0 | | 15 | MC | | | | | <1 |
| | | 16 | MC | | | 32.0 | | <1 |
| | | 17 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel 34.0 | | <1 |
| 35.0 | | 18 | MC | | | | | <1 |
| | | 19 | MC | | | Brown, wet fine to coarse SAND (SP) | | <1 |
| 40.0 | | 20 | MC | | | | | <1 |
| | | 21 | MC | | | | | <1 |
| 44 | | 22 | MC | | | 44.0 | | <1 |

End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Drove discreet water sampler to 42.8'. Water came up to 38.4' where it was sampled for low-level VOC's.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 38.4 | BORING STARTED 4/3/09 | Minneapolis Area - 06 | |
| WL | BORING COMPLETED 4/3/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Peter | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6528 LAKE #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Care Cleaners, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) | UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$ (1 2 3 4 5) / PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) / STANDARD PENETRATION BLOWS/FT. (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | | |
| | | | | | | 0.6 Concrete | | | |
| | | 1 | MC | | | Dark brown, fine to coarse SAND (SP) 4.0 | | <1 | |
| 5.0 | | 2 | MC | | | Brown, coarse SAND (SP) | | <1 | |
| 10.0 | | 3 | MC | | | | | <1 | |
| 15.0 | | 4 | MC | | | | | <1 | |
| | | 5 | MC | | | | | <1 | |
| 20.0 | | 6 | MC | | | | | <1 | |
| 25.0 | | 7 | MC | | | | | <1 | |
| 30.0 | | 8 | MC | | | | | <1 | |
| 35.0 | | 9 | MC | | | 36.0 | | <1 | |
| | | 10 | MC | | | Brown, wet sandy CLAY (CL) with trace silt 40.0 | | <1 | |
| 40.0 | | 11 | MC | | | Brown, saturated coarse SAND (SP) 44.0 | | <1 | |
| 44 | | | | | | End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. Boring sealed with high solids bentonite grout upon completion. | | | |

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 40.0 | BORING STARTED 5/5/09 | Minneapolis Area - 06 | |
| WL 37.06 | BORING COMPLETED 5/5/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6500 LAKE #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Techna Graphics, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.3 Asphalt | | |
| | | 1 | MC | | | Light brown, fine to coarse SAND (SP) with gravel | | <1 |
| 5.0 | | | | | | 5.0 | | |
| | | 2 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | | | <1 |
| 30.0 | | 8 | MC | | | | | <1 |
| 35.0 | | 9 | MC | | | | | <1 |
| 40.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | 42.0 | | |
| | | | | | | 43.0 Brown, wet coarse SAND (SP) | | <1 |
| | | | | | | 44.0 Brown, saturated sandy CLAY (CL) | | |
| 45.0 | | 12 | MC | | | End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | <1 |
| 48 | | | | | | Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 44.5 | BORING STARTED 5/5/09 | Minneapolis Area - 06 | |
| WL 38.16 | BORING COMPLETED 5/5/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6500 LAKE #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: **Techna Graphics, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.3 Asphalt<br>Brown, coarse SAND (SP) | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | MC | | | 20.0 | | <1 |
| | | 6 | MC | | | No recovery, rock | | <1 |
| 25.0 | | 7 | MC | | | 28.0 | | <1 |
| 30.0 | | 8 | MC | | | Brown, coarse SAND (SP)<br>32.0 | | <1 |
| 35.0 | | 9 | MC | | | No recovery, rock<br>36.0 | | <1 |
| 36 | | | | | | End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.<br><br>Drove discreet water sampler to 43.0'. Water came up to 38.77' where it was sampled for low-level VOC's.<br><br>Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 5/6/09 | Minneapolis Area - 06 | |
| WL 38.77 | BORING COMPLETED 5/6/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6500 LAKE #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: **Techna Graphics, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.$^3$ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.5 Topsoil | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with gravel | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| | | | | | | 8.0 Brown, coarse SAND (SP) | | |
| 10.0 | | 3 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| | | 5 | MC | | | | | <1 |
| 20.0 | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | | | <1 |
| 30.0 | | 8 | MC | | | | | <1 |
| | | 9 | MC | | | 34.0 Gray, wet CLAY (CL) | | <1 |
| 35.0 | | 10 | MC | | | | | <1 |
| 40.0 | | 11 | MC | | | 43.0 | | <1 |
| 44 | | | | | | 44.0 Brown, saturated coarse SAND (SP) | | |

End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.$^2$: 1 2 3 4 5

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 40.0 | BORING STARTED 5/6/09 | Minneapolis Area - 06 | |
| WL 38.9 | BORING COMPLETED 5/6/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6504 WALKER #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Bryant Graphics, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.3 Asphalt<br>Brown, fine to coarse SAND (SP) with trace gravel<br>3.5 | | <1 |
| 5.0 | | 2 | MC | | | Black, coarse SAND (SP)<br>7.0 | | <1 |
| 10.0 | | 3 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | | | <1 |
| 30.0 | | 8 | MC | | | 30.0<br>Brown, sandy CLAY (SP)<br>33.0 | | <1 |
| 35.0 | | 9 | MC | | | Brown, coarse SAND (SP)<br>36.0 | | <1 |
| | | 10 | MC | | | 36.5 ROCK<br>Brown, coarse SAND (SP)<br>40.0 | | <1 |
| 40.0 | | | | | | 40.5 ROCK, refusal | | |
| 40.5 | | 11 | MC | | | End of boring at 40.5 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.<br><br>Drove discreet water sampler to 45.0'. Water came up to 41.41' where it was sampled for low-level VOC's.<br><br>Boring sealed with high solids bentonite grout upon completion. | | <1 |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 5/6/09 | Minneapolis Area - 06 | |
| WL 41.41 | BORING COMPLETED 5/6/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6504 WALKER #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Bryant Graphics, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | 1 | MC | | | 0.3 Asphalt<br>Brown, fine to coarse SAND (SP) with trace gravel<br>4.0 | | <1 |
| 5.0 | | 2 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | | | <1 |
| 20.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | 28.0 | | <1 |
| 30.0 | | 8 | MC | | | 28.5 ROCK<br>Brown, moist coarse SAND (SP) | | <1 |
| 35.0 | | 9 | MC | | | | | <1 |
| 40.0 | | 10 | MC | | | | | <1 |
| 44 | | 11 | MC | | | 44.0 | | <1 |

End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

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Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 5/7/09 | Minneapolis Area - 06 | |
| WL 41.97 | BORING COMPLETED 5/7/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6824 LAKE #1 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: **Prof. Instruments, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.8 Topsoil | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel 3.0 | | <1 |
| 5.0 | | 2 | MC | | | Brown, coarse SAND (SP) 8.0 | | <1 |
| 10.0 | | 3 | MC | | | Light brown, fine SAND (SP) 12.0 | | <1 |
| 15.0 | | 4 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 20.0 | | 5 | MC | | | | | <1 |
| | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | 26.0 27.0 Brown, sandy CLAY (CL) | | <1 |
| 30.0 | | 8 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 35.0 | | 9 | MC | | | | | <1 |
| 40.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | 42.0 Rocks | | <1 |
| 44 | | | | | | 44.0 | | |

End of boring at 44 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04.

Boring sealed with high solids bentonite grout upon completion.

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 5/7/09 | Minneapolis Area - 06 | |
| WL 44.13 | BORING COMPLETED 5/7/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6824 LAKE #2 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: **Prof. Instruments, St. Louis Park, MN**

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.8 Topsoil | | |
| | | 1 | MC | | | Brown, fine to coarse SAND (SP) with trace gravel | | <1 |
| 5.0 | | 2 | MC | | | | | <1 |
| | | | | | | 8.0 Brown, coarse SAND (SP) | | |
| 10.0 | | 3 | MC | | | | | <1 |
| | | 4 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 15.0 | | | | | | | | |
| | | 5 | MC | | | 18.0 | | |
| | | | | | | 18.4 Brown, sandy CLAY (CL) | | <1 |
| 20.0 | | | | | | Brown, coarse SAND (SP) | | |
| | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | 26.0 | | |
| | | | | | | | | <1 |
| 30.0 | | 8 | MC | | | | | <1 |
| 35.0 | | 9 | MC | | | | | <1 |
| | | 10 | MC | | | | | <1 |
| 40.0 | | 11 | MC | | | | | <1 |
| | | | | | | 44.0 | | |
| 45.0 | | 12 | MC | | | Brown, coarse SAND (SP) with rock | | <1 |
| 48 | | | | | | 48.0 | | |
| | | | | | | End of boring at 48 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | |
| | | | | | | Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL 35.7 | BORING STARTED 5/8/09 | Minneapolis Area - 06 | |
| WL 44.74 | BORING COMPLETED 5/8/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

| AECOM | OWNER: MPCA | LOG OF BORING NUMBER: B-6824 LAKE #3 |
|---|---|---|
| | PROJECT NAME: St. Louis Park Investigation | ARCHITECT-ENGINEER: AECOM |

SITE LOCATION: Prof. Instruments, St. Louis Park, MN

| DEPTH(FT) | ELEVATION(FT) | SAMPLE NO. | SAMPLE TYPE | SAMPLE DISTANCE | RECOVERY | DESCRIPTION OF MATERIAL | UNIT DRY WT. LBS./FT.³ | PHOTO-IONIZATION DETECTOR READING (PPM) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | SURFACE ELEVATION | | |
| | | | | | | 0.4 "Class 5" gravel | | |
| | | 1 | MC | | | Dark brown, fine to coarse SAND (SP) with trace gravel (3.5) | | <1 |
| 5.0 | | 2 | MC | | | Brown, coarse SAND (SP) with rock | | <1 |
| 10.0 | | 3 | MC | | | | | <1 |
| 15.0 | | 4 | MC | | | 16.0 | | <1 |
| | | 5 | MC | | | Brown, coarse SAND (SP) | | <1 |
| 20.0 | | 6 | MC | | | | | <1 |
| 25.0 | | 7 | MC | | | 26.0 | | |
| | | | | | | 26.4 Brown sandy CLAY (CL) | | <1 |
| | | | | | | Brown, coarse SAND (SP) | | |
| 30.0 | | 8 | MC | | | | | <1 |
| 35.0 | | 9 | MC | | | | | <1 |
| 40.0 | | 10 | MC | | | | | <1 |
| | | 11 | MC | | | 43.0 | | <1 |
| | | | | | | 44.0 Brown, moist coarse SAND | | |
| 45.0 | | 12 | MC | | | End of boring at 48 feet. Probed to full depth with Macrocore® sampler. Soil samples screened with an 11.7eV photoionization detector (PID) in general accordance with MPCA polyethylene bag headspace screening as outlined in Guidance Document 4-04. | | <1 |
| 48 | | | | | | 48.0 Boring sealed with high solids bentonite grout upon completion. | | |

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/FT. (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| WL | BORING STARTED 5/8/09 | Minneapolis Area - 06 | |
| WL 44.3 | BORING COMPLETED 5/8/09 | ENTERED BY JR | SHEET NO. 1 OF 1 |
| WL | RIG/FOREMAN Tracked Geoprobe/Waylan/Summit | APP'D BY | 04660024 |

# Appendix D

Soil Gas Probe Sampling Summary

AECOM

## Soil Gas Probe Sampling Summary

**AECOM Project Number: 04660024**

**Approximate Depth to Groundwater at site (feet from surface)** **35-45'**

**Date:** **3.2.09 to 5.8.09**

**Vapor Probe Advancement Method (Manual or Probe)** **Probe**

**Inititals:** **RD & JR**

| | | | | | | Quad-Gas Readings (GEM 500) | | | | | | Suma Canister Sample | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AECOM Sample ID** | **Sample Collection Date** | **Sample Collection Time** | **Sample Depth (ft.)** | **Soil Type in Sample Zone** | **PID** | **O2 %** | **CH4 %** | **CO2 %** | **Balance %** | **Purge Start Time** | **Purge End Time** | **Canister Number** | **Initial Vacuum Gauge Reading (in. Hg)** | **Final Vacuum Gauge Reading (in. Hg)** | **Canister Filling Time** |
| VP-6714 Walker #1 (8') | 3/3/09 | 1025 | 8' | Fine to coarse sand with gravel | <1 | 19.1 | 0.0 | 0.1 | 80.8 | 1022 | 1024 | 988 | ---- | ---- | 5 min |
| VP-6714 Walker #2 (8') | 3/2/09 | 1546 | 8' | Fine to coarse sand with gravel | <1 | 20.4 | 0.0 | 0.1 | 79.4 | 1542 | 1544 | 800 | ---- | ---- | 5 min |
| VP-6714 Walker #3 (8') | 3/2/09 | 1417 | 8' | Fine to coarse sand with gravel | <1 | 20.5 | 0.0 | 0.0 | 79.5 | 1414 | 1416 | 1043 | ---- | ---- | 5 min |
| VP-6512 Walker #1 (8') | 3/4/09 | 1417 | 8' | Fine to coarse sand with gravel | <1 | 20.7 | 0.0 | 0.1 | 79.2 | 1415 | 1417 | 35 | ---- | ---- | 5 min |
| VP-6512 Walker #2 (8') | 3/4/09 | 925 | 8' | Fine to coarse sand with gravel | 6 | 18.7 | 0.0 | 0.0 | 81.3 | 923 | 925 | 742 | ---- | ---- | 5 min |
| VP-6512 Walker #3 (8') | 3/4/09 | 850 | 8' | Fine to coarse sand with gravel | <1 | 20.0 | 0.0 | 0.1 | 79.9 | 848 | 850 | 798 | ---- | ---- | 5 min |
| VP-6512 Walker #22 (8') (Duplicate) | 3/4/09 | 930 | 8' | Fine to coarse sand with gravel | 6 | 18.7 | 0.0 | 0.0 | 81.3 | 923 | 925 | 1352 | ---- | ---- | 5 min |

| AECOM Sample ID | Sample Collection Date | Sample Collection Time | Sample Depth (ft.) | Soil Type in Sample Zone | PID | Quad-Gas Readings (GEM 500) | | | | | | Suma Canister Sample | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | O2 % | CH4 % | CO2 % | Balance % | Purge Start Time | Purge End Time | Canister Number | Initial Vacuum Gauge Reading (in. Hg) | Final Vacuum Gauge Reading (in. Hg) | Canister Filling Time |
| VP-3340 Gorham #1 (8') | 3/6/09 | 850 | 8' | Fine to coarse sand with gravel | <1 | 18.5 | 0.0 | 0.2 | 81.3 | 848 | 850 | 1185 | ---- | ---- | 5 min |
| VP-3340 Gorham #2 (8') | 3/5/09 | 1400 | 8' | Fine to coarse sand with gravel | <1 | 20.0 | 0.0 | 0.1 | 79.9 | 1358 | 1400 | 802 | ---- | ---- | 5 min |
| VP-3340 Gorham #3 (8') | 3/6/09 | 928 | 8' | Fine to coarse sand with gravel | <1 | 19.2 | 0.0 | 0.0 | 80.8 | 926 | 928 | 708 | ---- | ---- | 5 min |
| VP-3326 Gorham #1 (8') | 3/6/09 | 1212 | 8' | Fine to coarse sand with gravel | <1 | 20.1 | 0.0 | 0.2 | 79.7 | 1210 | 1212 | 621 | ---- | ---- | 5 min |
| VP-3326 Gorham #2 (8') | 3/6/09 | 1522 | 8' | Fine to coarse sand with gravel | <1 | 20.8 | 0.0 | 0.1 | 79.1 | 1520 | 1522 | 517 | ---- | ---- | 5 min |
| VP-3326 Gorham #3 (8') | 3/6/09 | 1607 | 8' | Fine to coarse sand with gravel | <1 | 20.4 | 0.0 | 0.0 | 79.6 | 1605 | 1607 | 656 | ---- | ---- | 5 min |
| VP-3326 Gorham #33 (8') (Duplicate) | 3/6/09 | 1613 | 8' | Fine to coarse sand with gravel | <1 | 20.4 | 0.0 | 0.0 | 79.6 | 1605 | 1607 | 661 | ---- | ---- | 5 min |
| VP-7008 Walker #1 (8') | 3/30/09 | 1436 | 8' | Fine to coarse sand with gravel | <1 | 19.8 | 0.0 | 0.3 | 79.9 | 1434 | 1436 | 623 | ---- | ---- | 4 min |
| VP-7008 Walker#2 (8') | 3/30/09 | 1309 | 8' | Fine to coarse sand with gravel | <1 | 19.8 | 0.0 | 0.1 | 80.1 | 1307 | 1309 | 200 | 24 | 2 | 3 min |
| VP-7008 Walker #3(8') | 3/30/09 | 1700 | 8' | Fine to coarse sand with gravel | <1 | 20.0 | 0.0 | 0.1 | 79.9 | 1658 | 1700 | 623 | ---- | ---- | 4 min |
| VP-7020 Walker#1 (8') | 3/31/09 | 1253 | 8' | Fine to coarse sand with gravel | <1 | 19.2 | 0.0 | 0.2 | 80.6 | 1251 | 1253 | 649 | ---- | ---- | 4 min |
| VP-7020 Walker#2 (10') | 4/1/09 | 1120 | 8' | Fine to coarse sand with gravel | <1 | 18.5 | 0.0 | 0.6 | 80.9 | 1118 | 1120 | 688 | ---- | ---- | 4 min |

| AECOM Sample ID | Sample Collection Date | Sample Collection Time | Sample Depth (ft.) | Soil Type in Sample Zone | PID | Quad-Gas Readings (GEM 500) | | | | | | Suma Canister Sample | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | O2 % | CH4 % | CO2 % | Balance % | Purge Start Time | Purge End Time | Canister Number | Initial Vacuum Gauge Reading (in. Hg) | Final Vacuum Gauge Reading (in. Hg) | Canister Filling Time |
| VP-7020 Walker#3 (8') | 4/1/09 | 1051 | 8' | Fine to coarse sand with gravel | <1 | 19.7 | 0.0 | 0.1 | 80.2 | 1049 | 1051 | 582 | ---- | ---- | 4 min |

| AECOM Sample ID | Sample Collection Date | Sample Collection Time | Sample Depth (ft.) | Soil Type in Sample Zone | PID | Quad-Gas Readings (GEM 500) | | | | | | Suma Canister Sample | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | O2 % | CH4 % | CO2 % | Balance % | Purge Start Time | Purge End Time | Canister Number | Initial Vacuum Gauge Reading (in. Hg) | Final Vacuum Gauge Reading (in. Hg) | Canister Filling Time |
| VP-6225 37th #1 (8') | 4/1/09 | 1656 | 8' | Fine to coarse sand with gravel | <1 | 19.7 | 0.0 | 0.1 | 80.2 | 1654 | 1656 | 129 | ---- | ---- | 4 min |
| VP-6225 37th #2 (8') | 4/2/09 | 1623 | 8' | Fine to coarse sand with gravel | <1 | 19.7 | 0.0 | 0.1 | 80.2 | 1621 | 1623 | 926 | ---- | ---- | 4 min |
| VP-6225 37th #3 (8') | 4/2/09 | 1649 | 8' | Fine to coarse sand with gravel | <1 | 19.9 | 0.0 | 0.0 | 80.1 | 1647 | 1649 | 786 | ---- | ---- | 4 min |
| VP-6425 Oxford #1(8') | 4/2/09 | 1520 | 8' | Fine to coarse sand with gravel | <1 | 19.9 | 0.0 | 0.0 | 80.1 | 1517 | 1519 | 1267 | ---- | ---- | 4 min |
| VP-6425 Oxford #11 (8') (Dup) | 4/2/09 | 1525 | 8' | Fine to coarse sand with gravel | <1 | 19.9 | 0.0 | 0.0 | 80.1 | 1517 | 1519 | 1192 | ---- | ---- | 4 min |
| VP-6425 Oxford#2 (8') | 4/2/09 | 1433 | 8' | Fine to coarse sand with gravel | <1 | 19.4 | 0.0 | 0.1 | 80.5 | 1441 | 1443 | 1220 | ---- | ---- | 4 min |
| VP-6425 Oxford #3(8') | 4/2/09 | 1603 | 8' | Fine to coarse sand with gravel | <1 | 19.9 | 0.0 | 0.0 | 80.1 | 1601 | 1603 | 471 | ---- | ---- | 4 min |
| VP-6528 Lake #1 (8') | 4/3/09 | 1209 | 8' | Fine to coarse sand with gravel | <1 | 18.6 | 0.0 | 0.5 | 80.9 | 1207 | 1209 | 468 | ---- | ---- | 4 min |
| VP-6528 Lake #2 (8') | 4/3/09 | 1517 | 8' | Fine to coarse sand with gravel | <1 | 19.4 | 0.0 | 0.5 | 80.1 | 1515 | 1517 | 1207 | ---- | ---- | 4 min |
| B6528 Lake#3(8') | 5/5/09 | 1102 | 8' | Fine to coarse sand with gravel | 2 | 19.1 | 0.0 | 0.0 | 80.3 | 1059 | 1102 | 865 | ---- | ---- | 4 mins |
| B6500 Lake#1 (8') | 5/5/09 | 1530 | 8' | Fine to coarse sand with gravel | 2.2 | 19.4 | 0.0 | 0.1 | 80.5 | 1527 | 1530 | 236 | ---- | ---- | 4 mins |
| B6500 Lake#2 (8') | 5/6/09 | 1605 | 8' | Fine to coarse sand with gravel | 1.4 | 19.5 | 0.0 | 0.1 | 80.4 | 1602 | 1605 | 433 | ---- | ---- | 4 mins |

| AECOM Sample ID | Sample Collection Date | Sample Collection Time | Sample Depth (ft.) | Soil Type in Sample Zone | PID | Quad-Gas Readings (GEM 500) | | | | | | Suma Canister Sample | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | O2 % | CH4 % | CO2 % | Balance % | Purge Start Time | Purge End Time | Canister Number | Initial Vacuum Gauge Reading (in. Hg) | Final Vacuum Gauge Reading (in. Hg) | Canister Filling Time |
| B6500 Lake#3 (8') | 5/6/09 | 1144 | 8' | Fine to coarse sand with gravel | 1 | 18.2 | 0.0 | 0.6 | 81.2 | 1140 | 1144 | 595 | ---- | ---- | 4 mins |
| B6504 Walker#1 (8') | 5/6/09 | 1515 | 8' | Fine to coarse sand with gravel | <1 | 18.6 | 0.0 | 0.9 | 80.5 | 1512 | 1515 | 47 | ---- | ---- | 4 mins |
| B6504 Walker#2 (8') | 5/7/09 | 1014 | 8' | Fine to coarse sand with gravel | 1.1 | 18.3 | 0.0 | 0.5 | 80.2 | 1011 | 1014 | 1219 | ---- | ---- | 4 mins |
| B6824 Lake#1 (8') | 5/7/09 | 1422 | 8' | Fine to coarse sand with gravel | 3.3 | 18.9 | 0.0 | 0.3 | 80.8 | 1419 | 1422 | 796 | ---- | ---- | 4 mins |
| B6824 Lake#2 (8') | 5/8/09 | 1030 | 8' | Fine to coarse sand with gravel | 3.3 | 18.6 | 0.0 | 0.5 | 80.9 | 1027 | 1030 | 425 | ---- | ---- | 4 mins |
| B6824 Lake#3 (8') | 5/8/09 | 906 | 8' | Fine to coarse sand with gravel | <1 | 19.0 | 0.0 | 0.3 | 80.6 | 903 | 906 | 815 | ---- | ---- | 4 mins |
| VP-Equipment Blank #1 | 3/6/09 | 1530 | 4' above ground surface | Fine to coarse sand with gravel | <1 | 20.6 | 0.0 | 0.0 | 79.4 | 1528 | 1530 | 809 | ---- | ---- | 5 min |

# Appendix E

Sampling Information Forms

AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 12º Windy
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6714 Walker #1 (W) Date sampled 3/3/09
Time 945
Describe sampling point Front of building, ≈6' SE of crn
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 48.1 feet below monitoring point (mp)
Depth to water (below mp) = 41.4 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 20º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6512 Walker #1 (W) Date sampled 3/4/09
Time 1210
Describe sampling point Front of 6512, between curb and pavement, west side of entry door
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 47.7 feet below monitoring point (mp)
Depth to water (below mp) = 43.7 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? ____ No ____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary Took duplicate and called it B-6512 Walker #11(W)

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 15º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6512 Walker #2 (W) Date sampled 3/3/09
Time 1405
Describe sampling point N side of building, near door that has "No UPS" sign
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 51.0 feet below monitoring point (mp)
Depth to water (below mp) = 42.2 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 15º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6512 Walker #3 (W) Date sampled 3/3/09
Time 1655
Describe sampling point N side of building near door that has "No UPS" sign
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 43.1 feet below monitoring point (mp)
Depth to water (below mp) = 39.1 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 20º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-3340 Gorham #1(W) Date sampled 3/4/09
Time 1655
Describe sampling point SE crn of bld, 6' out from tree
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 45.0 feet below monitoring point (mp)
Depth to water (below mp) = 35.7 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 20º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-3340 Gorham #2(W) Date sampled 3/5/09
Time 1245
Describe sampling point 3' SW of crn
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 46.5 feet below monitoring point (mp)
Depth to water (below mp) = 39.2 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other
Tubing type: Teflon Black poly Other
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 20º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-3326 Gorham #2(W) Date sampled 3/6/09
Time 1430
Describe sampling point 8' N of wall, 15' W of corner
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 47.1 feet below monitoring point (mp)
Depth to water (below mp) = 38.9 feet Date _____ Time _____
Well diameter = .75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other _____
Tubing type: Teflon _____ Black poly _____ Other _____
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other _____
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 38º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7008 Walker #1 (W) Date sampled 3/30/09
Time 1115
Describe sampling point West side of 7008 Walker
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 32 feet below monitoring point (mp)
Depth to water (below mp) = 26.25 feet Date Time
Well diameter = 0.75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) <1 gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1110 | 8.21 | 102 | 425 | 9.5 | | 0.1 |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 35º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7008 Walker #2 (W) Date sampled 3/30/09
Time 1300
Describe sampling point N side of building, between 2 windows and 3'feet from building
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 32 feet below monitoring point (mp)
Depth to water (below mp) = 26.45 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 38º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7008 Walker #3 (W) Date sampled 3/30/09
Time 1645
Describe sampling point West of big tree, NE of building approximately 20 feet
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 43.1 feet below monitoring point (mp)
Depth to water (below mp) = 39.1 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 38º rain
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7020 Walker #1 (W) Date sampled 3/31/09
Time 1230
Describe sampling point South of garbage enclosure
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 32.4 feet below monitoring point (mp)
Depth to water (below mp) = 27.8 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary Took duplicate and called it B-7020 Walker #11(W) @ 1235
Unable to pump water up, pull twenty feet of rod and collected samples

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Overcast 38º drizzle
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7020 Walker #2 (w) Date sampled 3/31/09
Time 1440
Describe sampling point Front of building
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = _____ Datum = _____ Water elevation = _____
Well depth (prior to sampling) = 28.78 feet below monitoring point (mp)
Depth to water (below mp) = 23.61 feet Date _____ Time _____
Well diameter = 0.75 inches Water level above screen? _____ No _____ Yes _____ feet
Volume of water in well = _____ gallons

**PURGING INFORMATION:**

Purging method: Bailer _____ Submersible pump _____ Tap _____ Other peristaltic pump
Tubing type: Teflon _____ Black poly _____ Other poly
Pump intake or bailer set at _____ feet below monitoring point (mp).
Discharge rate (if applicable) _____ gpm x 0.1336806 = _____ cfm
At least _____ well volumes evacuated before sampling, totaling _____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer _____ Tap _____ Other Peristaltic Pump
Tubing type (if applicable): Teflon _____ Other poly
Bailer was: Disposable _____ Laboratory cleaned _____ Field cleaned _____ Other _____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 32º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-7020 Walker #3(W) Date sampled 4/1//09
Time 1000
Describe sampling point NE corner of Park
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 32.2 feet below monitoring point (mp)
Depth to water (below mp) = 27.2 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 35º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6225 37th #1(W) Date sampled 5/5/09
Time 1125
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 62 feet below monitoring point (mp)
Depth to water (below mp) = 53 feet Date Time
Well diameter = 2 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer x Submersible pump Tap Other
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at waterline feet below monitoring point (mp).
Discharge rate (if applicable) <1 gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer x Tap Other
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary Conducted Duplicate @1140

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6425 Oxford #1(W) Date sampled 5/4/09
Time 1201
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~32.0 feet below monitoring point (mp)
Depth to water (below mp) = 27.18 feet Date 5/4/09 Time 1145
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other
Tubing type: Teflon Black poly Other
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6425 Oxford #2(W) Date sampled 5/4/09
Time 1330
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~31.9 feet below monitoring point (mp)
Depth to water (below mp) = 27.21 feet Date 5/4/09 Time 1305
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty cloudy Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6425 Oxford #3(W) Date sampled 5/4/09 Time 1610
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~32 feet below monitoring point (mp)
Depth to water (below mp) = 28.42 feet Date 5/4/09 Time 1550
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty cloudy Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 35º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6528 Lake #1(W) Date sampled 5/5/09
Time 1125
Describe sampling point South side of building in front of door
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 42.7 feet below monitoring point (mp)
Depth to water (below mp) = 37.6 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sunny 40º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6528 Lake #2(W) Date sampled 4/3/09
Time 1430
Describe sampling point SE corner of building
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = 42.8 feet below monitoring point (mp)
Depth to water (below mp) = 38.4 feet Date Time
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer Submersible pump Tap Other peristaltic pump
Tubing type: Teflon Black poly Other poly
Pump intake or bailer set at feet below monitoring point (mp).
Discharge rate (if applicable) gpm x 0.1336806 = cfm
At least well volumes evacuated before sampling, totaling gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer Tap Other Peristaltic Pump
Tubing type (if applicable): Teflon Other poly
Bailer was: Disposable Laboratory cleaned Field cleaned Other
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6528 Lake #3 (W) Date sampled 5/5/09 Time 1030
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~44.0 feet below monitoring point (mp)
Depth to water (below mp) = 37.06 feet Date 5/5/09 Time 930
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1020 | 8.20 | +82 | 365 | 16.6 | | 0.5 |
| 1025 | 8.15 | +81 | 421 | 16.6 | | 0.75 |
| 1030 | 8.11 | +80 | 419 | 16.6 | | 1.0 |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Ryan Doherty
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6500 Lake #1(W) Date sampled 5/5/09
Time 1503
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~44.5 feet below monitoring point (mp)
Depth to water (below mp) = 38.16 feet Date 5/5/09 Time 1452
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1453 | 833 | +59 | 459 | 18.9 | | 0.25 |
| 1458 | 832 | +64 | 456 | 19.0 | | 0.5 |
| 1503 | 836 | +69 | 459 | 19.0 | | 0.75 |

AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6500 Lake #2 (W) Date sampled 5/6/09
Time 1030
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~40.0 feet below monitoring point (mp)
Depth to water (below mp) = 38.77 feet Date 5/6/09 Time 1015
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1020 | 8.15 | +94 | 452 | 16.2 | | 0.25 |
| 1025 | 8.13 | +96 | 456 | 16.3 | | 0.5 |
| 1030 | 8.12 | +93 | 453 | 16.3 | | 0.75 |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6500 Lake #3(W) Date sampled 5/6/09
Time 1345
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~ 44.0 feet below monitoring point (mp)
Depth to water (below mp) = 38.9 feet Date 5/6/09 Time 1330
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1335 | 8.22 | +111 | 401 | 18.5 | | 0.25 |
| 1340 | 8.15 | +86 | 356 | 18.3 | | 0.5 |
| 1345 | 8.07 | +54 | 351 | 18.3 | | 0.75 |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6504 Walker #1 (W) Date sampled 5/7/09
Time 940
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~44.0 feet below monitoring point (mp)
Depth to water (below mp) = 41.41 feet Date 5/7/09 Time 925
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other ____
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 930 | 8.11 | -21 | 811 | 16.6 | | 0.25 |
| 935 | 8.05 | -26 | 751 | 16.6 | | 0.5 |
| 940 | 8.01 | -35 | 708 | 16.6 | | 0.75 |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6504 Walker #2 (W) Date sampled 5/7/09
Time 1311
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~44.0 feet below monitoring point (mp)
Depth to water (below mp) = 41.97 feet Date 5/7/09 Time 1254
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling 0.20 gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other ____
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty brown Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6824 Lake #1(W) Date sampled 5/7/09
Time 1639
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~48 feet below monitoring point (mp)
Depth to water (below mp) = 44.13 feet Date 5/4/09 Time 1617
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty cloudy Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1619 | 8.52 | +50 | +421 | 17.4 | | 0.2 |
| 1628 | 8.38 | +50 | +419 | 17.4 | | 0.4 |
| 1639 | 8.34 | +49 | +418 | 17.4 | | 0.6 |
| | | | | | | |
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AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6824 Lake #2(W) Date sampled 5/8/09
Time 1412
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~47 feet below monitoring point (mp)
Depth to water (below mp) = 44.74 feet Date 5/8/09 Time 1358
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty cloudy Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1401 | 8.34 | +73 | 444 | 17.1 | | 0.1 |
| 1406 | 8.3 | +69 | 451 | 17.2 | | 0.2 |
| 1412 | 8.28 | +63 | 440 | 17.2 | | 0.4 |
| | | | | | | |
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| | | | | | | |

AECOM

# SAMPLING INFORMATION FORM

AECOM Environment
161 Cheshire Lane North
Minneapolis, MN 55441

Sampler's Name: Jason Rowe
Weather: Sun 60º
Unusual Conditions
Project St. Louis Park Investigation
Location St. Louis Park, MN
AECOM project number 04660024
Sample ID number B-6824 Lake #3(W) Date sampled 5/8/09
Time 1027
Describe sampling point
Unique Well Number

**MONITORING WELL INFORMATION:** (If Applicable)

Monitoring point elevation = Datum = Water elevation =
Well depth (prior to sampling) = ~48 feet below monitoring point (mp)
Depth to water (below mp) = 44.3 feet Date 5/8/09 Time 1358
Well diameter = .75 inches Water level above screen? ____ No ____ Yes ____ feet
Volume of water in well = gallons

**PURGING INFORMATION:**

Purging method: Bailer ____ Submersible pump ____ Tap ____ Other Peristaltic Pump
Tubing type: Teflon ____ Black poly ____ Other poly
Pump intake or bailer set at ____ feet below monitoring point (mp).
Discharge rate (if applicable) ____ gpm x 0.1336806 = ____ cfm
At least ____ well volumes evacuated before sampling, totaling ____ gallons.

**SAMPLING INFORMATION**

Sampling method: Bailer ____ Tap ____ Other Peristaltic Pump
Tubing type (if applicable): Teflon ____ Other poly
Bailer was: Disposable ____ Laboratory cleaned ____ Field cleaned ____ Other ____
Sample collected from waterline feet below monitoring point. (mp)
Sample collection discharge rate (if applicable): = <1 gpm
Sample appearance silty cloudy Odor None detected
Note any sampling observations if necessary

Chemical Analysis low-level VOC

**FIELD STABILIZATION**

| Military time | pH | Oxidation Reduction Potential (mV) | Temperature corrected conductance (EC) (µs/cm) | Temperature [°C] | Water Level (nearest 0.01 ft.) | Cumulative volume of water removed [gal.] |
|---|---|---|---|---|---|---|
| 1012 | 8.44 | +9 | 444 | 14.5 | | 0.1 |
| 1019 | 8.33 | -1 | 445 | 14.6 | | 0.2 |
| 1027 | 8.3 | -4 | 445 | 14.6 | | 0.4 |
| | | | | | | |
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| | | | | | | |

# Appendix F

Probing/Borehole Locations, Waypoints (Superfund and Emergency Response Section – Spatial Data Reporting Spreadsheets)

St. Louis Park VOC Sources Investigation
AECOM Project Number: 04660-024

## Probing/Borehole Locations, Waypoints

| Boring ID | Collection Date & Time | UTM | Elevation | Organization Name | Organization Type | Collection Method | | |
|---|---|---|---|---|---|---|---|---|
| B-6714 #1 | 06-MAR-09 5:50:49PM | 15 T 471253 4976251 | 938 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6714 #2 | 06-MAR-09 5:42:10PM | 15 T 471256 4976293 | 944 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6714 #3 | 06-MAR-09 5:47:16PM | 15 T 471207 4976284 | 933 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6512 #1 | 06-MAR-09 5:55:33PM | 15 T 471410 4976245 | 945 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6512 #2 | 06-MAR-09 5:58:33PM | 15 T 471409 4976278 | 947 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6512 #3 | 06-MAR-09 6:00:55PM | 15 T 471416 4976277 | 937 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3340 #1 | 06-MAR-09 8:54:14AM | 15 T 471049 4976329 | 938 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3340 #2 | 06-MAR-09 9:04:14AM | 15 T 471030 4976309 | 943 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3340 #3 | 06-MAR-09 9:27:40AM | 15 T 471009 4976348 | 911 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3326 #1 | 06-MAR-09 12:24:58PM | 15 T 470995 4976368 | 939 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3326 #2 | 06-MAR-09 3:40:15PM | 15 T 470964 4976413 | 928 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-3326 #3 | 06-MAR-09 4:17:23PM | 15 T 470948 4976390 | 958 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7008 #1 | 30-MAR-09 1:44:14PM | 15 T 471088 4976267 | 939 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7008 #2 | 30-MAR-09 12:47:06PM | 15 T 471097 4976278 | 910 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7008 #3 | 30-MAR-09 4:17:18PM | 15 T 471120 4976262 | 922 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7020 #1 | 31-MAR-09 2:08:03PM | 15 T 471043 4976274 | 920 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7020 #2 | 31-MAR-09 2:15:06PM | 15 T 471051 4976250 | 915 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-7020 #3 | 01-APR-09 9:59:04AM | 15 T 471086 4976266 | 995 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6225 #1 | 01-APR-09 4:08:15PM | 15 T 471695 4975947 | 988 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6225 #2 | 02-APR-09 3:24:13PM | 15 T 471683 4975931 | 958 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6225 #3 | 02-APR-09 3:54:00PM | 15 T 471698 4975938 | 962 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6425 #1 | 03-APR-09 2:27:24PM | 15 T 471472 4975876 | 954 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6425 #2 | 02-APR-09 1:54:55PM | 15 T 471462 4975845 | 910 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6425 #3 | 03-APR-09 2:30:11PM | 15 T 471491 4975814 | 967 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6528 #1 | 03-APR-09 10:52:09AM | 15 T 471435 4976450 | 938 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6528 #2 | 03-APR-09 1:54:16PM | 15 T 471448 4976434 | 939 ft | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6528 #3 | 06-MAY-09 8:25:00 AM | 15 T 471424 4976475 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6500 #1 | 06-MAY-09 8:23:00 AM | 15 T 471009 4976348 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6500 #2 | 06-MAY-09 8:22:00 AM | 15 T 471440 4976607 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6500 #3 | 06-MAY-09 9:04:00 AM | 15 T 471505 4976491 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6504 #1 | 07-MAY-09 8:35:00 AM | 15 T 471428 4976243 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6504 #2 | 07-MAY-09 1:50:00 PM | 15 T 471432 4976280 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6824 #1 | 07-MAY-09 2:02:00 PM | 15 T 471330 4976277 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6824 #2 | 07-MAY-09 1:50:00 PM | 15 T 471330 4976277 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |
| B-6824 #3 | 07-MAY-09 2:05:00 PM | 15 T 471330 4976277 | Unavailable | AECOM | Consultant | GPS-Reciever | Symbol & Name | |

# Appendix G

Sampling and Analysis Plan

Prepared for:
**Minnesota Pollution Control Agency**
**St. Paul, Minnesota**

# Sampling and Analysis Plan
# Investigation of the Potential Sources of Chlorinated VOCs, St. Louis Park, MN

AECOM, Inc.
February 2009
**Document No.: 04660024**

AECOM

# Sampling and Analysis Plan
# Investigation of the Potential Sources of Chlorinated VOCs, St. Louis Park, Minnesota

*Document Developed for:*
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

*Document Developed by:*
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AECOM Project Quality Assurance Officer

David Moore
MPCA Project Manager

AECOM, Inc.
February 2009
Document No.: 04660024

AECOM

# Contents

**I. Personnel, Responsibilities and Communication ..... 1**

**II. Project Background and Scope ..... 3**

**III. Sampling and Analysis Design ..... 4**

Sampling Design ..... 4

Analysis Design ..... 5

**IV. Internal Quality Assurance ..... 6**

Field Work ..... 6

Laboratory Work ..... 7

**V. Corrective Action ..... 8**

**VI. Data Assessment ..... 9**

# I. Personnel, Responsibilities and Communication

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Representative for the City of St Louis Park
Mr. Brian Hoffman
Phone: 952/924-2584
Fax: 952/924-2663
Email: bhoffman@stlouispark.org

The specific responsibilities of the project members are listed below.

AECOM Project Manager

1. Provide supervision and project assignments to AECOM staff.
2. Responsible for development of request for proposal, bidding process for subcontracting direct push and laboratory analytical services.
3. Oversee the project activities to ensure sampling methodologies, sample preparation reports, chain of custody procedures and all other procedures are being adequately adhered to.
4. Maintain record of all samples taken at the site including sample identification information.
5. Be in charge of project team organization and delegate specific tasks to be performed by field staff.
6. Coordinate arrangements with subcontractor.
7. Monitor or delegate to project staff monitoring for hazardous conditions while conducting the project field activities.
8. Complete the Project Report after all necessary work has been completed.
9. Be responsible for review of all project deliverables.
10. Meet with MPCA Project Manager for review of progress and results of the project activities.

AECOM Project Manager/Quality Assurance Officer

1. Be responsible for review of all project deliverables.
2. Define the objectives of the soil, soil gas and groundwater sampling program.
3. Provide appropriate criteria and guidance to the sampling personnel on the proper methods.
4. Review the subcontractor laboratory provided reports, including the data validation report.

MPCA Project Manager

1. Coordinate the overall activities of the study.
2. Administer work orders and fiscal obligation with AECOM.
3. Provide assistance with site access issues, if required.
4. Serve as point of contact for all MPCA responsibilities associated with the site evaluation.
5. Meet/communicate with the project team to discuss and review analytical results prior to finalizing the report.
6. Act as point of contact for public inquiries related to the site study. All questions directed to AECOM will be deferred to the MPCA Project Manager.

MPCA Hydrogeologist

1. Participate in project meetings including data review.
2. Review the work plan prepared by AECOM related to the objectives of the study and anticipated site conditions.
3. Provide technical assistance to AECOM as requested during the field activities.
4. Review the draft report for technical accuracy.

Representatives for City of St. Louis Park and City of Edina

1. Provide assistance with site access issues, as required.

# II. Project Background and Scope

Chlorinated VOC contamination is present in the vadose zone (shallow soils above water table) and groundwater within the City of St. Louis Park. This contamination was documented during several environmental studies conducted by AECOM on behalf of the MPCA and then by the US EPA (Highway 7 and Wooddale Avenue Soil Vapor Study - http://www.pca.state.mn.us/cleanup/soil-vapor.html). Those studies found several "hot-spot areas" (the areas with the highest detected soil vapor contamination) near Highway 7 and Wooddale Avenue, in St. Louis Park.

The aim of the proposed newest stage study (subject to this Sampling and Analysis Plan - SAP) is to identify sources of chlorinated VOC contamination via environmental sampling of the "hot-spot areas". The proposed study will produce soil, soil gas and groundwater samples. However, the principal goal is to find soil contamination. Documenting soil contamination would help identify land properties that are the sources of soil gas and groundwater contamination known to be present in the area. Once (and if) such contamination is identified, the contaminated sites can be addressed in the future via additional site/source characterization and/or remedial action. MPCA shall review the project report and shall make decisions as to further action.

The following thirteen sites are proposed for investigation:

| Site No. | Site | Business Name or Owners | Address |
|---|---|---|---|
| 1 | Tall Sales Co. | CPE Exchange 25246 LLC | 6714 Walker St and adjacent buildings |
| 2 | Presswrite Printing, Inc. | Alan J Goltzman | 3384 Brownlow Ave. |
| 3 | MinValco Inc. | Minvalco Inc | 3340 Gorham Ave. |
| 4 | Lighting Plastics of Minnesota | David J Kohn Trustee | 3326 Gorham Ave. |
| 5 | Audio by Design | Nineteenth Cntry Entrprs LLC | 6516 Walker St. |
| 6 | Eclipse Electric Manufacturing | Eclipse Electric Mfg Co | 6512 Walker St. |
| 7 | Graphics facility located next to Eclipse Electric | Walker Street LLLP | 6504 Walker St. |
| 8 | Professional Instruments | Professional Instruments | 6824 Lake Street West |
| 9 | Property located at 6225 37th Street West | Keith J. Kaufenberg | 6225 37th Street West |
| 10 | Ace Supply Property (Ace Supply Company, Inc) | Hasselbring Family Ltd Ptshp | 3825 Edgewood Ave. S. |
| 11 | Care Cleaners | D G Paul & M A Paul Trustees | 6528 W. Lake St. |
| 12 | Techno Graphics | Thomas & Catherine Dunn | 6500 Lake St. W. |
| 13 | Pampered Pooch | Wayne R Benson | 7020 Walker St. |

The sites are proposed to be tested using direct-push technology. The tests will include collection of three types of samples: soil samples, vadose zone (soils above water table) soil gas samples and groundwater samples collected from the first encountered, shallow groundwater. If the water table is encountered at a depth greater than 50 feet below ground surface, no groundwater sample will be collected. The probes shall be completed at three locations at each site. A total of all probing locations within this project shall not exceed 40 locations, three per each of the thirteen sites, plus up to one additional location.

An effort shall be made to perform the probings at locations of most likely contamination. Available information will be used to select the locations, such as previous vapor studies, loading docks and other site-specific information.

# III. Sampling and Analysis Design

## Sampling Design

Soil Samples

A Macrocore® sampler will be advanced at each probe location to collect continuous soil samples and determine the depth of the shallow groundwater. Soil samples will be collected every four feet and at changes in lithology and will be screened with a photoionization detector (PID) equipped with an 11.7 eV lamp and calibrated daily to 100 parts per million (ppm) isobutylene. The soil samples will be screened in general accordance with the MPCA polyethylene bag headspace screening procedure as outlined in the Soil Sample Collection and Analysis Procedures - Guidance Document 4-04 (MPCA, Petroleum Remediation Program, September 2008). Soil samples for low level VOC analysis will be collected from soils exhibiting highest PID readings or from soils with obvious visual and/or olfactory indications of contamination. If no elevated PID readings or visual/olfactory evidence of contamination is observed, one sample will be collected per probing location from just above the water table or terminus of the probe (if no water table was encountered) for VOC analysis.

Boring logs should be used to keep track of changes in lithology for each probe. PID readings and sample collection depths should be recorded on the boring logs.

Low level VOC soil sampling will be accomplished by using Terra Core Kits. Preserved Terra Core Kits contain: one 40 mL vial with 5 mL of methanol, two 40 mL vials with 5 mL of sodium bisulfate, one 60 mL amber bottle, and one 5 gram Terra Core sampler. The filled Terra Core sampler (approximately 5 grams) is extruded into laboratory supplied vials. Each vial will receive 5 grams of soil, except for the 60 mL amber bottle. If effervescence occurs with the sodium bisulfate preservative, a new vial using laboratory-grade distilled water will be used instead of sodium bisulfate. These vials will be frozen by the laboratory within 48-hours of sampling. The 60 mL amber bottle will be used for moisture content and should be at least half-filled. When the Terra Core Kit is completed, the soil sample will be placed into a cooler filled with ice and transported to the laboratory.

Groundwater Samples

Groundwater will be allowed to equilibrate upon encountering the water table and, after equilibration, the probe will be advanced a minimum of 5 feet beneath the water level. Next, a decontaminated stainless steel sampling screen will be inserted into the probe hole to obtain a groundwater sample for low level VOC analysis. The groundwater sample will be obtained with a peristaltic pump equipped with disposable tubing using low flow sampling techniques if groundwater is encountered at 30 feet or less. If the water table is encountered at depth greater than 30 feet, a bailer will be used to collect the sample. Groundwater samples will be collected in 40 mL VOA bottles with no headspace and preserved with HCl. Collected samples will be immediately chilled to approximately 4 degrees Celsius and kept under refrigerated conditions.

The direct push probe will be terminated at a depth of 50 feet or 5 feet below the water table, if the water table is encountered at shallower depth. If the water table is not encountered to a depth of 50 feet, the probe will be terminated at that depth. If probing consistently encounters problems caused by geological factors (i.e., presence of cobbles) at a depth greater than 30 feet below ground surface, the probing will also be terminated.

Soil Gas Samples

A soil gas probe will be advanced at each probe location to a depth of 8 feet below ground surface (or less, if the water table is shallower than 8 feet) in a separate hole in the direct vicinity of the soil/groundwater sampling probe locations. A soil gas sample shall be collected from a depth of 8 feet, if the water table is present at a depth of 10 feet or deeper than 10 feet below ground surface. If the water table is at a depth less than 10 feet below ground surface, the sample shall be collected at least 2 feet above the water table and from a depth of

least 3 feet below ground surface. If the water table is found at a depth less than 5 feet, no soil gas sample will be collected.

Soil gas samples will be collected utilizing push probes using the Post-Run Tubing (PRT) sampler. Prior to collection of a sample, the probe will be purged. A minimum two volumes (i.e., total volume of the sampling point and tube) will be purged. The purge device used will be a multi-gas detector (e.g. Landtech GEM 500) that has an integral, calibrated flow sample pump. This instrument has a steady-flow pump that allows for predictable sample line purging; the unit is allowed to run for the time required to purge the sample line. The instrument sensor readings are observed, and the sample line purging is considered to be confirmed when the readings appear to stabilize and two volumes of the sampling point have been purged. The multi-gas monitor collects measurements of subsurface gas constituents such as oxygen, carbon dioxide, and methane which are useful in interpreting sample results and evaluating subsurface air flux. An in-line moisture trap shall be installed to prevent moisture from entering the sampling canister (see "Vapor Intrusion Assessment Performed during Site Investigation – Guidance Document 4-01a, Petroleum Remediation Program, October 2008", Section II A).

Soil gas samples will be collected in five-Liter SUMMA canisters.

All the collected soil, soil gas and groundwater samples shall be delivered to the laboratory for analysis no later than five days after the collection time. This five-day requirement will provide additional assurance that the laboratory can analyze the sample before the holding time for VOC analysis is exceeded (of 14 days for soil and groundwater VOC samples and 30 days for soil gas samples contained in canisters).

## Analysis Design

Soil and soil gas samples shall be submitted to a State Contract laboratory for analysis. Groundwater samples shall be submitted to the Minnesota Department of Health laboratory for analysis.

The soil samples shall be subject to low-level VOC analysis using the USEPA method 8260.

The groundwater samples shall be subject to low-level VOC analysis using the USEPA method 8260.

Soil gas samples shall be subject to analysis for all the VOCs included in the Minnesota Soil Gas List using method TO-15 and the method as defined by the EPA in the EPA/625/R-96/010b dated January 1999 or updates.

# IV. Internal Quality Assurance

## Field Work

One duplicate sample shall be collected per day of sampling work if more than five samples in any one category (soil, soil gas, groundwater) are collected in one day, and a minimum of one duplicate per ten collected samples. Two equipment blank samples shall also be obtained using subcontractor's equipment for collection of an air sample drawn through the sample train.

The collected samples will be labeled. The label will include the following information:

- sample identification;
- date and time of sample collection;
- sampling depth;
- name of person who collected the sample.

Quality assurance (QA) procedures to be used in the field are aimed at ensuring that contaminants are not introduced into the samples by sample containers, sampling equipment, sampling procedures, sample labeling equipment, or any other part of the sampling or transport procedures. The other aim of the QA procedures is to maintain a reasonable effort to collect data that are representative of the site conditions and that measurements (field and laboratory) are accurate.

All measurements taken in the field will be recorded on the AECOM Sampling Information Form and the AECOM Environmental Field Report will serve as the quality assurance record for the on-site observations.

The following quality control tasks will be completed in the field to maintain the quality assurance objectives.

- Equipment is decontaminated prior to sampling.
- All field equipment/instruments are calibrated.
- Proper operation of field equipment is performed.
- Proper techniques are used when collecting and handling samples.
- Proper preservation methods are used with all samples.
- Sample information is always recorded.
- Chain of custody form is properly completed prior to laboratory shipment.

PID instruments used in the field shall be calibrated and operated using the following recommendations:

- Calibrate the instrument ambient air.
- In humid and/or cold conditions, keep instrument in heated vehicle to prevent moisture condensation due to extreme temperature fluctuations.
- If taking readings in a vehicle, measure ambient air before measuring the sample (headspace). VOCs can volatilize from vinyl dashboards (especially new cars).
- Avoid anything that can cause interference with instrument readings such as smoking, insect repellant, auto exhaust, markers, etc.
- Document wind, temperature, humidity, calibration data, problems encountered, locations, field observations, etc.

In addition to field visit(s) which the MPCA Project Manager or Hydrogeologist may decide to undertake, AECOM Project Manager or Quality Assurance Officer will conduct at least two field visits during the project to observe and document that the field personnel are following the procedures as outlined in this SAP.

## Laboratory Work

The project collected soil and soil gas samples shall be analyzed by the State Contract laboratory – Pace Analytical Services, Inc. The project collected groundwater samples shall be analyzed by the Minnesota Department of Health Laboratory (MDH).

Quality Assurance Manuals (QAMs) for all MPCA approved laboratories are on file with MPCA. Standard operating procedures (SOPs) are included in the QAMs.

The Quality Assurance objectives of each approved laboratory are stated in the Statement of Work (SOW) for that laboratory.

Both the Pace Analytical and the MDH laboratories will provide reports discussing the data review and validation. The content of that review and validation will follow the content and fulfill the requirements of the Laboratory Data Checklist issued by MPCA in May 1998.

# V. Corrective Action

Corrective action will be taken by the laboratory if analytical results do not meet the required Quality Assurance standards.

If the quality control audit detects unacceptable conditions or data, the Quality Assurance/Quality Control Officer and Project Manager are responsible for developing and initiating appropriate changes or modifications, and documenting those changes. The condition or problem will be specifically identified, recorded in the appropriate log or project file, investigated, and the cause determined. Changes or modifications will then be initiated to eliminate the problem. The corrective action may include the following options:

- Re-analyze samples if holding time and sample volume permit.
- Evaluating and amending and/or analytical procedures.
- Accepting data, while documenting a level of uncertainty.

Upon implementation of corrective action, AECOM will document the corrective action in the study report. A Corrective Action Report (CAR) will be provided by the laboratory. The AECOM CAR will document actions taken and their effectiveness will be established and elimination of the problem verified. The laboratory CAR will be included as an attachment to the AECOM CAR. Details regarding the changes or modifications implemented and the results will be documented and retained in the project file. The case narrative(s) will fully describe any corrective action taken by the laboratory and/or AECOM. All field corrective action will be documented by the Project Manager on the Sampling Information Form and summarized for the site file.

# VI. Data Assessment

The collected field and laboratory data will be presented in a project report that will include tabulation of field monitored parameters (PID readings, oxygen, carbon dioxide, and methane), sample collection time, sample depth, sampling location (address, GPS coordinates), SUMMA canister and other sampling devices filling time, tabulation of the laboratory VOC analytical results, comparison of the detected concentrations with Intrusion Screening Values (ISVs), Groundwater Intrusion Screening Values (GWISV), Soil Leaching Values (SLVs) and drinking water criteria (HRLs), data validation report, interpretation and discussion of the results and recommendations for further work. Laboratory analysis reports will be included as an appendix to the report and will include quality control sample results and description of qualifiers. A Data Validation Report will be included as another appendix to the report.

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## About AECOM Environment

Evolving to better serve global clients, AECOM has formed a new global business line that combines the environmental management resources of ENSR, Earth Tech, STS and Metcalf & Eddy. With 4200 staff in 20 countries, AECOM's environmental practice is one of five new globally integrated business lines of AECOM (AECOM Water, AECOM Transportation, AECOM Design, AECOM Energy and Power).
As AECOM's global Environment group, we can offer clients broader and deeper environmental health and safety services with greater technical expertise across greater geographies—closer to sites and facilities. Plus, we can deliver more value by leveraging the full resources of AECOM's worldwide staff of 43,000 people in 450 offices. Our commitment to the success of your projects and your organization is our top priority, as we harness the global capabilities of AECOM.

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