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RE: Long-Term Monitoring Report

Petroleum Source Removal Areas of Concern Former Griffiss Air Force Base, Rome, New York

Contract No. F41624-03-D-8601-0027

FPM Project No. 40-05-27

Revision 0.0 December 2008

Submitted herewith for your review and comment is the subject report, provided in support of recently completed work at the former Griffiss Air Force Base. The work was completed under the above-referenced Performance-Based Contract (PBC).

Please provide written comments no later than Feb 2, 2009. If you have any questions pertaining to the report or the request for review, please call me at 315-336-7721 ext. 202, or e-mail me at g.atik@fpm-group.com.

Very truly yours,

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Petroleum Source Removal Areas of Concern Former Griffiss Air Force Base Rome, New York

LONG-TERM MONITORING REPORT

(Fall 2008)



Contract No. F41624-03-D-8601

Revision 0.0 December 2008



LONG TERM MONITORING REPORT (Spring 2008)

PETROLEUM SOURCE REMOVAL AREAS of CONCERN

Prepared for:

Air Force Real Property Agency Former Griffiss Air Force Base Rome, New York

through

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APPENDICES

(All appendices are located on a CD in the back of this binder.)

Appendix A Daily Contractor Quality Control Reports

Appendix B Validated Lab Data

Appendix C Raw Lab Data

LIST OF ACRONYMS AND ABBREVIATIONS

AFB Air Force Base

AFCEE Air Force Center for Engineering and the Environment

AOI Area of Interest

ARAR Applicable or Relevant and Appropriate Requirements

AST aboveground storage tank

AVGAS aviation gasoline

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, xylene

BTOIC below top of inner casing

COC contaminant of concern CSM Conceptual Site Model

c.y. cubic yard

DO dissolved oxygen

EBS Environmental Baseline Survey
E&E Ecology and Environmental, Inc.
ESI Expanded Site Investigation

FID flame ionization detector

FPM FPM Group, Ltd. FSP field sampling plan

JP-4 jet propulsion fuel grade 4

LAW Law Engineering and Environmental Services, Inc.

LTM long-term monitoring

MOGAS automotive gasoline MSL mean sea level

NYS New York State

NYSBC New York State Barge Canal

NYSDEC New York State Department of Environmental Conservation

ORC® Oxygen Release Compound®

ppm parts per million

QAPP Quality Assurance Project Plan

RI Remedial Investigation

SAP sampling and analysis plan

SI site investigation

SRA source removal area of concern

STARS Spill Technology and Remediation Series

SVOC semi-volatile organic compound

TAGM Technical and Administrative Guidance Memorandum

TPH Total Petroleum Hydrocarbon

USEPA United States Environmental Protection Agency

UST underground storage tank

VOC volatile organic compound

μg/L micrograms per liter

1 INTRODUCTION

FPM Group Ltd. (FPM) has been contracted by the Air Force Center for Engineering and the Environment (AFCEE), to conduct a long-term monitoring (LTM) program for groundwater at the Tank Farms 1&3 Petroleum Source Removal Area of Concern (SRA) at the former Griffiss Air Force Base (AFB), New York. The LTM program was conducted in accordance with provisions of the Basic Contract No. F41624-03-D-8601 Delivery Order No. 0027. The purpose of the LTM program is to monitor the presence of contaminants of concern (COCs), assess the potential for migration of the COCs, statistically identify groundwater trends for the COCs, and establish an early warning system for assuring compliance with potential COC receptors.

Data evaluation and report preparation for the LTM program includes semi-annual summary updates and a more detailed annual report. The LTM program will also be reviewed periodically to revise sampling locations and/or sampling frequencies for optimal functioning. This semi-annual LTM report includes collection, analysis, and reporting of COCs for the following SRA from June 2002 through March 2008:

 Tank Farm 1 and 3 SRA SS-20 (New York State Department of Environmental Conservation [NYSDEC] Spill #9111733)

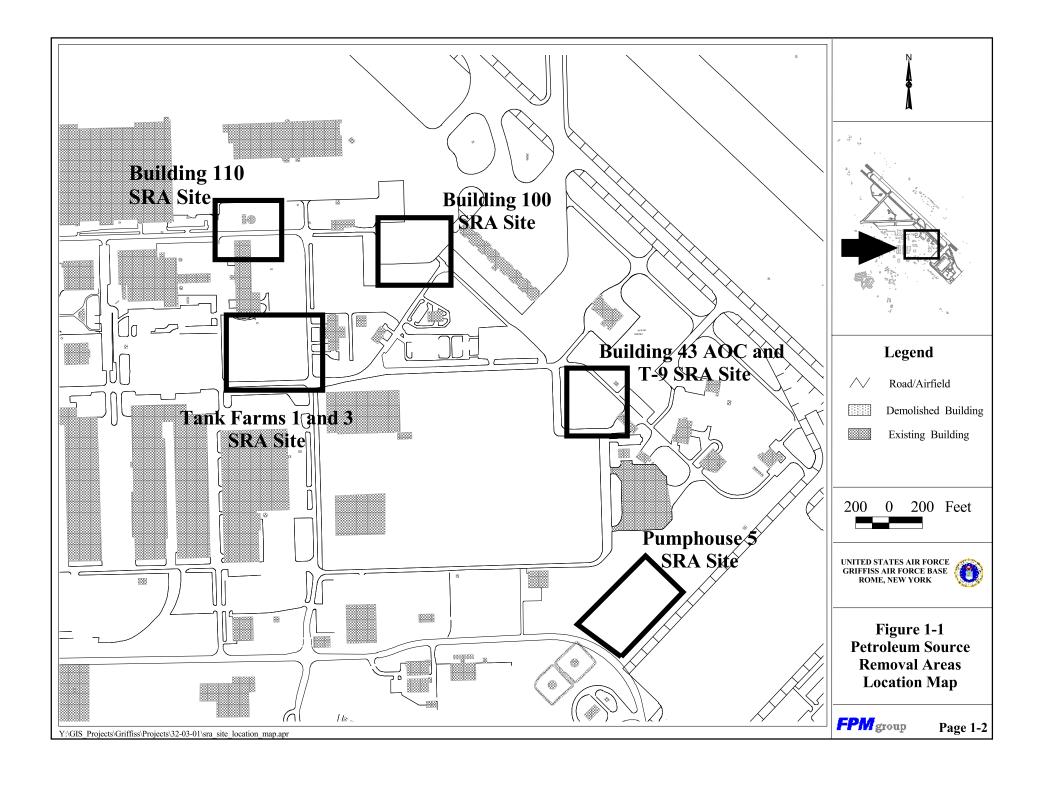
The locations of the Petroleum SRA can be reviewed in Figure 1-1. LTM was recommended by FPM and approved by NYSDEC by their approval of site-specific workplan and groundwater monitoring reports for Tank Farms 1 and 3 (FPM, November 2001).

As part of the performance based contract, it should be noted that the following sites were previously sampled under LTM, and were closed or proposed for closure.

- Building T-9 SRA SS-25 (NYSDEC Spill #9702173). Spill closed September 24, 2004
- Building 43 SRA ST-26 (NYSDEC Spill #9204543 and #9313076) proposed for closure, March 2005
- Building 110 SRA ST-36 (NYSDEC Spill #8603763). Spill closed September 29, 2004
- Building 771/Pumphouse 5 SRA ST-37 (NYSDEC Spill #8903144). Site closed October 20, 2004
- Building 100 SRA ST-51 (NYSDEC Spill #9704490). Spill closed September 29, 2004

Groundwater samples were collected from each of the sites listed and analyzed for the respective COCs as identified during previous investigations (e.g., volatile organic compounds [VOCs] and semivolatile organic compounds [SVOCs]). Both existing data and information from new sampling rounds are utilized for overall performance evaluation.

New wells were installed according to the protocol as described in the Field Sampling Plan (FSP) (FPM, August 2003). Reference is also made to the AFCEE Quality Assurance Project Plan (QAPP) Version 3.1 (AFCEE, 2001), prior to June 2006 and Version 4.0 (AFCEE, 2005) is



used currently, with project-specific variances. The QAPP together with the FSP form the Sampling and Analysis Plan (SAP).

1.1 Long-Term Monitoring Approach

1.1.1 Long-Term Monitoring Background

To illustrate how this LTM Program will operate, the following highlights the overall objectives, components, and constraints of the groundwater LTM Program.

The objectives of LTM are:

- To continue refining the conceptual site model (CSM) for groundwater flow so that the predictions regarding the fate and transport of COCs are accurate;
- To establish an early warning monitoring system for the protection of potential receptors prior to completion of exposure pathways;
- To evaluate COC degradation due to remedial action or natural attenuation processes; and
- To collect data that support attainment of spill closure.

Typical components of a groundwater LTM system include:

- One or more upgradient well(s) representative of background conditions; and
- LTM wells that track the COC migration or degradation trend.

Constraints associated with a groundwater LTM system include:

All monitoring wells must be screened in the same hydrogeologic unit as the COC plume or known/probable groundwater pathway from a potential source; and Downgradient LTM wells must be located to detect unexpected variations in groundwater quality as efficiently as possible (i.e., with respect to groundwater migration rates and downgradient flow direction).

Given the above objectives and constraints the design of an LTM system considers the following tasks:

- 1. Selecting water-level observation wells and water quality monitoring wells from existing monitoring wells and piezometers, or selecting locations for new wells, depending on the evaluation of existing data (i.e., well logs, water-level measurements, proximity to natural flow boundaries, trends and uncertainties in the existing data) and the specific intended and distinct role of that monitoring point;
- 2. Providing a statistical evaluation of water-level elevation data for groundwater flow direction, existing COC concentrations, and groundwater chemistry to predict long-term trends:

- 3. Identifying performance evaluation criteria (e.g., statistical tests), including appropriate analysis methods for evaluating data variations or closure attainment;
- 4. Identifying water quality sampling frequency at each monitoring point both for understanding the trends of COCs and/or their indicator analytes, and minimizing the costs and maximizing the benefits of the program;
- 5. Identifying physical and chemical parameters (e.g., transport and attenuation properties) for the COCs; and
- 6. Periodically assessing the LTM monitoring well network for addition of new monitoring wells or possible decommissioning of monitoring wells from the LTM program.

1.1.2 Purpose of LTM Program

Each site-specific LTM Work Plan has identified monitoring points that will best detect groundwater COCs that are known to exist at the Petroleum SRA, and track their transport over time to support a decision for either continued monitoring, remedial measures (i.e., free product recovery in those cases where free product is encountered), or spill closure. The LTM Program will use historic data and new information from annual and quarterly sampling rounds at specified existing and new monitoring wells.

2 ENVIRONMENTAL SETTING

2.1 PHYSIOGRAPHY AND TOPOGRAPHY

The former Griffiss AFB is located in the city of Rome in Oneida County, New York (refer to Figure 2-1). The former Base lies within the Mohawk Valley between the Appalachian plateau and the Adirondack Mountains. A rolling plateau northeast of the former Base reaches an elevation of 1300 feet above mean sea level (MSL). The New York State Barge Canal (NYSBC) and the Mohawk River valley south of the former Base lie below 430 feet above MSL. The topography across the former Base is relatively flat with elevations ranging from 435 feet above MSL in the southwest portion to 595 feet above MSL in the northwest portion of the former Base.

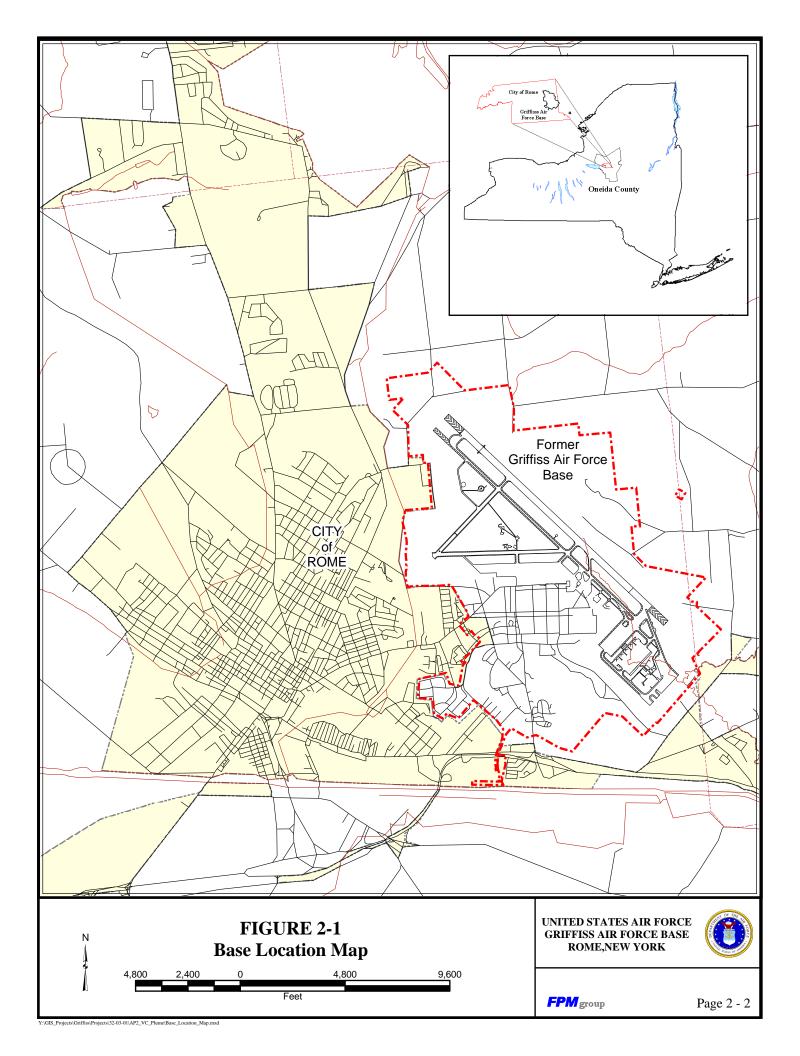
2.2 GEOLOGY

Unconsolidated sediments at the former Griffiss AFB consist primarily of glacial till with minor quantities of clay and sand and significant quantities of silt and gravel. The thickness of these sediments range from 12 feet in the northeast portion to more than 130 feet in the southern portion of the former Base. The average thickness of the unconsolidated sediments is 25 to 50 feet in the central portion and 100 to 130 feet in the south and southwest portions of the former Base. The bedrock beneath the former AFB generally dips from the northeast to the southwest and consists of Utica Shale, a gray and black carbonaceous unit with a high/medium organic content (Remedial Investigation (RI), Law Engineering and Environmental Services, Inc. (LAW), December 1996).

2.3 HYDROGEOLOGY

The shallow water table aquifer lies within the unconsolidated sediments, where depth to groundwater, during the December 1998 synoptic Base-wide water-level measurement of wells, ranged from just below the ground surface to approximately 57 feet below ground surface (bgs) in the southwest portion of the base and to 63 feet bgs in the northeast portion of the former Base (FPM, September 2000). Several surface water creeks act as discharge areas for shallow groundwater, and drainage culverts and sewers intercept surface water runoff.

A comprehensive description of regional and local geology, hydrogeology, lithology, and hydrology for the former Griffiss AFB was given in the RI (LAW, December 1996), and in the Supplemental Investigation (SI) prepared by Ecology and Environment, Inc. (E&E, July 1998). Detailed site descriptions and the hydrology for each Petroleum Source Removal Area are presented with each site-specific section.



2.4 CLIMATE

The former Griffiss AFB experiences a continental climate characterized by warm, humid, moderately wet summers and cold winters with moderately heavy snowfalls. The mean annual precipitation is 45.6 inches, which includes the mean annual snowfall of 107 inches. The annual evapotranspiration rate is 23 inches. The average temperature during the winter season is 20 degrees Fahrenheit; temperatures during the spring, summer, and fall vary from 31 to 81 degrees Fahrenheit. The prevailing winds are from the southwest, with an average wind speed of 5 knots.

The former Griffiss AFB is located in a region prone to acid precipitation; the annual average pH of precipitation recorded for 1992 at the three closest stations ranged from 4.25 to 4.28. Fluctuations in pH have an inverse correlation to precipitation, such that lower pH levels correlate with higher amounts of precipitation (LAW, December 1996).

2.5 BIOLOGY

The former Griffiss AFB, covering 3,552 acres of property within the Erie-Ontario ecozone of the Great Lakes Physiographic Province, has been heavily disturbed from an ecological perspective. Although there are a few undisturbed communities within the former Base's boundary, the 1993 Inventory of Rare Plant Species and Significant Natural Communities identified six significant habitats of special concern occurring on the former Base (New York Natural Heritage Program, January 1994). None of these habitats occur adjacent to the Petroleum Source Removal Areas described in this report.

2.6 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS IDENTIFICATION

At the Petroleum SRA to be monitored under the LTM Program, the Applicable or Relevant and Appropriate Requirements (ARARs) and other criteria and guidelines to be considered include the NYSDEC Spill Technology and Remediation Series (STARS), Technical and Administrative Guidance Memorandum (TAGM): Determination of Soil Cleanup Objectives and Cleanup Levels, January 1994, NYSDEC Interim Procedures for Inactivation of Petroleum-Impacted Sites, January 1997, and NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998.

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3 TANK FARMS 1 AND 3 SRA (IRP SITE SS-20, NYSDEC SPILL #9111733)

3.1 SITE LOCATION AND HISTORY

The Tank Farms 1 and 3 SRA is located in the central portion of the former Griffiss AFB, as shown in Figure 1-1. The site is a grass-covered area that is located southeast of Building 112 and is bounded by Brooks Road to the south, Otis Street to the east, and Moody Street to the west. The SRA encompasses the former fuel storage facilities for the following products: aviation gasoline (AVGAS), jet propulsion fuel grade 4 (JP-4), automotive gasoline (MOGAS), diesel fuel, fuel oil, and deicing fluid. The Tank Farms 1 and 3 site layout is shown in Figure 3-1.

Tank Farm 1 is the former location of eight 25,000-gallon underground storage tanks (USTs). The USTs are numerically identified as UST 114-1 through UST 114-8. The tanks originally contained AVGAS, then were used for diesel fuel, MOGAS, and finally fuel oil. Other former facilities associated with Tank Farm 1 include one 50,000-gallon aboveground storage tank (AST) for deicing fluid (AST 6045), one underground 50,000-gallon deicing fluid tank (UST 5885), one pumphouse (Building 114), one pump pit, separator tanks, and one water separator pit. The pumphouse was connected to a railroad car unloading stand with three outlets used to off-load fuel from railroad cars into the tanks (Tetra Tech, September 1994; E&E, December 1997). Open NYSDEC Spill #9111733 is associated with former USTs 114-1 through 114-8.

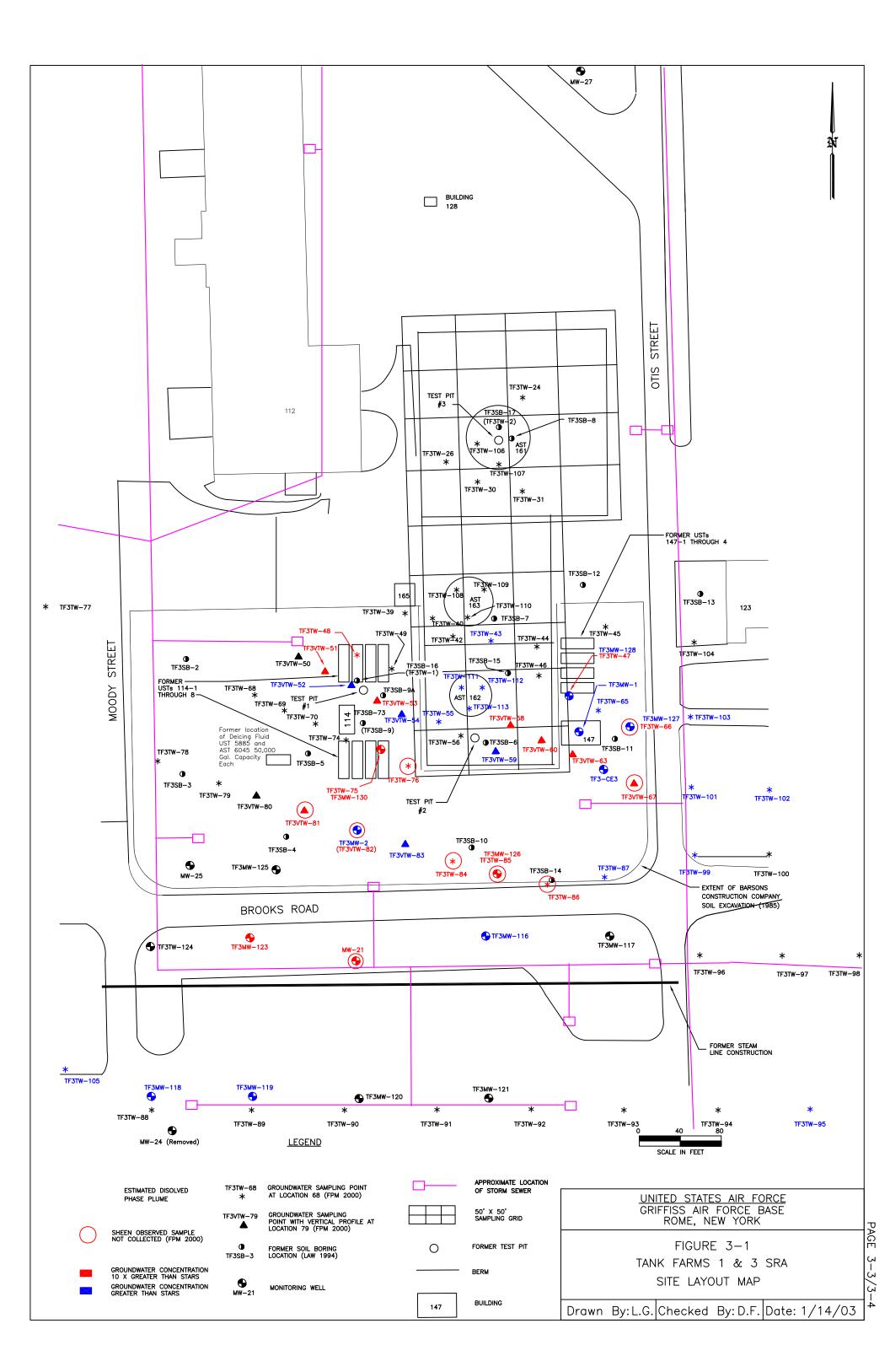
Tank Farm 3 is the former location of four 25,000-gallon USTs (UST 147-1 through -4) that contained JP-4. Other former facilities associated with Tank Farm 3 include two pumphouses (Buildings 147 and 165), one pump pit, separator tanks, one water separator pit, and three aboveground bulk fuel storage tanks (ASTs 161, 162, and 163). The former bulk fuel ASTs originally contained JP 4 but were later used to store fuel oil. Former AST 161 was 840,000 gallons in capacity and former ASTs 162 and 163 were both 420,000 gallons in capacity. Each bulk fuel AST was surrounded by a soil berm.

3.2 DESCRIPTION OF PREVIOUS SAMPLING AND INVESTIGATIONS

In November 1981, Base Fuels verified that 2 to 3 gallons per day of JP-4 leaked from eight valves at Tank Farm 3 for an indefinite period (LAW, February 1995).

In the fall of 1982, investigative soil borings associated with the construction of a steam line were installed to the south of Brooks Road and former Tank Farm 1, where free product was found floating above the water table in the area. In October 1983, the Base Civil Engineering Department installed and sampled well TF3-CE3, shown in Figure 3-1. The well was found to contain free product. When monitoring well TF3-CE3 was sampled again during the summer of 1984, no free product was detected.

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In October 1983, the Base Civil Engineering Department installed and sampled well TF3-CE3, shown in Figure 3-1. The well was found to contain free product. When monitoring well TF3-CE3 was sampled again during the summer of 1984, no free product was detected.

In the summer of 1984, Roy F. Weston, Inc. installed 33 temporary wells and eight permanent wells. The Weston report hypothesized that the source of the fuel in the groundwater was potentially contributed by two sources: (1) numerous small spills and leaks from the Tank Farms, and (2) from a former truck maintenance shed that was located north of Building 3, where base personnel informed Weston that waste fuels were discharged to the subsurface via a drywell (Weston, November 1985). Review of the 1994 Environmental Baseline Survey (EBS) did not confirm information on drywells or a truck maintenance shed north of Building 3, prior to 1985. The Expanded Site Investigation (ESI) of Area of Interest (AOI) Site 58/101 detected minor SVOCs in surficial soils north of Building 3; however, the groundwater was not impacted (Tetra Tech, September 1994).

In November 1985, all ASTs and USTs associated with Tank Farms 1 and 3 were removed, with the exception of the bulk fuel ASTs (AST 161, 162, and 163). While underground piping was being cut and capped at Tank Farm 1, a 4-inch pipe was found to be full of AVGAS. While a similar action was being performed at Tank Farm 3, the contractor discovered 3 inches of fuel on the floor of Building 147 (Tank Farm 3 pumphouse) and fuel in a header pipe. Industrial Tank and Oil Company subsequently removed the fuel (1,200 gallons). There is no indication in the administrative records that endpoint sampling was performed following the removal of the ASTs and USTs.

In December 1985, Barsons Construction Company removed 60,000 cubic yards (c.y.) of contaminated soil and replaced it with clean fill.

In 1988, the bulk fuel ASTs (AST 161, 162, and 163) and associated underground facilities were removed, along with any contaminated soils. The soil berms surrounding the bulk fuel ASTs were used to fill the excavated area previously occupied by the removed contaminated soil and underground facilities. Additional cover soil was placed on top of the former berm material to bring the excavated area to grade.

In 1993 and 1994, monitoring wells TF3MW-21, -25, -27 and TF3-CE3 were sampled as part of the quarterly sampling program. The analytical results indicated no VOC or SVOC exceedances of the New York State (NYS) Groundwater Standards. No VOC, SVOC, or metal data were found to exist for wells TF3MW-22, -23, -24, -26, and -28. Based on the October 1998 well/piezometer inventory (E&E, January 1999), and visual inspection, these additional wells do not exist at the present time.

Groundwater observation wells TF3TW-1 and -2 were placed as close as practical to boring locations TF3SB-16 and -17, respectively, to identify the presence of free product. No free

product was observed in either temporary well. However, the boring logs and field notes from TF3TW-1 indicated flame ionization detector (FID) readings as high as 1,000 parts per million (ppm) near the surface of the water table (14 ft bgs) and sheen on all split-spoon samples. The field notes for TF3TW-2 indicated a maximum FID reading of 100 ppm at an interval from 4 to 6 ft bgs (vadose zone) and a slight sheen on all split-spoon samples, except the interval from 0 to 2 ft bgs.

In 1999 and 2000, FPM completed a Supplemental Study to fill data gaps and fully delineate groundwater contamination at the site (FPM, September 2000). A total of 96 soil borings were installed with 72 groundwater samples collected and analyzed using United States Environmental Protection Agency (USEPA) methods 8021 for VOCs and 8270 for SVOCs. In addition, groundwater samples were collected from existing monitoring wells TF3MW-1, TF3-CE3, and TF3MW-21 and newly installed TF3MW-2. These locations are shown in Figure 3-1.

In general, groundwater sample analysis showed numerous exceedances downgradient of USTs 114-1 through -8 (NYSDEC open Spill #9111733) and USTs 147-1 through -4. Except for minor exceedances at TF3TW-43 and -55, groundwater samples immediately downgradient from former Building 165, bulk fuel storage ASTs 161, 163, and 6045, and UST 5885 showed no groundwater exceedances.

In November 2001, monitoring wells TF3MW-116, -117, -118, -119, -120, -121, -123, -124, -125, -126, -127, -128, -129, and -130 were installed and developed prior to sampling. A source removal action in Fall 2002, at the Tank Farms 1 and 3 site, removed residual soil contamination that was identified during the previous soil boring activities and not removed during the Barson's excavation in 1985. Approximately 12,800 c.y. of soil was excavated from locations within the former bermed area and vicinity including the former building 147 footprint at Tank Farms site. Removal of the residual soil contamination continued into the saturated zone where contamination was located and stopped any additional leaching of contamination to groundwater from the vadose zone (Parsons, December 2003).

In December 2005, Oxygen Release Compound (ORC®) Advanced was injected into seventeen borings. Site utilities made injection impossible south of Brooks Road and ORC® socks were installed in existing monitoring wells instead. Five pounds of ORC® per foot were injected from 20 to 14 feet bgs. Injection took place in the source area of Tank Farms 1 & 3 as shown on Figure 3-1 and added to downgradient monitoring wells TF3MW-21, -116, -117, -119R, -121R and -123 by the use of ORC® socks in October 2005.

In summary, separate petroleum plumes may have originated from three locations including, USTs 114-1 through -8 and USTs 147-1 through -4, as well as the former truck maintenance shed north of Building 3, possibly in the vicinity of TF3MW-123 or -125. The dissolved groundwater plume appears to be well defined and to be naturally attenuating. Based on

observations at the site and based on the size and stability of the dissolved plume, residual free product has not been identified (FPM, February 2004).

3.3 LTM PLAN

Table 3-1 summarizes the original LTM sampling and analysis plan. The objectives of the Tank Farm 1 and 3 LTM program include the following:

• Monitor the groundwater to track plume migration.

Table 3-1
Tank Farms 1 and 3 Quarterly Sampling Analysis Summary

Site/	Screen	Sampling Rationale	Target Analytes/	Sampling
Sampling	Interval		USEPA Method Numbers	Frequency
Locations	(ft. MSL)			
TF3-CE3	442-457	Downgradient, within plume	VOCs 8260 AFCEE QAPP	
TF3MW-2	450-460	Downgradient, within plume	3.1 List	Quarterly
TF3MW-21	445-465	Downgradient within plume		
TF3MW-25	444-464	Crossgradient	SVOCs 8270	
TF3MW-116	449-459	Downgradient within plume		
TF3MW-117	448-458	Crossgradient from plume	* Natural attenuation	
TF3MW-123	449-459	Downgradient within plume	parameters pH, temperature,	
TF3MW-124	449-459	Crossgradient from plume	redox potential, ferrous	
TF3MW-125	449-459	Downgradient	iron, and dissolved oxygen	
TF3MW-126	449-459	Downgradient within plume	will be measured in the	
TF3MW-127	450-460	Upgradient within plume	field.	
TF3MW-128	451-461	Upgradient within plume		
TF3MW-129	451-461	Upgradient from plume	Alkalinity, nitrate, sulfate,	
TF3MW-130	451-461	Upgradient within plume	sulfide	

3.4 Results

Eighteen sampling rounds were conducted at the Tank Farm 1 and 3 SRA site. In order to increase the readability of the report, all discussion of past sampling rounds has been eliminated. Only the sampling round relevant to this report (March 2008) is discussed in detail. Detailed descriptions of past sampling rounds can be found in a previously issued LTM report (FPM, August 2007). The discussion of site activities has been preserved to inform the reader of pertinent information. Sampling locations are identified on Figure 3-2. The detected groundwater analytical results are shown in Table 3-2, and total VOC detections and groundwater elevations are illustrated in Figures 3-3 and 3-4. Groundwater flow is to the south-southeast.

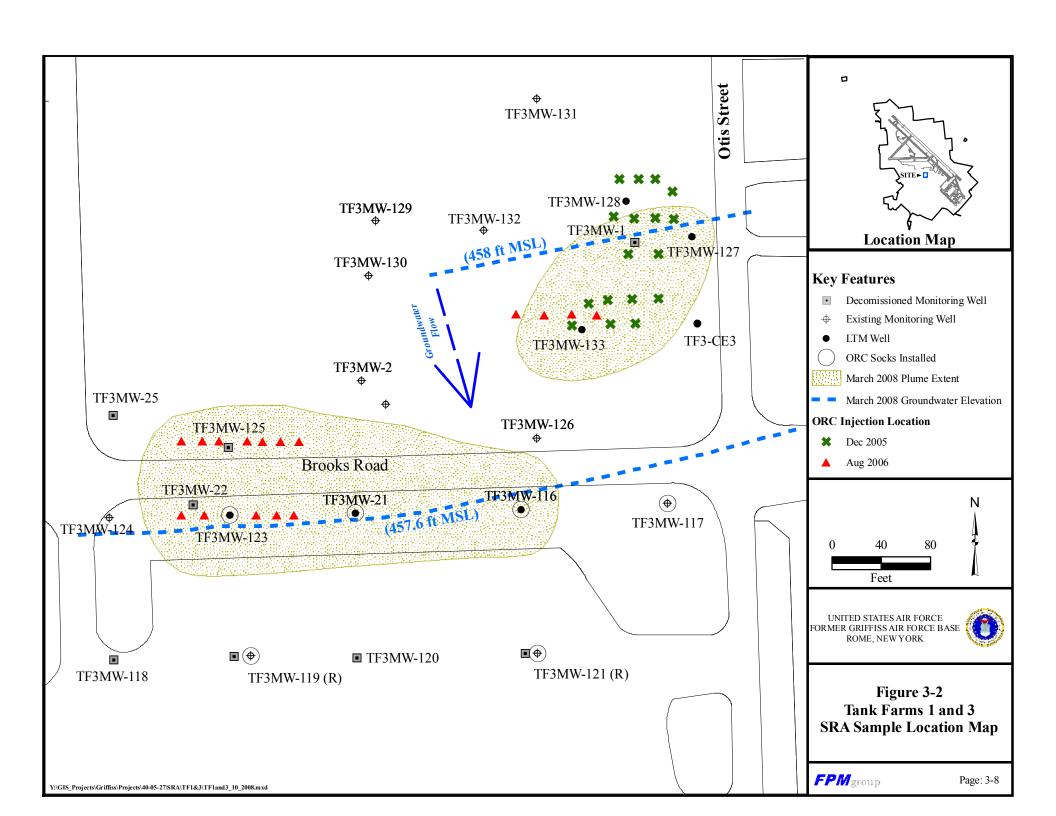


Table 3-2 Tank Farms 1 and 3 Detected Analytical Results

Monitoring Well ID	NYSDEC							Dette	ieu Anaiyucai Ke		F3-CE3								
Sample ID	GW	TF3CE313AA	TF3CE312BB	TF3CE313CA	TF3CE312DA	TF3CE312EA	TF3CE313FA	TF3CE313GB	TF3CE313HB	TF3CE312IB	TF3CE313JB	TF3CE313KB	TF3CE313LB	TF3CE313MA	TF3CE312NA	TF3CE313OA	TF3CE313PA	TF3CE312RA	TF3CE312SA
Date of Collection	Standards1	2/19/02	6/19/02	9/13/02	12/12/02	3/12/03	6/20/03	9/12/03	12/12/2003	3/17/2004	6/17/2004	9/16/2004	1/3/2005	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/20/2007	3/20/2008
Sample Depth (ft)	(μg/L)	13	12	13	12	12	13	13	13	12	13	13	13	13	12	13	13	12	12
VOCs (ug/L)	10.																		
1,1-dichloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.18 F	U
cis-1,2-dichloroethylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.11 F	U
n - butylbenzene	5	1.1	1.1	U	U	U	U	U	U	2.7	0.85 F	8.6	0.37 F	1.4	0.46 F	1.1	1.31	0.45 F	1.17
sec-butylbenzene	5	4.4	4.8	8.1	3.4 ♦	1.9	1.6	1.7	6.0	6.0	5.0	5.8	2.9	4.7	2.8	3.7	4.06	2.45 J	2.7
t-butylbenzene	5	0.85	1.1	1.2	0.83 ♦	0.39 F	U	0.34 F	0.79 F	0.71 F	0.69 F	0.78 F	0.46 F	0.7 F	0.50 F	0.59 F	0.85	0.54 F	0.63 F
chloroethane	5	U	U	0.21 F	U	U	U	U	U	U	U	U	U	0.22 F	U	0.29 F	U	U	U
chloromethane	5	U	U	0.24 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5	0.21 F	U	0.37 F	U	U	U	U	U	0.28 F	U	0.22 F	U	U	U	U	U	U	U
isopropylbenzene	5	6.9	7.6	13	5.1 ♦	2.1	3.1	3.6	9.8	11	7.8	8.7	3.4	7.3	3.2	5.2	6.4	3.67 J	3.74
methyl ethyl ketone	5	U	U	U	U	1.6 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.37 F	U
naphthalene	10	U	1.3	5.2	2 J	0.72 F	0.78 F	0.81 F	2.6	3.8	2.0	2.2	0.71 F	2.2	0.81 F	1.6 B	2.33	1.16	U
n-propylbenzene	5	8.1	5.8	11	4.8 ♦	2	2.3	2.1	10	13	8.4	U	3.4	8.6	3.4	5.8	6.68	3.16 J	5.38
trichloroethylene	5	1.7	0.98	1	2	2	1.4	3	1.6	1.3	1.1	1.2	1.7	0.95 F	1.7	1	1.13	U	1.15
Total VOCs		22.16	21.58	40.32	18.13	9.11	9.18	11.55	30.79	38.79	25.84	27.5	12.94	26.07	12.87	19.28	22.76	12.09	9.39
SVOCs (µg/L)																			
2-methylnaphthalene		6 F	U	U	U	U	2 F	4 F	3 F	U	N/S								
di-n-butyl phthalate	50	4 F	U	U	U	U	U	U	U	U	N/S								
Wet Chemistry Data (mg/L)																			
nitrate	10,000	0.36	0.087	0.32	N/A	0.38	0.71	0.60	0.56	0.63	0.46	0.52	0.17	0.4	N/S	N/S	N/S	N/S	N/S
sulfate	250,000	17.3	11.4 B	17.4	6.4	10.7 B	15	20.3	11.6	14.2	N/S								
sulfide		U	U	U	U	U	U	U	U	0.077 F	N/S								
total alkalinity		242	217	342	174	189	202	211	412	179 B	243	197	210	230	N/S	192	250	340	N/S
Field Parameters																			
dissolved iron (mg/L)		3.5	N/A	5.5	2.8	2.9	2.8	2.5	3.4	2.4	3	3	3.4	2.8	3	4	3.6	2.4	2.5
pH		7.11	7.88	6.68	7.12	7.09	7.29	7.32	6.61	7.32	7.22	7.74	7.93	7.01	6.84	7.46	7.29	7.59	6.84
specific conductance (µS/cm)		469	550	658	534	497	342	515	589	66	66	67	62	64	96.3	0.11	78.7	74.6	78
temperature (degrees C)		9.8	10.3	12.8	11.8	9.33	9.76	12.35	11.42	8.68	9.7	12	10.7	9.1	9.41	10.8	12.8	9.5	9.8
dissolved oxygen (mg/L)		4.23	1.05	1.62	2.78	4.62	3.12	6	2.95	3.3	3.5	4.03	5.6	6.41	2.49	6.05	4.77	10.54	5.92
oxidation reduction potential (mV))	-103	-127	-3	-114	-27	-122	-141	-110	-79	-108	-107	-88	50	-107	29	-26	-69	-97
Notes:																			

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- -- Indicates no NYS GA Groundwater Standard
- $\ensuremath{\bullet}$ Indicates higher value detected in the sample duplicate or during the dilution phase.
- B The analyte was also detected in a blank.
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- N/A Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

 UJ The analyte was not detected above the RL. However the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

Monitoring Well ID	NYSDEC		Tuin	Turing Tuna 0 1	Detected Analytica	TF3MW-2	icu)				
Sample ID	GW	TF3M0214AA	TF3M0214BB	TF3M0219CA	TF3M0214DA	TF3M0214EA	TF3M0214FA	TF3M0215GB	TF3M0214HB	TF3M0214IB	l
Date of Collection	Standards1	2/26/02	6/19/02	9/13/02	12/12/02	3/12/03	6/23/03	9/12/03	12/12/2003	3/18/2004	
Sample Depth (ft)	(µg/L)	14	14	19	14	14	14	15	14	14	l
VOCs (ug/L)											
1,1,1-trichloroethane	5	U	0.68	0.31 F	0.41 F	0.54	0.35 F	U	U	U	l
1,2,4-trimethylbenzene	5	0.71	U	U	0.24 F	U	0.24 F	0.39 F	U	U	l
acetone	50	U	U	U	U	U	U	U	4.1 F	U	l
chloroform	7	1.8	2	0.77	1.3	2.1	0.92	0.83	1.1 B	1	2004
ethylbenzene	5	0.54	0.3 F	0.24 F	0.21 F	U	0.3 F	U	U	U	8
isopropylbenzene	5	0.66	U	0.58	0.38 F	U	0.29 F	0.29 F	0.43 F	U	was not sampled after March
methyl ethyl ketone	5	U	U	U	U	1.6 UJ	U	U	U	U	/Jai
n-propylbenzene	5	0.39 F	U	0.31 F	0.23 F	U	0.23 F	U	U	U	<u> </u>
trichloroethylene	5	0.91	1	0.51	0.62	0.95	0.52 F	0.75 F	0.9 F	0.68 F	afte
m,p-xylene	5	0.45 F	U	U	U	U	U	U	U	U	2
Total VOCs		5.46	3.98	2.72	3.39	3.59	2.85	0.83	5.43	1.68	pldı
SVOCs (µg/L)											an
Total SVOCs		0	0	0	0	0	0	0	0	0	ot s
Wet Chemistry Data (mg/L)											S D
nitrate	10,000	1.3	1.1	1.5	N/A	1.3	0.8	0.94	1	1.3	wa
sulfate	250,000	27.2	17 B	13.1	9.1	17.6 B	16.5	15.7	15.3	18.1	Well
sulfide		U	U	U	U	U	U	U	U	U	≥
total alkalinity		144	120	148	87.2	132	148	158	222	218	
Field Parameters											l
dissolved iron (mg/L)		0.3	N/A	0.8	0.8	0	0	0	0.4	0	l
рН		7.35	7.58	7.26	7.17	7.49	7.26	7.42	6.44	7.4	l
specific conductance (µS/cm)		326	360	544	469	277	287	426	459	48	
temperature (degrees C)		10.3	10.4	12.7	12.5	9.96	10.49	12.13	12.44	9.41	l
dissolved oxygen (mg/L)		5.65	3.92	3.79	6.19	6.8	5.56	6.26	4.97	6.7	l
oxidation reduction potential (mV)		-47	-19	-19	-35	226	-11	-73	78	52	

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- -- Indicates no NYS GA Groundwater Standard
- - Indicates higher value detected in the sample duplicate or during the dilution phase.
- B The analyte was also detected in a blank.
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- N/A Analyte was not analyzed during sampling
- R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
- $\ensuremath{\text{UJ}}$ The analyte was not detected above the RL. However the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

Sample ID	NYSDEC									TF3M	W-21								
	GW	TF3M2114AA	TF3M2114BB	TF3M2115CA	TF3M2113DA	TF3M2114EA	TF3M2114FA	TF3M2114GB	TF3M2114HB	TF3M2114IB	TF3M2114JB	TF3M2114KB	TF3M2114LB	TF3M2114MA	TF3M2114NA	TF3M2114OA	TF3M2114PA	TF3M2114RA	TF3M2114R
	Standards1	2/27/02	6/19/02	9/13/02	12/12/2002	3/12/2003	6/23/2003	9/11/2003	12/12/2003	3/18/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/21/2007	3/21/2008
Sample Depth (ft)	(µg/L)	14	14	15	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14
OCs (ug/L)																			
1,1-dichloroethane	5	0.33 F	0.25 F	U	0.23 F	0.24 F	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-tetrachloroethane	5	U	1.9	U	U	0.16 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	U	U	2.1 J ♦	U	0.25 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichloropropane	0.04	U	1.1	U	U	0.16 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5	3.3	2.4 ♦	11	0.41 F	2.2 J ♦	0.9 F	9.6	1.8	U	1.9 F	U	U	U	0.56 F	U	1.04 ♦	U	U
1,3,5-trimethylbenzene	5	1.3	U	0.4 F	U	0.5 J ♦	U	2.6	U	U	U	U	U	U	U	U	U	U	U
benzene	1	0.75	0.55	0.56 ♦	U	0.15 UJ	U	U	U	U	U	U	U	U	U	U	0.23	U	U
n - butylbenzene	5	5.1	4.4	6.9 J ♦	4.3	0.22 UJ	U	8.1	U	3.8 F	3 F	2.5 F	1.8 F	2.2 F	2	4 ♦	3.2 ♦	0.96 F	U
sec-butylbenzene	5	6.4	6.4	9.8	4.8	4.7 J ♦	U	7.2	6.4	2.9 F	5.4	5.3	3.8 F	3.3 F	4.6	5.3 J	5.1	2.26 F	1.24
-butylbenzene	5	1.8	1.6	2.3	1.2	1.3 J ◆	1.2 J	2	U	U	0.69 F	1.5 F	U	Ü	1.2	1.4 J	1.84 ♦	0.8 F	0.680 F
chloroethane	5	U	U	0.82 J ♦	0.55	0.16 UJ	0.44 F	U	U	U	U	U	U	Ü	U	1.3 J	U	U	U
chloromethane	5	U	U	0.85 ♦	0.33 F	0.26 J ♦	0.28 F	U	U	U	U	U	U	U	U	1 J	U	U	U
ethylbenzene	5	U	0.28 F	U	U	0.18 UJ	0.71 F	3.5	U	U	U	U	U	U	U	U	U	U	U
Hexachlorobutadiene	0.5	U	U	U	U	U	U	U	U	U	1.4 F	U	U	U	U	U	U	U	U
sopropylbenzene	5	34	28	50	36	25 J ♦	32 J	71	63	23	30	41	29	24	48 ♦	54 ♦	64	24.9	13.2
p-isopropyltoluene	5	8.9	7	10 ♦	4	4.4 J ♦	3.5 J	7.6	6.3	2.4 F	4.4 F	4.1 F	4 F	3.8 F	3.8 II	3.2 F ◆	4.1 ♦	1.1 F	1.04 F
methylene chloride	-	U	Ü	U	~	U	U	U	U	2.6 F		U		U		U	0	0.5 F	U
naphthalene	10	U	U	1.6 J ♦	0.78 J	0.21 UJ	0.7 F	2.2	2	U	1.1 F	1.2 F	1.2 F	1.6 F	2	1.8 J	3.26 ♦	1.58 F	U 2.52
n-propylbenzene	5	7.8	6.7	10	6.9	5.2 J ♦ 0.18 UJ	5.2 J	12	11	4.2 U	6.7	8.8	6.7	5.4 U	8.4	8.1 ♦	10.8	4.18 F U	2.52
tetrachloroethylene trichloroethylene	5	U	U	U	U	0.18 UJ 0.17 UJ	U	U	U U	U	U	U	U	U	U	U	U	U	U
toluene	5	0.31 F	U	0.48 F	U	0.17 UJ 0.16 UJ	U	U	U U	U	II.	2 F	U	U	U	U	0.24	U	U
					-				5.2	2 F			0		4.2				
m,p-xylene Total VOCs	5	4.4 74.39	4.5 65.08	8.2 108.11	1.2	1.9 J ♦ 40.5	2.3 J 42.03	18 143.8	95.7	40.9	3.7 F 58.29	2.4 F 68.8	2.8 F 49.3	3.2 F 43.5	74.76	1.1 F 81.2	1.18 94.99	U 36.28	U 18.68
SVOCs (µg/L)		/4.39	65.08	108.11	00.7	40.5	42.03	143.8	95.7	40.9	38.29	08.8	49.3	43.3	/4./0	81.2	94.99	30.28	18.08
		5 F	U	6	U		3 F	4 F	4 F	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2-methylnaphthalene	-	J F U	U	U	U	U U	3 F	4 F U	2 F	U	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S
acenapthene benzoic acid	-	U	U	U	U	13 UJ	17 R	18 R	U U	U	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S	N/S N/S
benzoic acid phenanthrene	-	II	U	U	II	13 03	I/ K	I I K	2 F	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
di-n-butyl phthalate	50	3 F	II	3	II	U	II	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,5-trichlorophenol	1*	3 F	3 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,6 - trichlorophenol	1*	U	4 M	U	U	U	U	U	II.	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4-dichlorophenol	1*	U	5 M	U	U	U	U	U	II.	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2.4-dinitrophenol	1*	U	13 M	U	II	11 UJ	U	II U	II.	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4,6-dinitro-2-methylphenol	1*	U	18 M	II.	U	U	U	U	II.	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4 - nitrophenol	1*	U	4 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Total SVOCs	-	8 F	0	9	0	0	3F	4 F	8 F	0	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)		٠.	Ü		Ů				٠.	, ,	140	100	.00	100	170	100	100	1700	1,7,5
nitrate	10000	U	U	U	U	U	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	4	9	3.7 B	4.5	10.5 B ◆	34.9	8.4	6.9	10.9	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		U	Ú	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
		233	185	210 ♦	158	178	182	221	456	215	210	187	174	166	N/S	147	240	190	N/S
total alkalinity																			
							1.9	1.6	2.4	1.6	2.4	3.2	3.6	3.6	3.8	3.7	2.8	1.9	3.4
Field Parameters		3.8	N/A	3.2	2	1.9													
		3.8 7.26	N/A 8.19	3.2 6.92	7.09	9.95	7.36	7.43	8.99	7.41	6.92	6.98	6.73	7.83	7.58	7.26	7.27	7.82	7.36
Field Parameters dissolved iron (mg/L)									8.99 979				6.73 68	7.83 92.8	7.58 114	7.26 89.2	7.27 0.12	7.82 69.5	
Field Parameters dissolved iron (mg/L) pH specific conductance (µS/cm)		7.26	8.19	6.92	7.09	9.95	7.36	7.43		7.41	6.92	6.98							7.36
Field Parameters dissolved iron (mg/L) pH specific conductance (µS/cm)	-	7.26 591	8.19 665	6.92 940	7.09 524	9.95 443	7.36 749	7.43 898	979	7.41 62	6.92 60	6.98 60	68	92.8	114	89.2	0.12	69.5	7.36 84.2

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

		Tank Fa	arms 1 and 3 Det	tected Analytical	Results (continued	.)			
Monitoring Well ID	NYSDEC			·	TF3MW-	25	·	·	
Sample ID	GW	TF3M2513AA	TF3M2513BB	TF3M2514CA	TF3M2512DA	TF3M2513EA	TF3M2513FA	TF3M2513GB	
Date of Collection	Standards ¹	2/26/02	6/19/02	9/13/02	12/12/2002	3/12/2003	6/20/2003	9/11/2003	
Sample Depth (ft)	(µg/L)	13	13	14	12	13	13	14	
VOCs (ug/L)									
acetone	50	U	U	U	U	U	U	2.4 F	
t-butylbenzene	5	1.8	U	U	U	U	U	U	
bromomethane	5	U	U	U	U	0.19 UJ	U	U	2003
chloroform	7	1.2	1.2	1.1	0.97	1.1	0.61	0.63	20
ethylbenzene	5	0.23 F	U	U	U	U	U	U	oer
tetrachloroethylene	5	0.29 F	0.27 F	0.33 F	0.28 F	0.31 F	U	0.29 F	after September
trichloroethylene	5	0.4 F	0.35 F	0.38 F	0.38 F	0.35 F	U	0.31 F	pte
toluene	5	U	U	U	U	U	U	U	·Se
m,p-xylene	5	U	U	U	U	U	U	U	fter
Total VOCs		3	1.2	1.1	0.97	1.1	0.61	3.94	75 T
SVOCs (µg/L)									ble
benzoic acid		U	U	U	U	13 UJ	17 R	18 R	m [
isophorone	50	U	U	U	U	U	1 R	U	t s
2,4-dinitrophenol	1*	U	U	U	U	11 UJ	U	U	0 u
Total SVOCs		0	0	0	0	0	0	0	well not sampled
Wet Chemistry Data (mg/L)									
nitrate	10000	1	0.83	0.85	N/A	1.5	0.92	0.7	ne
sulfate	250000	27.9	17.9 B	178 B	7.7	16.1 B	17.9	17.4	ssic
sulfide		U	U	U	U	U	U	U	mi
total alkalinity		160	122	148	106	131	140	139	Decomissioned
Field Parameters									Ω
Dissolved Iron (mg/L)		0.5	N/A	0.6	0.8	0.1	1.8	N/S	
рН		7.38	7.94	7.1	7.1	7.06	7.28	N/S	
Specific Conductance (µS/cm)		483	573	876	506	385	503	N/S	
Temperature (degrees C)		10.3	10.4	13.2	12.5	10.14	10.15	N/S	
Dissolved Oxygen (mg/L)		4.35	2.76	3.12	3.89	9.07	4.45	N/S	
Oxidation Reduction Potential (mV)		-77	-101	-22	-88	235	-108	N/S	

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- * Sum of total phenolic compounds may not exceed 1 (µg/L)
- ♦ Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- B The analyte was also detected in a blank.
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- M Matrix effect present
- N/A Analyte was not analyzed during sampling
- R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

Monitoring Well ID	NYSDEC						1 alik Fa	rms 1 and 3 Dete	cted Analytical	Kesuits (continue)	TF3MW-1	117								
Sample ID		TT00 F11 C10 1 1	TT 22 F1 1 C1 2 1 1		mmaa #44 c4 463 t	mman essection s	TE23411612E A	TE23411612E4	TE23411614CD	TF3M11613HB			TF3M11613KB	TE23411(121 B	TE23411612344	TF3M11613NA	TF3M11614OA	TE23411614D4	TF3M11613RA	TF3M11613SA
	Standards ¹	12/13/01	2/27/02	6/18/02	9/13/02	12/19/02	3/12/03	6/23/03	9/12/2003	12/12/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/20/2007	3/21/2008
Date of Collection			13	6/18/02			3/12/03	13	9/12/2003	13	13	13	9/13/2004	13	3/29/2005	3/28/2006	14	9/26/2006	13	3/21/2008
Sample Depth (ft)	(µg/L)	13	13	13	14	13	13	13		13	13	13	10	13	13	13	14	14	13	13
VOCs (ug/L)	_									**		0.265	134							
1,2,4-trimethylbenzene	5	U	U	U	U	U	U	U	U	U	Ü	0.26 F	UM	U	U	U	U	U	U	U
1,2-dichloropropane	1	U	0.82	U	U	U	U	U	U	U	Ü	U	U	U	U	U	U	Ü	U	U
p-isopropyltoluene	5	U	U	U	0.65	0.38 F	0.22 F	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5	10	8.1 ♦	7.3	10	10	4.1	7.9	3.1 ♦	3.5 ♦	4.9 ♦	6.5	13 M 2.8 M	14	8 M	8.7	4.5	4.03	4.44 J	7.79
t-butylbenzene	5	2.1	1.5 ♦	2.2	2.1	2.1	1.2	1.7 J	0.86 ♦	1.2 ♦	1.8 ♦	1.9		2.3	1.8 J	1.6	1.5	1.54	1.27	2.03
cis-1,2-dichloroethylene	5	U	0.26 F	U	U	U	U	U	U	0.24 F	Ü	U	U	U	U	U	U	U	U	U
chloroethane	5	U	U	U	U	U	U	U	U	U	Ü	U	U	U	0.36 F	U	0.54 F	U	U	U
ethylbenzene	5	U	U	U	U	U	U	U	U	U	U	0.24 F	U	0.21 F	U	U	U	U	U	U
isopropylbenzene	5	15	7.9 ♦	12	6.3	14	4.9	9	2.8 ♦	5.8 ♦	9.4 ♦	14	22	18	9.4 M	9.9	5.8	7.44	5.55 J	10.7
n - butylbenzene	5	3.8	3.6	4.4	7.8	3.8	U	3.1 J	2 ♦	1.5 ♦	1.8 ♦	1.5	3.6 M	3.8	3.3 J	4.2	2	1.8	1.26 J	1.59
methylene chloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.37 F	U
methyl ethyl ketone	5	U	U	U	U	U	1.6 UJ	U	U	U	Ü	U			U	U	U	U	U	U
n-propylbenzene	5	8.3	10 ♦	11	9.5	6.8	4.6	9.4	2.7 ♦	3.7 ♦	6 ♦	6.8	16	18	9.3 M	4.4	4.4	4.18	3.36 J	8.17
toluene	5	U	U	U	0.22 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2 - dichloropropane	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
napthalene	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.21 F	U	U	U	0.7 F	U
Total VOCs		39.2	32.18	36.9	36.57	37.08	15.02	31.1	11.46	15.94	23.9	31.2	57.6	56.31	32.37	33.2	18.79	18.99	16.95	30.28
SVOCs (µg/L)																				
2-methylnaphthalene		8	10	11	4	11	10	3	10	7 F ◆	6 F ♦	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4-dichlorophenol	1*	U	U	5 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4-dinitrophenol	1*	U	U	13 M	U	U	11 UJ	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,5-trichlorophenol	1*	U	U	3 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4,6-dinitro-2-methylphenol	1*	U	U	18 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4-nitrophenol	1*	U	U	4 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,6-trichlorophenol	1*	U	U	4 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
napthalene	10	U	U	U	U	U	U	4	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
phenanthrene	50	U	U	U	U	U	U	2	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
pyrene	50	U	U	U	U	U	U	2	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
di-n-octyl phthalate	50	U	U	3 F	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Total SVOCs		8	10	14	4	11	10	11	10	7	6	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)																				
nitrate	10000	N/A	U	U	U	U	0.056	U	U	U	0.1 ♦	0.052	U	0.31	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	N/A	U	11.1	2.9 B	7.9	11.4 B	U	13.2	21.6 ♦	10.1	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		N/A	U	U	U	U	U	U	U	U	0.091 F ◆	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		N/A	232 ♦	215	252	181	260	252	227 ♦	487	161 B ♦	222	191	224 ♦	201	N/S	178	250	250	N/S
Field Parameters																				4
dissolved iron (mg/L)	-	N/A	6	N/A	6.8	3.5	2.4	5.6	2.8	N/A	4.4	5	5	4.2	1.8	3.2	4.5	3.2	4	2.6
pH		7.5	7.05	7.96	6.91	6.92	9.9	7.09	6.85	8.78	6.74	6.8	6.65	6.49	8	7.4	7.02	7.3	47.57	7.27
specific conductance (µS/cm)		1020	437	668	821	674	471	519	582	767	66	83	79	63	90	86.7	0.169	140	88.3	94.9
temperature (degrees C)		12.91	10.5	10.7	13.1	12.5	10.3	10.78	12.22	12.9	9.38	10.4	13.1	12.2	10.2	10.6	11	14.1	10.2	10.18
dissolved oxygen (mg/L)		5.06	3.55	0.62	1.16	5.55	3.71	4.46	5.24	4.36	3.5	3.9	2.65	7.29	6.78	3.19	6.82	0.7	0	9.73
oxidation reduction potential (mV)		-124	-117	-135	-16	-105	-120	-142	-136	-135	-63	-99	-106	-131	-113	-72	-92	-122	-109	-123

- Notes:

 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000

 Indicates higher value detected in the sample duplicate or during the dilution phase.

 Sum of total phenolic compounds may not exceed 1 (µg/L)

 Indicates no NYS GA Groundwater Standard

 B The analyte was also detected in a blank.

 F Analyte was positively identified but the associated numerical value is below the reporting limit

 M. Matrist effort mesent

- M Matrix effect present N/A Analyte was not analyzed during sampling

- NS- Analyte was not sampled.

 R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.

 U The analyte was analyzed fire, but not detected. The associated numerical value is at or below the method detection limit.

Table 3-2
Tank Farms 1 and 3 Detected Applytical Possilis (continued)

							Tank F	arms 1 and 3 De	tected Analytical	Results (continue										
Monitoring Well ID	NYSDEC										TF3MW-1									
Sample ID	GW					TF3M11712DA											TF3M11713OA		TF3M11713RA	TF3M11710SA
Date of Collection	Standards ¹	12/13/01	2/27/02	6/18/02	9/13/02	12/12/2002	3/12/03	6/20/03	9/12/2003	12/12/2003	3/18/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/20/2007	3/21/2008
Sample Depth (ft)	(μg/L)	13	13	13	13	12	13	13	13	13	13	13	13	13	13	13	13	14	13	10
VOCs (ug/L)																				
1,1,2 -trichloroethane	1	U	U	0.42 M	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	5	U	U	U	U	U	0.25 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
benzene	1	0.29 F	0.35 F	U	0.28 F	0.31 F	U	0.28	0.24 F	U	0.26 F	U	U	U	U	U	U	0.12	0.11 F	U
bromomethane	5	U	U	U	U	U	0.19 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	0.38 F	U	0.41 F	U	U	U
chloromethane	5	U	U	U	U	0.21 F	U	U	U	U	U	U	U	U	0.49 F	U	0.4 F	U	U	U
sec-butylbenzene	5	1.9	1.6	1.4	2.8	1.9	U	6.1	2.4	5.6	2.1	4.8	6.4	U	U	0.95 F	0.86 F	0.55	0.93 F	U
t-butylbenzene	5	1	2.5	2.6	2	2.1	2.2	2	2.7	1.9	2.8	2.9	2.8	U	2	2.2	1.8	1.36	2.14	1.72
methylene chloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.3 F	U
cis-1,2-dichloroethylene	5	0.4 F	0.29 F	U	U	U	0.36 F	0.22 F	U	0.48 F	0.33 F	U	U	U	U	U	0.34 F	0.2	0.15 F	0.19 F
isopropylbenzene	5	2	0.52	1.1	4.7	1.1	0.8	7.7	2.9	6.1	2.9	6.4	12	5.9	3.9	1.1	0.73 F	0.15	2.19	0.78 F
p-isopropyltoluene	5	1.8	4.5	U	U	U	3.8	U	5.5	U	5.2	6	5.5	U	U	U	U	U	U	U
n-butylbenzene	5	U	U	U	U	U	U	U	U	U	U	U	U	0.48 F	U	U	U	U	U	U
n-propylbenzene	5	0.32 F	U	U	0.52	U	U	0.83 F	0.37 F	2.5	0.39 F	2.5	5.2	3.7	0.66 F	U	U	U	U	U
Total VOCs		7.71	9.76	5.1	10.3	5.62	7.16	17.13	14.11	16.58	13.98	22.6	31.9	10.08	7.43	4.25	4.95	2.38	5.82	2.69
SVOCs (µg/L)																				
2,4-dichlorophenol	1*	U	U	4 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4-dinitrophenol	1*	U	U	12 M	U	U	11UJ	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,5-trichlorophenol	1*	U	U	3 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4,6-dinitro-2-methylphenol	1*	U	U	16 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
4-nitrophenol	1*	U	U	3 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2,4,6-trichlorophenol	1*	U	U	4 M	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
benzoic acid		U	U	U	U	U	13 UJ	17 R	7 R	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)																				
nitrate	10000	N/A	0.064	U	U	U	U	U	U	0.061	0.11	0.069	2.5	0.67	0.29	N/S	N/S	N/S	N/S	N/S
sulfate	250000	N/A	U	7.7	6.2 B	3.2	5.8 B	83.4	U	6.3	1.3	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		N/A	U	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		N/A	298	274	312	206	251	264	307	445	336	316	269	244	237	N/S	224	280	200	N/S
Field Parameters																				
dissolved iron (mg/L)		N/A	6	N/A	6.2	5.6	4.6	4.9	4	3.3	4.2	4.4	3.6	3.2	3.5	3	4.2	4	3.8	3.2
pH		7.57	6.87	7.82	6.92	6.84	9.58	6.93	6.98	8.63	6.82	6.64	6.78	6.45	7.87	7.41	7.06	7.14	6.4	7.18
specific conductance (µS/cm)		1340	1190	1840	1620	1330	158	209	180	179	13	95	82	80	98	133	14	16	78.4	0.122
temperature (degrees C)		13.71	10	11	14.8	13.4	9.5	10.72	14.03	13.88	8.81	10.7	15	12	8.8	9.5	11.7	15.7	9.4	8.76
dissolved oxygen (mg/L)		4.31	4.19	6.93	1.39	3.55	5.35	4.13	5.53	6.71	4.9	2.5	4.42	9.22	5.46	4.78	7.47	0.51	3.05	1.12
oxidation reduction potential (mV)	-93	-98	-123	88	-102	-102	-119	-141	-112	-68	-53	-97	-122	-94	-10	-85	-113	-70	-96

- Notes:

 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000

 Indicates no NYS GA Groundwater Standard

 * Sum of total phenolic compounds may not exceed 1 (µg/L)

 B The analyte was also detected in a blank.

 F Analyte was positively identified but the associated numerical value is below the reporting limit

 N/A Analyte was not analyzed during sampling

- N/S- Analyte was not sampled.
- M Matrix effect present
- R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
- UJ The analyte was not detected above the RL. However the quantitation is an approximation.

Table 3-2 Tank Farms 1 and 3 Detected Analytical Results (continued)

												Analytical Results (ls (November 2001		oment Wells (Cor	stombon 2004)											
Monitoring Well ID	NYSDEC	TF	3MW-118	1	F3MW-119				TF3N	fW-119R	a Monitoring Wei	is (November 2001) Including Kepiac		3MW-120		TF	3MW-121				TF3MW	-121R			
Sample ID		FF3M11810AA	TF3M11810AA	F3M11913A	ATF3M11913AA	TF3M119R12KB	TF3M119R12LE	TF3M119R13MA	TF3M119R12N/	TF3M119R12OA	TF3M119R12PA	TF3M119R11RA	TF3M119R11RA	TF3M12010AA	TF3M12010AA	TF3?		TF3M12110AA	TF3M121R12KB	TF3M121R12LB	TF3M121R12MA	TF3M121R12NA	TF3M121R12OA	TF3M121R12PA	TF3M121R11RA	TF3M121R11RA
Date of Collection	Standards ⁴	12/13/2001	2/27/2002	12/13/2001	2/27/2002	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/27/2007	4/8/2008	12/13/2001	2/27/2002	12	/20/2001	2/27/2002	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/27/2007	3/20/2008
Sample Depth (ft)	(µg/L)	10	10	13	13	12	12	13	12	12	12	11	11	11	11		11	11	12	12	12	12	12	12	11	11
VOCs (ug/L)																										
1,1-dichloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	0.23 F	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5	U	U	U	U	U	U	U	U	U	U	U	U	4.1	U		U	1.4	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5	U	U	U	U	U	U	U	U	U	U	2.85 F	U	1.2	U		U	0.54	U	U	U	U	U	U	U	U
t-butylbenzene	5	0.6 F	0.54	1.2	0.41 F	1.4 F	U	U	0.5 F◆	0.5 F ◆	U	0.34 F	U	0.3 F	U		U	0.43 F	U	U	U	U	U	U	0.13 F	U
ethylbenzene	5	U	U	U	U	U	U	U	U	U	U	U	U	0.56 F	U		U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5	6.8	0.21 F	2.3	8.5	6.3	U	U	Ü	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U
n-butylbenzene	5	U	U	0.53 F 1.4	U 0.43 F	U 1.9 F	U	U	Ü	U	U	U	U	U	U		U	U	U	Ü	U	U	U	U	U	U
sec-butylbenzene	5	0.36 F 0.33 F	0.28 F	0.24 F	0.43 F 0.57		U	U	Ü	U	U II	U	II.	0.24 F	U		U	U	U	II	II.	Ü	II.	v	II.	
n-propylbenzene naphthalene	10	0.33 F	U	U.24 F	0.57	U	U	U	U	0.2 F ◆	U	U	U	0.24 F	U		U	U	U	U	Ü	U	U	U	U	U
acetone	50	U	U	U	U U	U	U II	U	30 B	0.2 F •	II.	U U	U	U II	U		U	U	51F	II II	U	II.	U	U	U	U
chlorobenzene	50	U	U	U	U	1.8 F	U	U II	30 B	II	U	U	II.	U	Ü		U	U	3.1 F	U	U	U	II.	Ü	II.	U
chloroethane	5	II.	U	U	U II	1.8 F	II.	Ü	U	0.7 F	II.	U	U	U	Ü	_	U	II.	II.	U	U	U	II.	Ü	U	U
chloroform	5	Ü	U 2	Ü	Ü	9 U	II.	U	Ü	U.7 F	Ü	Ü	Ü	II.	0.29 F		0.49 F	II n	0.29 F	U	II.	II .	Ŭ	Ü	II	Ü
cis-1.2-dichloroethylene	5	ŭ	i i	Ŭ	ŭ	2.9 F	Ĭ	Ŭ	ŭ	Ü	Ü	Ü	Ü	ŭ	U.Z.) I	8 -	11	<u> </u>	11	Ü	Ü	Ü	ŭ	Ü	Ü	Ŭ
toluene	5	II.	<u> </u>	Ü	Ü	2 - I	II.	U	Ü	Ü	Ü	Ü	Ü	3.8	Ü	F =	U	U 2	U	U	Ü	Ü	Ü	Ü	Ü	Ü
trichloroethylene	5	Ŭ	0.44 F	0.31 F	Ü	. U	Ü	Ü	0.38 F	0.26 F	1.2	0.65 F	Ü	11	2.8	i =	2.5	ii 8	2.6	1.8	1.6	1.5	1.6	1.2	0.88 F	1.18
o-xylene	5	Ŭ	U.441	U	Ü	ž ŭ	Ü	Ü	U.Ju	U.ZUI	ii	U.U.	Ü	2.1	U	× -	U	i ž	II	II	II	II.	II	II	U.UU	Ü
m.pxylene	5	Ü	ŭ	Ü	Ŭ	4 ŭ	Ü	Ü	Ŭ	Ü	Ü	Ŭ	Ŭ	3.8	Ü	= =	Ü	0.46 F	Ü	Ŭ	Ü	Ŭ	Ü	Ü	Ü	Ŭ
Total VOCs		8.09	1.47	5.98	9.91	¥ 14.3	0	0	Ü	1.67	1.2	3.84	0	16.1	3.09	ě	2.99	3.06	7.99	1.8	1.6	1.5	1.6	1.2	1.01	0
SVOCs (µg/L)																÷ .		- Si								
4-nitrophenol		U	U	U	U	T U	U	U	U	U	U	N/S	N/S	U	U	š —	U	U g	N/S	N/S	U	U	U	U	N/S	N/S
anthracene	50	U	U	7 J	U	R N/S	N/S	U	U	U	U	N/S	N/S	U	U	8	U	U §	N/S	N/S	U	U	U	U	N/S	N/S
acenapthene	20	U	U	U	U	Ď U	U	U	U	U	0.56	N/S	N/S	U	U	ě	U	U	N/S	N/S	U	U	U	U	N/S	N/S
bis (2-chloroisopropyl) ethe	1.0	U	U	U	U	N/S	N/S	U	U	U	U	N/S	N/S	U	U	5	U	U	N/S	N/S	U	U	U	U	N/S	N/S
bis(2-ethylhexyl)phthalate	5	U	2	8 J	5	N/S	N/S	U	U	U	0.82	N/S	N/S	U	U	56	U	U	N/S	N/S	U	U	U	0.824	N/S	N/S
di-n-octyl phthalatı		8	U	U	U	E N/S	N/S	U	U	U	U	N/S	N/S	U	U	-E	U	U E	N/S	N/S	U	U	U	U	N/S	N/S
chrysene	0.002	U	U	8 J	3	N/S	N/S	U	U	U	U	N/S	N/S	U	U	š _	U	U	N/S	N/S	U	U	U	U	N/S	N/S
benzo(a)anthracene	0.002	U	U	8 J	3	N/S	N/S	U	U	U	U	N/S	N/S	U	U	<u>.</u>	U	U	N/S	N/S	U	U	U	U	N/S	N/S
benzo(b)fluoranthene	0.002	U	U >	7 J	U	N/S	N/S	U	U	U	U	N/S	N/S	U	U	^	U	U ^	N/S	N/S	U	U	U	U	N/S	N/S
benzo(a)pyrene	0.002	U	U	6 J	2	N/S	N/S	U	U	U	U	N/S	N/S	U	U		U	U	N/S	N/S	U	U	U	U	N/S	N/S
flouranthene	50	U	U	8 J 7 J	8	N/S N/S	N/S N/S	U	Ü	0.6 F	0.7	N/S N/S	N/S N/S	U	U		U	U	N/S N/S	N/S	U	U	U	U	N/S N/S	N/S N/S
phenanthrene	50	U		7.1	8	N/S N/S	N/S N/S	U	Ü	0.7 F	0.66	N/S N/S	N/S N/S	U	U		U	U	N/S N/S	N/S N/S		Ü	i i	U	N/S N/S	N/S N/S
pyrene Total SVOCs	50	8	U	0	26	N/S	N/S	U	0	1.3	4.12	N/S	N/S	0	0		0	0	N/S	N/S	U	U	0	U 0.57	N/S	N/S
Wet Chemistry Data (mg/L)			2		20	14/3	14/3	0	0	1.3	4.12	10.3	14/3	0	0		0	0	18/3	19/3	0	0		0.57	14/3	10.3
nitrate	10000	N/S	0.16	N/S	- 11	U	- 11	- 11	N/S	N/S	N/S	N/S	N/S	N/S	0.37		N/S	0.054	1.2	1.4	1	N/S	N/S	N/S	N/S	N/S
sulfate	250000	N/S	U	N/S	Ü	Ü	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	U		N/S	U.054	N/S							
sulfide	230000	N/S	Ü	N/S	Ü	II.	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	Ü		N/S	II.	N/S							
total alkalinity		N/S	90.8	N/S	176	127	97.7	163	N/S	159	210	190	N/S	N/S	233		N/S	232	156	202	144	N/S	203	0	260	N/S
Field Parameters	-		7.0.0	1415		127	. 1.1	.05	.00		-10	.70	.00						150	202		.4/5	203		200	
dissolved iron (mg/L)		N/A	0	N/A	2	0	1.2	2.5	0	0.7	0.6	1	2.5	N/A	0		N/A	0	0	0	0	0	0.8	0	0.1	0.4
pH		6.79	6.61	7.64	7.12	7.14	6.74	7.65	6.82	7.33	6.52	7.27	7.11	7.76	7.13		7.71	7.12	6.95	6.61	7.25	7.34	7.34	7.06	7.14	7.04
specific conductance (uS/cm)		242	1520	815	794	0.14 *	0.18 *	0.2 *	149	0.133 *	0.120 *	0.139 *	0.15 *	1030	601		819	743	0.13 *	0.13 *	97.5	154	0.134 *	0.13 *	0.134 *	0.12 *
temperature (degrees C)		14.62	7.4	14.88	11.3	16	13.9	10.1	11.1	14.1	16.8	10.9	10.5	15.5	12		16.07	12.6	15.7	14	11.6	12.3	17.6	18.4	12.1	13.6
dissolved oxygen (mg/L)		6.71	4.44	6.09	3.34	5.6	6.9	4.13	3.7	9.19	1.65	1.67	4.2	3.6	3.2		5.62	4.02	4.78	8.29	4.31	5.78	5.17	0	9.44	5.06
oxidation reduction potential (mV)		-79	-40	-87	-94	47	-95	-46	299	-53	-22	-73	73	-62	-94		179	83	101	64	128	290	63	29	71	215
Notes:			•		•																					

proclation reduction potential (m(Y) = -y9 - 400 - 457

Note:

1 - Genout-user Standards are from Technical and Operational Guidance Series (TOGS) 1.11, June 1998. Amended in April 2000

*- specific conductance in mensured in Sim.

— Inducties in NYS GA Genout-hours Thumbard

— Inducties in NYS GA Genout-hours Thumbard

— Inducties in NYS GA Genout-hours Thumbard

— Induction in

Table 3-2 Tank Farms 1 and 3 Detected Analytical Results (continued)

In a second second							Tank Far	ms 1 and 3 Detec	ted Analytical Res	ults (continued)										
Monitoring Well ID	NYSDEC	TE2341221244	TE2341221244	TE23412212DD	TE23412212C4	TF3M12313DA	TF3M12313EA	TE2M12212E4	TF3M12313GB	TE2M12212HD	TF3MW-123	TF3MW12313JB	TF3M12313KB	TF3M12313LB	TE2M12212MA	TF3M12313NB	TF3M12314OA	TE2M12214DA	TF3M12313RA	TF3M12313SA
Sample ID Date of Collection	Standards ¹					1F3M12313DA 12/12/02	3/12/03	6/23/03	9/12/2003	12/12/2003	3/18/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/21/2007	3/20/2008
	-	12/13/01	2/26/02	6/19/02	9/13/02		3/12/03	13	13			13	13	13			14			13
Sample Depth (ft)	(µg/L)	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	14	14	13	13
VOCs (ug/L)				U	0.9 M					U	**		**	U	**					
1,2,3-trichlorobenzene	5	U	U		015 114	U	U	U	U		U	U	U		U	U	U	U	U	U
1,2,4-trimethylbenzene	5	350 ♦	88 ♦	46 ♦	78 M◆	28	31 ♦	60	72	37	54	45	66	28	19	8.1	5.5 ♦	22.5	23.7	11.4
1,1,2-trichloroethylene	5	U	U	U	2.6	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5	26 ♦	10	6.1 ♦	12	4	4.1	8.9	9.9	4.9	7.1	7	10	4.4	2.7 F	1.5 F	0.88 F	3.88	3.9	2.94
1,2-dibromo-3-chloropropane	0.04	5.6	U	1.4 ♦	U	.5 UJ	0.5 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.37 F	U	U	U
benzene	1	0.38 F	0.32 F	U	U	0.25 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5	U	U	U	U	0.29 F	U	U	U	U	U	U	U	U	U	0.72 F	0.69 F	U	U	U
chloromethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.68 F	U	U	U
t-butylbenzene	5	8.2 ♦	2.5	1.4	3.9 M	1.3	1.2 ♦	U	2.2	U	U	1.5 F	2.1 F	1 F	0.96 F	0.89 F	0.77 F	1.42	0.96 F	1 F
isopropylbenzene	5	480 ♦	140 ♦	73 ♦	130 M◆	53	62 J ♦	120	130	63	110	85	120	56	51	62	41 J	67.9	70.3	63.9
n-butylbenzene	5	20 ♦	4.7	2.1 ♦	U	U	U	U	5.2	U	U	1.4 F	1.9 F	0.9 F	1.2 F	U	U	1.44	0.54 F	2.2
ethylbenzene	5	2.4	1.7	0.95 ♦	U	0.33 F	U	U	U	U	U	U	U	U	U	U	U	0.17	0.26 F	U
methylene chloride	5	U	U	U	U	U	U	6.5 B	U	3 B	U	U	U	U	U	U	U	U	0.28 F	U
n-propylbenzene	5	63 ♦	16 ♦	10 ♦	15	U	6.4 J ♦	11	U	U	U	11	U	U	6.2	U	U	U	8	U
p-isopropyltoluene	5	21 ♦	6.4	3 ♦	5 ♦	2.4	1.9 ♦	U	4.6	1.2	U	2.6 F	3.7 F	1.6 F	1.4 F	0.84 F	0.46 F	1.82	1.12 F	1.92 F
sec-butylbenzene	5	22 ♦	6.1	2.7 ♦	5 ♦	2.5	2 •	2.7	4.8	1.4	U	2.8 F	4.3	2 F	1.6 F	1.2 F	0.79 F	1.52	1.4 F	1.84 F
n-propylbenzene	5	U	23	U	26	9.1	U	U	16	7	11	11	15	7.1	6.2	7.1	4.1 J	7.35	U	7.22
naphthalene	10	U	U	2.2 ♦	3.4	U	U	U	U	U	U	U	U	U	U	U	U	U	0.96 F	U
toluene	5	1.1	0.27 F	U	2	U	U	U	U	U	U	U	1 F	U	U	U	U	U	U	U
m,p-xylene	5	22 ♦	7	2.5 ♦	4.3	1.8	1.2	U	U	1.3 F	U	1.4 F	1.4 F	U	U	U	U	0.34	0.3 F	U
Total VOCs		1021.3	305.99	151.35	288.1	102.97	109.8	209.1	244.7	118.8	182.1	168.7	225.4	101	84.06	82.35	54.19	107.03	111.72	92.42
SVOCs (µg/L)																				
				•	•			1	not sampled at this l	ocation										
Wet Chemistry Data (mg/L)																				
nitrate	10000	N/A	0.8	U	U	U	0.063	U	U	0.29	0.06	U	0.12	0.04 F	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	N/A	U	11	4.7 B	4	9.3 B	25.5	17	6.3	4.4	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		N/A	U	U	U	U	U	U	U	U	0.06 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		N/A	202	156	204	150	160	159	167	352	222	202	186	205	188	N/S	156	200	200	N/S
Field Parameters																				
dissolved iron (mg/L)		N/A	4	N/A	3	2.8	1.9	2.8	2.2	NA	1.8	1	3	N/A	1.4	2.4	3.6	3	N/S	3
pH		7.75	6.94	7.89	7.14	6.73	9.9	7.03	7.16	8.76	7.12	6.99	6.57	6.6	7.81	7.46	7.26	7.33	7.65	6.92
specific conductance (µS/cm)		721	751	686	615	594	531	590	600	830	64	77	90	88	98	94.3	74.3	81	56.1	0.12
temperature (degrees C)		12.48	9.1	10.8	14.4	11.8	9	11.56	13.38	13.82	8.5	11.1	14.2	11.9	8.9	9.4	11.5	14.4	9.3	9
dissolved oxygen (mg/L)		3.98	3.29	0.86	1.05	4.02	4.24	3.89	4.8	4.58	2.3	4.8	7.32	8.02	4.99	4.36	6.08	3.09	3.22	8.77
oxidation reduction potential (mV)		-99	-84	-118	-19	-65	-109	-130	-128	-113	-67	-84	-71	-111	-90	176	-99	-108	-89	-69
27.																				

- Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
 When the guidance value or standard is below the method detection limit, ahieving the method detection limit is considered acceptable

- 2 When the guidance value or standard is below the method detection limit, alieving the method detection from entire the guidance value or standard

 Concentrations are from duplicate sample, which was greater than the original sample.

 Indicates no NYS GA Groundwater Standard

 B The analyte was also detected in a blank.

 F Analyte was positively identified but the associated numerical value is below the reporting limit

 Analyte was positively identified, quantitation is an approximation
- M Matrix effect present

- N1 Matrix effect present
 NS- Analyte was not analyzed during sampling
 NS- Analyte was not sampled.
 R The data is unusable due to deficiences in the ability to analyze the sample and meet QC criteria.
 U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
 UJ The analyte was not detected above the RL, however the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

				Tank Farms 1	and 3 Detected A	Analytical Results (· /				
Monitoring Well ID	NYSDEC						MW-124				
Sample ID	GW					TF3M12412DA			TF3M12413GB		TF3M12413II
Date of Collection	Standards ¹	12/13/01	2/25/02	6/18/02	9/13/02	12/12/2002	3/12/2003	6/19/2003	9/12/2003	12/12/2003	3/17/2004
Sample Depth (ft)	(µg/L)	13	13	13	14	12	13	13	13	13	13
VOCs (ug/L)											
1,2-dibromo-3-chloropropane	0.04	U	U	U	U	U	0.25 UJ	U	U	U	U
acetone	50	U	U	U	U	U	U	U	U	4.4 F	3.3 F
benzene	1	0.76 F	0.76	0.43 F	0.5	U	U	U	U	U	U
1-chlorohexane		U	U	U	U	U	U	0.14 M	0.14 M	U	U
1,2,3-trichloropropane	5	U	U	U	U	U	U	0.21 M	U	U	U
1,2,4-trimethylbenzene	5	U	U	U	U	U	U	0.23 M	U	U	U
1,3,5-trimethylbenzene	5	U	U	U	U	U	U	0.25 M	U	U	U
chloromethane	5	U	U	U	U	0.22 F	U	U	U	U	U
t-butylbenzene	5	0.45 F	0.3 F	U	U	U	U	U	U	U	U
bromodichloromethane	50	U	U	U	U	U	U	0.11 M	U	U	U
bromomethane	5	U	U	U	U	U	0.19 UJ	U	0.13 M	U	U
isopropylbenzene	5	2.3	0.23 F	U	U	U	U	U	U	U	U
p - isopropyltoluene	5	0.21 F	U	U	U	U	U	U	U	U	U
sec - butylbenzene	5	0.47 F	U	U	U	U	U	U	U	U	U
m,p-xylene	5	U	U	U	U	U	U	0.34 M	U	U	U
2-hexanone		U	U	11	U	U	U	U	U	U	U
toluene	5	U	U	U	U	U	U	0.17 M	U	U	U
trichloroethylene	5	0.52 F	0.57	0.59	0.61	0.48 F	0.62 J	0.33 F	U	0.6 F	0.55 F
styrene	5	U	U	U	U	U	U	0.12 M	U	U	U
tetrachloroethylene	5	U	U	U	U	U	U	U	0.18 M	U	U
trichlorofluoromethane	5	U	U	Ü	Ü	U	U	U	0.14 M	Ü	U
Total VOCs		4.71	1.86	12.02	1.11	0.7	0.62	1.9	0.59	5 F	3.85 F
SVOCs (µg/L)			-100	22.02	-1.5		0.02		0.02		
2,4,5-trichlorophenol	1*	U	U	3 M	U	U	3 UJ	U	U	U	U
2,4,6-trichlorophenol	1*	Ü	Ü	4 M	Ü	Ü	4 UJ	Ü	Ü	Ü	Ü
2,4-dichlorophenol	1*	U	U	5 M	Ü	U	4 UJ	U	Ü	Ü	U
2,4-dinitrophenol	1*	Ü	Ü	12 M	UJ	Ü	11 UJ	Ü	U	Ü	U
4,6-dinitro-2-methylphenol	1*	U	U	16 M	U	U	15 UJ	U	U	Ü	U
4-nitrophenol	1*	Ü	U	4 M	Ü	U	3 UJ	U	U	Ü	U
benzoic acid		U	U	U	U	U	13 UJ	17 R	17 R	Ü	U
isophorone	50	Ü	Ü	U	U	Ü	5 UJ	R	U	Ü	U
benzo(a)anthracene	1*	Ü	U	U	U	U	2 UJ	3 M	U	Ü	U
Wet Chemistry Data (mg/L)	•	Ü		Ü	Ü	Ü	200	J 111	Ü	Ü	
nitrate	10000	N/A	U	U	U	U	0.12	0.056	U	U	U
sulfate	250000	N/A	U	27.9	22 B	24.3	28.8 B	198	35.5	114	33.1 M
sulfide	230000	N/A	U	U	U	U U	U U	U	U	U	0.049 M
total alkalinity		N/A	165	132	160	116	150	129	148	154	167
Field Parameters		14/73	103	132	100	110	130	12)	140	134	107
dissolved iron (mg/L)		N/A	1.4	N/A	1.5	1.3	0.2	2.5	2	0.6	3.2
nH		7.98	7.31	7.96	7.12	6.79	10.15	7.17	7.29	7.2	7.19
specific conductance (µS/cm)		867	581	7.96	856	658	526	7.17	937	880	240
temperature (degrees C)		13.68	10.4	11.6	15.6	13.3	9.6	11.52	14.95	14.1	8.63
				0.63	15.6	3.98	9.6 4.61	3.9		8.17	2.6
dissolved oxygen (mg/L)		3.88	3.35 -90	-129			4.61 -107	-110	5.52 -128		-10
oxidation reduction potential (mV)		-73	-90	-129	4	-39	-107	-110	-128	-106	-10

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- 2 When the guidance value or standard is below the method detection limit, ahieving the method detection limit is considered acceptable for meeting the guidance value or standard
- * Sum of total phenolic compounds may not exceed 1 (µg/L)
- -- Indicates no NYS GA Groundwater Standard
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- M Matrix effect present
- $\ensuremath{N/A}$ Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
- UJ The analyte was not detected above the RL, however the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

N	NEGDE C	Tank ra	arms 1 and 3 Dec	ected Analytical I	,	1)		1	
Monitoring Well ID	NYSDEC		I	I	TF3MW-125	I	I	I	
Sample ID	GW			TF3M12514CA		TF3M12513EA	TF3M12513FA	TF3M12514GB	
Date of Collection	Standards ¹	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/2003	6/23/2003	9/2/2003	
Sample Depth (ft)	(μg/L)	13	13	14	13	13	13	14	
VOCs (ug/L)									
1,2-dichloropropane	1	U	U	U	U	.32 UJ	U	U	
1,2,4-trimethylbenzene	5	81 ♦	48 ♦	56 ♦	29	28	23	36	
1,3,5-trimethylbenzene	5	33 ♦	19	21 ♦	14	10 M	8.3	13	
benzene	1	0.36 F	U	U	U	0.30 UJ	U	U	
n-butylbenzene	5	U	2.3	3 J	U	0.44 UJ	U	U	
sec-butylbenzene	5	2.7 ♦	2	2.6 ♦	1.4	1.8 M	U	U	
t-butylbenzene	5	1.6 ♦	0.98	1.3 ♦	0.9	0.92 J	U	U	
chloroethane	5	U	U	0.63	U	0.32 UJ	U	U	
chloromethane	5	U	U	0.66	U	0.28 UJ	U	U	-
ethylbenzene	5	94 ♦	82 ♦	90 ♦	53	61 M	51	62	2003
isopropylbenzene	5	80 ♦	62 ♦	85 ♦	40	50 M	37	43	
p-isopropyltoluene	5	4.2 ♦	2.9 ♦	3.6	U	2.1 M	U	U	ber
methylene chloride	5	U	U	U	U	0.5	7 B	8.5	lii.
methyl ethyl ketone	5	U	U	U	U	3.1 UJ	U	U	pte
n-propylbenzene	5	14	15	18 ♦	9.5	11 M	7.8	11	Se
naphthalene	10	U	11	14 ♦	7.8	10 J	6.8	9.1	in
toluene	5	1.1 ♦	0.86	1.1 ♦	U	0.54 M	U	U	pəı
o-xylene	5	2.5	1.1	1.4 ♦	0.87	0.78 M	U	U	ior
m,p-xylene	5	89 ♦	47 ♦	42 ♦	26	28 J	26	37	uiss
Total VOCs		403.46	294.14	337.29	182.47	204.64	159.9	219.6	00
SVOCs (µg/L)									qec
bis-(2-ethylhexyl) phthalate	5	5 F	U	U	U	U	U	U	Monitoring well decomissioned in September
benzoic acid		U	U	U	U	U	17 R	18 R	A
naphthalene	10	4 F	U	U	6 F	6 F	4 F	6 F	iig
phenanthrene	50	U	U	U	U	3 F	U	U	tor
pyrene	50	3 F	U	U	U	U	U	U	ii
2-methylnaphthalene		U	U	U	U	5 F	2 F	2 F	M
bis (2-etylhexyl) phthalate	5	U	U	U	U	4 M	U	U	
Total SVOCs		12	0	0	6	18	6	8	
Wet Chemistry Data (mg/L)									
nitrate	10000	U	U	U	N/A	U	U	U	
sulfate	250000	U	5.4	5.2 B	2.7	10.9 B	39.7	4.3	
sulfide		U	U	U	U	1 M	U	U	
total alkalinity		106	97.6	137	96.3	143	116	116	
Field Parameters						-			
dissolved iron (mg/L)		3.5	N/A	5.6	4.4	2.8	3.5	N/S	
pH		6.64	6.55	6.9	6.87	6.84	6.8	N/S	
specific conductance (µS/cm)		380	403	422	481	391	228	N/S	
temperature (degrees C)		9.6	9.9	13	12.8	9.38	9.99	N/S	
dissolved oxygen (mg/L)		4.90	3.87	1.09	2.88	4.51	3.56	N/S	
oxidation reduction potential (mV)		-50	-83	-22	-112	-3	-132	N/S	
omandon reduction potential (III v)	1		0.5		112		132	14/15	

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- 2 When the guidance value or standard is below the method detection limit, ahieving the method detection limit is considered acceptable for meeting the guidance value or standard
- ♦ Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- B The analyte was also detected in a blank
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- J Analyte was positively identified, quantitation is an approximation
- N/A Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- $\label{eq:continuous} U\mbox{ The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.}$
- UJ The analyte was not detected above the RL. However the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

		Tank Farms 1 and 3 Detected Analytical Results (continued) NYSDEC TF3MW-126																	
Monitoring Well ID	NYSDEC																		
Sample ID	GW .		TF3M112613BB					TF3M12614GB						TF3M12613MA					
Date of Collection	Standards	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/03	6/20/03	9/12/2003	12/12/2003	3/18/2004	6/17/2004	9/13/2004	1/3/2005	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/21/2007	3/20/2008
Sample Depth (ft)	(μg/L)	13	13	14	12	13	13	14	12	13	13	13	13	13	13	14	14	13	13
VOCs (ug/L)																			
1,2-dichloropropane	1	U	U	0.42 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1-2-dichloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	0.26 F	U	U	U	U	U
1,2,4-trimethylbenzene	5	0.55	U	1.6	U	U	U	U	U	U	0.39 F	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-trichlorethane	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3.24	U
cis-1,2-dichloroethylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.15 F	U
acetone	50	U	U	U	U	U	U	U	5.7 F	U	U	U	U	U	U	U	U	U	U
benzene	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
n-butylbenzene	5	7.8	4.7	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.17 F	U
sec-butylbenzene	5	11	6.5	6	2.4	2.4	1.9 J ♦	1.8	1.1	1.4	2	1.2	0.77 F	U	2.4	4.4	5.33	1.18 J	1.97
Trichloroethylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
t-butylbenzene	5	2.5	1.5	1.5	1.4	0.88	0.6 F ♦	1.2	1.4	1.1	1.6	1.5	0.96 F	0.87 F	1.4	2.4	1.58	0.75 F	0.610 F
Tetrachloroethylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	0.29 F	U	0.62 F	U	U	U
chloromethane	5	U	U	U	0.26 F	U	U	U	U	U	U	U	U	0.33 F	U	0.69 F	U	U	U
ethylbenzene	5	U	0.37 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5	11	4.2	8.1	3.1	U	0.35 F ◆	1.6	1	1.1	3	0.39 F	1	0.86 F	0.31 F	9.6	6.28	U	U
p-isopropyltoluene	5	1	0.38 F	0.31 F	0.3 F	U	U	U	U	2.5	U	3.2	U	U	U	U	U	U	U
methylene chloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.12 F	U
methyl ethyl ketone	5	U	U	U	U	1.6 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5	18	2.9	6.9	1	0.99	0.33 F ◆	0.77 F	0.49 F	0.83 F	0.8 F	U	U	0.25 F	U	1.4	5.81	U	U
naphthalene	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.22 F	U	0.52 F	U
toluene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs		51.85	20.55	24.41	8.46	4.27	3.18	5.37	9.69	6.93	7.79	6.29	2.73	2.86	4.11	19.33	19	6.13	2.58
SVOCs (µg/L)																			
benzoic acid		U	U	U	U	U	17 R	17 R	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
2-methylnaphthalene		12	U	10	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)																			
nitrate	10000	U	U	U	N/A	U	U	U	U	0.58	0.18	0.065	0.67	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	U	13.8	4.9 B	8.9	16.8 B	50	9.2	35.4	22.7	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		U	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		267	220	233	182	233	241	243	400	308	275	218	271	243	N/S	217	260	300	N/S
Field Parameters					_					_									
dissolved iron (mg/L)		3.5	N/A	5.4	6	3.4	4.4	2.5	1.8	2	3.2	4.8	2.3	2.8	3.5	4.8	2.6	4.5	2
pH		7.12	6.64	6.74	6.94	6.9	7.15	7.17	6.7	6.95	7.11	6.88	7.48	7.65	7.18	7.5	7.28	7.67	6.28
specific conductance (μS/cm)		451	479	660	590	509	414	581	686	68	58	59	65.8	70.4	99	88	87	70.6	69
temperature (degrees C)		10	9.8	13.2	12.7	9.6	10.11	13.32	12.52	8.5	9.9	13.4	11.3	9.3	8.77	10.4	14.4	9.4	9.2
dissolved oxygen (mg/L)		5.18	3.51	1.13	2.18	4.5	3.75	3.54	0.9	4.8	2.9	6.08	8.82	4.44	3.33	2.92	3	8.7	5.33
oxidation reduction potential (mV)		-84	-91	-8	-118	-30	-125	-152	-122	-70	-104	-100	-10	-102	-122	-57	-121	-100	-31
Notes:																			

- Notes:

 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- 2 When the guidance value or standard is below the method detection limit, anieving the method detection limit is considered acceptable
- for meeting the guidance value or standard
- Indicates higher value detected in the sample duplicate or during the dilution phase.
 Indicates no NYS GA Groundwater Standard
 B The analyte was also detected in a blank.
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- J Analyte was positively identified, quantitation is an approximation
- N/A Analyte was not analyzed during sampling
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
- UJ The analyte was not detected above the RL. However the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analyti

	NINGERE	Tank Farms 1 and 3 Detected Analytical Results (continued) TF3MW-127																	
Monitoring Well ID	NYSDEC		mpas reame ann		mmas reames and	TTT 23 54 25 4 25 4	mpas reaments	mras reasers on	mras reame aven			TENNE STATES AND THE	meas reament n	TT 23 54 2 54 2 5 5 5	mmax // Am/ ax/ .	TT 23 54 254 2 C .	mpas reamean.	mmax #44#44m :	TTT03 54 0 54 0 5
Sample ID	GW					TF3M12713EA			TF3M12713HB			TF3M12713KB							
Date of Collection	Standards	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/2003	6/20/2003	9/12/2003	12/12/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/21/2007	3/20/2008
Sample Depth (ft)	(μg/L)	13	13	14	12	13	13	13	13	13	13	13	13	13	13	13	13	13	12
VOCs (ug/L)																			
1,2,4-trimethylbenzene	5	180 ♦	16	190 ♦	14	15	5.6	56 J	56	21	72	43	70	6.2	28	15	101	59.6	14.5
1,3,5-trimethylbenzene	5	66 ♦	6.6	74 ♦	7.9	6.3	2.5	30	20	7.1	0.83 F	13	U	2.9	9.2	U	U	U	U
benzene	1	2.6	0.94	5.7	1.3	0.54	2.2	5.2	2.1	2.9	4.2	3.3	2.2	0.97	1.7	1.4	3.05	0.94 F	0.73
n-butylbenzene	5	9	1.2	U	U	U	U	3.5	U	U	0.87 F	0.64 F	0.49 F	0.41 F	0.26 F	U	1.56	0.74 F	U
sec-butylbenzene	5	12	2.1	15 ♦	2.7	1.5	1.3	6.7	5.1	2.7	3.2	2.7	1.7 F	1.2	0.87 F	1.4	3.7 ♦	2.48 J	0.26 F
t-butylbenzene	5	1.7	0.24 F	1.7 ♦	0.34 F	U	U	0.87 F	0.52 F	0.26 F	0.87 F	U	U	U	U	U	U	0.32 F	U
chloroethane	5	U	U	0.44 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5	U	U	0.47 F	U	U	U	U	U	U	U	U	U	U	U	0.22 F	U	U	U
ethylbenzene	5	81	15	120 B	20	35	12	41 J	47	25	50	26	30	5.2	16	17	47.8	23.2	15.6
isopropylbenzene	5	37	5.9	67 ♦	8.7	7.6	3.1	24	18	8.6	18	10	10	3.6	6.5	9.9	25.5	U	3.79
p-isopropyltoluene	5	14	1.3	11	1.2	0.56	U	2.5	1.7	0.48 F	1.7 F	0.89 F	0.74 F	0.34 F	0.60 F	0.66 F	3.9 ♦	1.08 F	0.4 F
methyl ethyl ketone	5	U	U	U	U	1.6 UJ	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5	48	7.3	80 ♦	9.6	7.1	3.1	28	20	7.7	19	11	10	3.9	6.5	9.8	27.5	15.3 J	3.39
naphthalene	10	U	5.1	44	7.6 J	8.5	2.2	22	19	8.2	19	12	12	2.6	7.2	7.9 B	25.8	12.3	3.83
trichloroethylene	5	0.54	0.44 F	0.26 F	0.49 F	0.43 F	U	0.23 F	U	U	U	U	U	U	0.28 F	U	U	U	0.13 F
m,p-xylene	5	45	7	49	7.7	20	4.6	45	40	18	41	24	25	2.7	11	8.3	31.6	14.6	12.3
methylene chloride	5	U	U	U	U	U	U	U	0.8 F	U	2.2	0.53 F	U	U	U	U	U	0.44 F	U
Total VOCs		451.84	62.12	659.77	73.83	82.53	36.6	220	230.22	101.94	230.67	147.06	162.13	30.02	77.11	71.5	271.41	131	54.93
SVOCs (µg/L) MCL ²																			
2-methylnaphthalene		35	23	140	9 F	8 F	3 F	9 F	2 F	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)																			
nitrate	10000	0.11	U	U	N/A	U	0.055	U	0.15	0.83	0.36	0.13	0.36	0.24	N/S	N/S	N/S	N/S	N/S
sulfate	250000	U	24.8	14.8	11.5	10.6 B	14.2	21	21.6	24.8	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		U	U	U	U	U	U	U	U	0.061 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		284	218	268	214	252	253	231	389	233 B	341	246	314	298	N/S	217	380	310	N/S
Field Parameters																			
dissolved iron (mg/L)		3.2	N/A	6.5	3.5	2	1.8	4	2.5	2	2.8	1	2	1.8	0.5	3.7	4.2	1.9	0
pH		6.81	7.85	6.56	7.03	7.08	7.15	7.07	6.44	7.07	6.99	7.59	6.24	6.82	6.93	7.15	7.27	7.28	6.95
specific conductance (µS/cm)		524	752	839	566	451	353	517	543	76	81	68.8	71	74	95.6	112	82	84.3	77
temperature (degrees C)		9.6	10.2	13.3	11.5	8.3	9.37	13.22	11.69	7.79	9.9	13.2	10.4	8.4	8.57	10.6	13.5	8.9	8.41
dissolved oxygen (mg/L)		3.55	0.8	1.2	2.66	4.88	4.02	6.28	3.41	4.1	2.9	4.59	8.11	6.87	5.22	2.86	5.12	2.75	3.12
oxidation reduction potential (mV)		-90	-111	6	-99	52	-89	-129	-73	-21	-70	-38	-51	75	-50	118	23	18	243
* * * * * * * * * * * * * * * * * * * *																			

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- * Sum of total phenolic compounds may not exceed 1 (µg/L)
- Concentrations are from duplicate sample or dilution, which was greater than the original sample
 Indicates no NYS GA Groundwater Standard
 B The analyte was also detected in a blank.

- F Analyte was positively identified but the associated numerical value is below the reporting limit
- J Analyte was positively identified, quantitation is an approximation N/A - Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

 UJ The analyte was not detected above the RL, however the quantitation is an approximation.

Table 3-2

		Tank Farms 1 and 3 Detected Analytical Results (continued) FF3MW-128																	
Monitoring Well ID	NYSDEC						,		,			,						,	
Sample ID	GW				TF3M12813DA									TF3M12814MA		TF3M12814OA	TF3M12814PA	TF3M12813RA	
Date of Collection	Standards ¹	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/2003	6/20/2003	9/11/2003	12/12/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/26/2006	3/21/2007	3/21/2008
Sample Depth (ft)	(μg/L)	13	13	14	13	14	13	14	13	13	14	13	14	14	14	14	14	13	13
VOCs (ug/L)																			
1,2,4-trimethylbenzene	5	140 ♦	98 ♦	53	33	31	60 ♦	44	24	16	32	20	8.3	25	17	8	4.25	5.61	0.64 F
1,3,5-trimethylbenzene	5	54	39 ♦	23	14	10	24 ♦	18	7.9	5.5	12	6.7	2.7	11	9.8	U	U	U	U
acetone	50	U	U	U	U	U	U	U	3.4 F	U	U	U	U	U	U	U	U	U	U
benzene	1	4.2	2.2 ♦	3.3	1.4	0.62	0.99 ♦	1.4	0.42 F	0.63	0.8	0.42 F	.25 F	1.2	0.9	0.85	0.33	0.98	U
n-butylbenzene	5	6	3.6	U	U	U	U	3	0.89 F	U	0.74 F	0.59 F	U	1.8	1.2	2	U	1.59 J	U
sec-butylbenzene	5	9.3	6.8	6	3.1	2	4.5 ♦	3.8	1.2	1.4	2.2	1.5	0.44 F	3.4	3.2	3.4	0.89	4.36 J	U
t-butylbenzene	5	1.2	0.75	0.8	0.42 F	0.24 F	0.3 F	0.47 F	U	U	0.3 F	U	U	0.34 F	0.38 F	0.4 F	U	0.5 F	U
chloroethane	5	U	U	0.29 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5	U	U	0.31 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5	98 ♦	58 ♦	54 B	19	12	22 ♦	21	9.1	10	15	8.6	5.5	17	14	14	6.5	14.9	0.63 F
isopropylbenzene	5	32	21 ♦	24	9.3	5.5	10 ♦	9.8	3.9	4.7	7.3	3.9	2.1	9	7.4	7.7	2.05	9.07 J	0.39 F
p-isopropyltoluene	5	40	17 ♦	19	9.8	3.9	5.6 ♦	3.8	1.2	2	5.3	2.4	0.75 F	5	2.1	2	0.86	1.67	U
methyl ethyl ketone	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5	41	30 ♦	30	13	7.3	16 ♦	14	5.4	5.2	9.6	5.5	2.5	12	10	10	2.49	13.2 J	0.26 F
naphthalene	10	U	23	30	9.9 J	5.4	9	8.3	3.1	4.8	6.5	3.4	2.4	7.4	6.5	6.4 B	3.04	7.36	0.68 F
toluene	5	1 •	0.5	0.36 F	0.23 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5	1.1	U	0.44 F	0.25 F	U	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5	82	47 ♦	32 B	14	11	21 ♦	20	9.4	8.4	14	8	4.2	12	9.9	7.2	4.37	4.2	0.38 F
methylene chloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.45 F	U
Total VOCs		427.8	346.85	276.5	127.4	88.96	173.39	147.57	69.91	58.63	105.74	61.01	29.14	105.14	82.38	61.95	24.78	63.89	2.98
SVOCs (µg/L) MCL ²																			
2-methylnaphthalene		24	17	12	U	4 F	6 F	8 F	U	5 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
benzo(a)anthracene	0.002	U	U	U	2 F	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
acenaphthene	20	8 F	U	5 F	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
anthracene	50	5 F	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
benzoic acid		U	U	U	U	13 UJ	17 R	18 R	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
dibenzofuran		4 F	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
flouranthene	50	6 F	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
flourene	50	6 F	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
naphthalene	10	26	15	17	6 F	4 F	5 F	7 F	U	4 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
phenanthrene	50	20	4 F	8 F	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
pyrene	50	4 F	U	3	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Total SVOCs		103	32	45	8 F	8 F	11 F	15 F	0	9 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	0	0
Wet Chemistry Data (mg/L)																			
nitrate	10000	U	U	U	N/A	0.73	0.32	U	0.074	0.19	U	U	0.59	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	12.9	6.1	5.8	31.8	9.3 B	25.8	6.1	4	2.6	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		U	U	U	U	U	U	U	U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		247	233	293	212	203	253	329	573	314 B	362	371	381	402	N/S	332	400	340	N/S
Field Parameters																			
dissolved iron (mg/L)		0.7	N/A	3.2	1.6	0	1.6	0.4	0.2	0.4	0.5	0	0	0.8	0	0	0	0.3	0
pH		7.29	7.74	7.13	7.05	7.34	7.05	7.09	5.83	6.8	6.72	7.21	6.3	6.86	6.92	6.93	7.43	7.12	6.96
specific conductance (µS/cm)	-	377	457	612	609	338	609	500	659	75	75	76.5	73	71	91.3	84	70	61.2	54.1
temperature (degrees C)		9.7	9.9	13.4	11.2	6.72	11.2	12.05	10.83	7.92	9.8	13.4	10.6	9	8.89	10.7	13.5	8.8	8.24
dissolved oxygen (mg/L)		4.8	1.81	4.46	4.27	6.89	4.27	5.89	3.48	4.2	5.3	5.93	7.81	7.5	4.5	4.47	5.11	4.22	9.84
oxidation reduction potential (mV)		-124	-90	-15	-79	162	-79	-61	246	91	-12	65	99	92	20	231	135	70	283
Notes:		-124	-70	-10	-17	102	-17	-01	240	/1	-12	0.5		/2	20	4.71	133	70	203

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- * Sum of total phenolic compounds may not exceed 1 ($\mu g/L$)
- Concentrations are from duplicate sample or dilution, which was greater than the original sample
 Indicates no NYS GA Groundwater Standard
 B The analyte was also detected in a blank.
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- J Analyte was positively identified, quantitation is an approximation
- N/A Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

 UJ The analyte was not detected above the RL, however the quantitation is an approximation.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

Monitoring Well ID	NYSDEC		TF3MW-129								
Sample ID	GW	TF3M12918AA	TF3M12918BB	TF3M12915CA	TF3M12917DA	TF3M12918EA	TF3M12918FA	TF3M12918GB	TF3M12918HB	TF3M12918IB	
Date of Collection	Standards1	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/2003	6/20/03	9/12/03	12/12/2003	3/17/2004	
Sample Depth (ft)	(μg/L)	13	13	15	17	18	17	18	18	18	
VOCs (ug/L)											
1,1,1-trichloroethane	5	U	0.41 F	0.25 F	U	0.35 F	0.24 F	U	U	U	
1,3,5-trimethylbenzene	5	U	U	U	U	U	U	U	U	0.39 F	
acetone	50	U	U	U	U	U	U	U	4.4 F	U	
benzene	1	0.44 F	U	U	U	U	0.61	0.58	0.31 F	2.2	
chloroform	7	U	0.45 F	U	U	0.31 F	0.39 F	0.22 F	0.21 F	U	
sec - butylbenzene	5	0.21 F	U	U	U	U	U	U	U	U	
ethylbenzene	5	0.78	0.25 F	0.42 F	0.23 F	1.1	0.95 F	1.2	0.61 F	3.9	-
isopropylbenzene	5	1	0.29 F	0.34 F	U	1.3	0.65 F	0.67 F	0.3 F	4.5	3
n-propylbenzene	5	U	U	U	U	U	U	U	U	0.22 F]
naphthalene	10	U	U	U	UJ	0.21 F	U	U	U	U	Ē
trichloroethylene	5	0.34 F	0.41 F	0.32 F	0.4 F	0.33 F	0.2 F	0.27 F	0.3 F	0.28 F	
o-xylene	5	U	U	U	U	U	U	U	U	0.31 F	3
Total VOCs		2.77	1.81	1.33	0.63	3.6	3.04	2.94	6.13	11.8	Trounching wen not sampled area trianen
SVOCs (µg/L)										-	1
bis(2-ethylhexyl)phthalate	5	3 F	U	U	U	U	U	U	U	U	
benzoic acid		U	U	U	U	U	17 R	7 R	U	U .	3
di-n-butyl phthalate	50	3 F	U	U	U	U	U	U	U	U	<u> </u>
flouranthene	50	23	4 F	4 F	5 F	4 F	U	U	U	U	ו
phenanthrene	50	8 F	U	U	U	U	U	U	U	U	20
pyrene	50	16	U	3 F	4 F	3 F	U	2 F	U	n .	1
Total SVOCs		53	4 F	7 F	9 F	7 F	0	2 F	0	0 :	
Wet Chemistry Data (mg/L)											1
nitrate	10000	0.22	0.28	0.14	N/A	0.46	0.84	0.4	0.82	0.8	1
sulfate	250000	U	14.7	17.6	9.3	14.2 B	24	12.6	23.6	18.3	
sulfide		U	U	U	U	U	U	U	U	U	
total alkalinity		216	208	223	149	202	235	221	324	175 B	
Field Parameters											
dissolved iron (mg/L)		0.3	N/A	0.2	0.4	0.2	0.02	0	0.6	0.5	
рН		7.17	7.59	6.75	7.39	9.09	7.39	7.37	6.83	7.17	
specific conductance (μS/cm)		563	478	537	512	439	293	480	584	61	
temperature (degrees C)		11	11	12.4	12.7	11.1	11.12	12.06	12.86	10.48	
dissolved oxygen (mg/L)		3.90	1.36	1.22	3.09	3.97	3.89	5.06	7.71	3.2	
oxidation reduction potential (mV)		-59	-75	29	-50	-73	-61	-102	-43	151	

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- - Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- F Analyte was positively identified but the associated numerical value is below the reporting limit

 $\ensuremath{\text{N/A}}$ - Analyte was not analyzed during sampling

U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

Monitoring Well ID	NYSDEC		141111	uring rung 5 D	etected Analytical	TF3MW-					
Sample ID	GW	TF3M13016AA	TF3M13017BB	TF3M13018CA	TF3M13016DA			TF3M13017GB	TF3M13017HB	TF3M13017IB	
Date of Collection	Standards1	2/12/02	6/19/02	9/13/02	12/20/2002	3/12/2003	6/23/2003	9/12/2003	12/12/2003	3/17/2004	
Sample Depth (ft)	(µg/L)	16	16	16	16	17	17	17	17	17	
VOCs (ug/L)											
1,1,2-trichloroethane	1	1.1	U	U	U	U	U	U	U	U	
1,2,4-trimethylbenzene	5	12	U	0.75	0.59	0.37 F	0.67 F	0.87 F	0.83 F	1.8	
1,3,5-trimethylbenzene	5	2.5	U	U	U	U	0.37 F	0.74 F	0.89 F	U	
bromodichloromethane	5	0.25 F	U	U	U	U	U	U	U	U	
chloroethane	5	U	U	0.25 F	0.26 F	U	U	U	U	U	
chloroform	7	0.25 F	U	U	U	U	U	U	U	U	4
sec - butylbenzene	5	0.61	U	1.2	0.21 F	U	U	0.65 F	0.39 F	0.48 F	2004
ethylbenzene	5	1.7	0.74	0.98 B	1.3	0.68	0.41 F	3.8	3.3	1.7	ch 🤅
isopropylbenzene	5	2.4	0.23 F	1.2	1.4	0.46 F	0.72 F	1.8	2.5	2.3	ā
methylene chloride	5	U	U	U	U	0.53	U	U	U	U	Ξ
p-isopropyltoluene	5	0.45 F	U	0.49 F	U	U	U	U	U	U	fteı
n-propylbenzene	5	1.3	U	1.4	0.78	0.44 F	0.34 F	2.4	2	2.1	d a
naphthalene	10	U	0.53 F	0.61 F	1.9	0.47 F	1.7	0.98 F	3	1	ple
o-xylene	5	1.3	0.26 F	U	0.47 F	U	U	0.48 F	0.55	0.38 F	am]
m,p-xylene	5	1.5	0.47 F	U	0.38 F	U	U	1.4 F	1.1 F	0.68 F	t Si
Total VOCs		25.36	2.23	6.88	7.29	2.95	4.21	13.12	14.56	48.78	n
SVOCs (µg/L)											vell
bis(2-ethylhexyl)phthalate	5	U	U	2 F ♦	U	U	U	U	U	U	lg I
benzoic acid		U	U	U	U	U	17 R	7 R	U	U	Ē
Wet Chemistry Data (mg/L)											Monitoring well not sampled after March
nitrate	10000	0.29	1.5	U	N/A	1.3	1.8	0.86	1.5	0.75	<u>5</u>
sulfate	250000	48	13.1	12.3	70	13.2 B	17.6	8.4	13.2	12.6	~
sulfide		U	U	U	U	U	U	U	U	0.056 F	
total alkalinity		225	136	246	120	157	149	212	240	137 B	
Field Parameters											
dissolved iron (mg/L)		1	N/A	0.6	0.8	0.4	0	0	0.2	0	
рН		6.92	7.18	7.11	7	7.02	6.63	7.1	6.18	6.76	
specific conductance (µS/cm)		465	301	591	340	345	226	412	343	50	
temperature (degrees C)		10.3	10.2	13	12.6	9.88	10.34	12.88	12.89	9.38	
dissolved oxygen (mg/L)		3.69	2.57	1.22	3.65	5.19	6.3	4.48	3.81	2.7	
oxidation reduction potential (mV)		-41	4	-12	-17	163	32	-38	48	81	

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- ♦ Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- N/A Analyte was not analyzed during sampling
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

Former Griffiss AFB

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Table 3-2

						and 3 Detected	Analytical Result	s (cont	tinued)					Page 3-24	
Monitoring Well ID	NYSDEC				3MW-131							3MW-132			
Sample ID	GW	TF3M13117HB	TF3M13114IB			TF3M13114LB			TF3M13217HB			TF3M13217KB	TF3M13217LB		
Date of Collection	Standards ¹	11/25/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005		11/25/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005]
Sample Depth (ft)	(µg/L)	17	14	15	15	15	14		17	17	16	17	17	17	
VOCs (ug/L)															1
1,2,4-trimethylbenzene	5	U	U	U	U	U	U		U	U	U	U	U	U	1
1,3,5-trimethylbenzene	5	U	U	U	U	U	U		U	U	U	U	U	U]
acetone	5	U	U	1.5 F	U	U	U		U	U	1.8 F	1.9 F	U	U	1
chloroform	7	0.34 F	U	0.55	0.4 F	0.47 F	0.3 F		0.93	U	0.79	0.63 B	0.57	0.78	1
chloroethane	5	U	U	U	U	U	U		U	U	U	U	U	U	1
cis-1,2-dichloroethylene	5	U	U	U	U	U	U		U	U	0.21 F	0.22 F	U	U	1
sec - butylbenzene	5	U	U	U	U	U	U		U	U	U	U	U	U	1
ethylbenzene	5	U	U	U	U	U	U	2005	U	U	U	U	U	U	0.5
isopropylbenzene	5	U	U	U	U	U	U	20	U	U	U	U	U	U	2005
methylene chloride	5	U	U	U	U	U	U	March	U	U	U	U	U	U	Ch C
p-isopropyltoluene	5	U	U	U	U	U	U	Íar	U	U	U	U	U	U	Tar.
n-butylbenzene	5	U	U	U	U	U	U	r N	U	U	U	U	U	U	
n-propylbenzene	5	U	U	U	U	U	U	after	U	U	U	U	U	U	fte
naphthalene	10	U	U	U	U	U	U	d a	U	U	U	U	U	U	d a
trichloroethylene	5	0.43 F	0.32 F	0.36 F	0.38 F	0.27 F	0.29 F	sampled a	0.8 F	0.67 F	0.64 F	0.69 F	0.6 F	0.65 F	well not sampled after March
t-butylbenzene	5	U	U	U	U	U	U	Į,	U	U	U	U	U	U	1 🗐
m,p-xylene	5	U	U	U	U	U	U	t sa	U	U	U	U	U	U	t s
methylene chloride	5	U	U	U	U	U	U	not	U	U	U	U	U	U	1 2
Total VOCs		0.77	0.32	2.41	0.78	0.74	0.59	well	1.73	0.67	3.44	3.44	1.17	1.43	le l
SVOCs (µg/L)															
2-methylnapthalene		U	U	N/S	N/S	N/S	N/S	Monitoring	U	U	N/S	N/S	N/S	N/S	Monitoring
naphthalene	10	U	U	N/S	N/S	N/S	N/S	ito	U	U	N/S	N/S	N/S	N/S	1 5
Total SVOCs		0	0	N/S	N/S	N/S	N/S	ou	0	0	N/S	N/S	N/S	N/S	0
Wet Chemistry Data (mg/L)								X							Σ
nitrate	10000	1	1.1	1.1	0.73	0.95	0.55		2	2	1.8	1.6	1.7	1.4	
sulfate	250000	16.7	14.9	N/S	N/S	N/S	N/S		19.3	20.4	N/S	N/S	N/S	N/S	1
sulfide		U	0.26 F	N/S	N/S	N/S	N/S		U	U	N/S	N/S	N/S	N/S	1
total alkalinity		416	146 B	200	226	187	222		346	182 B	268	236	233	237	1
Field Parameters															
dissolved iron (mg/L)		0	N/A	0	0	0	0		0.8	0	0	0	0	0	1
pH		5.9	6.89	6.98	7.46	6.57	6.65		6.02	7.18	7.13	7.31	6.57	7.01	1
specific conductance (µS/cm)		626	80	0.11 *	84.8	65	0.1 *		682	66	63	76.7	90	0.071 *	1
temperature (degrees C)		13.15	9.21	11	14.6	11.7	9		12.03	9.94	10.1	12.1	11.4	10.2	1
dissolved oxygen (mg/L)		2.43	1.6	4.8	3.64	7.58	6.39		2.63	2.9	4.9	6.52	8.78	9.52	1
oxidation reduction potential (mV)		249	169	59	154	141	152		274	169	77	269	118	204	1
Notes:													· · · · · · · · · · · · · · · · · · ·		

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- * specific conductance is measured in S/m.
- - Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- N/A Analyte was not analyzed during sampling
- N/S- Analyte was not sampled.
- U The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

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Table 3-2
Tank Farms 1 and 3 Detected Analytical Results (continued)

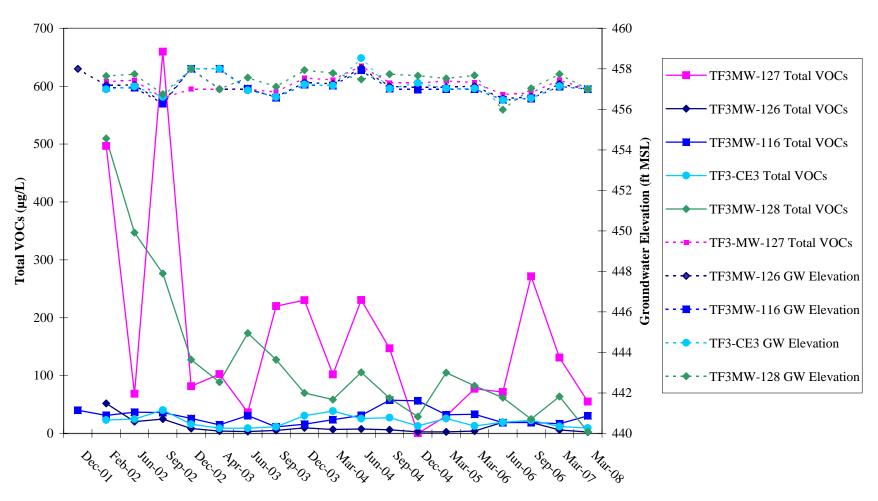
Monitoring Well ID	NYSDEC			Tank Fai	ms 1 and 3 Detec	icu Analyticai K	TF3MW-133	3				
Sample ID	GW	TF3M13316HB	TF3M13317IB	TF3M13316JB	TF3M13316KB	TF3M13316LB	TF3M13316MA	TF3M13316NA	TF3M13316OA	TF3M13316PA	TF3M13316RA	TF3M13316RA
Date of Collection	Standards ¹	11/25/2003	3/17/2004	6/17/2004	9/13/2004	12/30/2004	3/29/2005	3/28/2006	6/20/2006	9/29/2006	3/21/2007	3/20/2008
Sample Depth (ft)	(μg/L)	17	16	16	16	16	16	16	16	16	16	16
VOCs (ug/L)												
1,2,4-trimethylbenzene	5	80	72	49	15	12	9.3	22	9.2 ♦	2.88	4.16	U
1,3,5-trimethylbenzene	5	44	26	16	6.2	5.7	8.6	12	U	U	U	18.2 ♦
chloroethane	5	U	U	U	U	U	0.33 F	U	U	U	U	U
cis-1,2-dichloroethylene	5	U	U	U	U	U	U	U	U	U	U	U
sec - butylbenzene	5	11	12	8.4	4.8	4.1	6.3	5.9	8.3 ♦	4.53	5.77 J	4.82 ♦
ethylbenzene	5	U	0.73 F	0.97 F	U	U	0.2 F	0.38 F	0.31 F ◆	0.16	0.25 F	0.28 F ◆
isopropylbenzene	5	13	20	14	5.3	4.3	6.8	8.5	11 ♦	5.16	6.75 J	9.75 ♦
methylene chloride	5	2.9 B	0.56 F	1.8 F	U	U	U	U	U	U	U	U
p-isopropyltoluene	5	18	3.5	1.9 F	0.8 F	0.88 F	1.5	2.4	2.2 ♦	1.29	1.53	2.21 ♦
n-butylbenzene	5	5.1	3.1	1.8 F	0.77 F	0.68 F	1.4	0.83 F	2.2 ♦	1.19	0.83 F	1.02 ♦
n-propylbenzene	5	16	20	14	6.6	5.4	7.6	8.7	13 ♦	6.59	7.61 J	10.4 ♦
naphthalene	10	3.7	5.2	3	0.87 F	0.98 F	1.6	1.6	2.5 B ♦	2.09	2.1 J	1.69
trichloroethylene	5	U	U	U	U	U	U	U	U	U	U	U
t-butylbenzene	5	1.9	1.3 F	1 F	0.54 F	0.45 F	0.75 F	0.66 F	1 ♦	0.92	0.6 F	0.71 F ◆
m,p-xylene	5	8.2	5	3.4 F	1.2 F	0.95 F	1 F	1.3	1.1 F ♦	0.49	0.6 F	0.7 F ◆
methylene chloride	5	U	U	U	U	U		U	U	U	0.29 F	U
Total VOCs		200.9	169.39	115.27	42.08	35.44	38.08	62.97	50.81	25.3	30.39	49.78
SVOCs (µg/L)												
2-methylnapthalene		15	9 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
naphthalene	10	3 F	3 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Total SVOCs		18	12 F	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Wet Chemistry Data (mg/L)												
nitrate	10000	0.064	0.45	0.14	0.098	0.59	U	N/S	N/S	N/S	N/S	N/S
sulfate	250000	36.8	9.4	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
sulfide		U	U	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
total alkalinity		310	153 B	263	223	226	272	N/S	273	330	300 ♦	N/S
Field Parameters						_						_
dissolved iron (mg/L)		0.8	1.8	3.3	2.8	2	3.2	0.7	0.4	0.4	0.7	0
pH		6.61	7.05	7.15	7.29	6.09	6.98	7.22	7.51	6.71	7.89	6.55
specific conductance (μS/cm)		542	41	58	62.7	62	70	82.4	94	67	61.3	54.3
temperature (degrees C)		11.63	8.12	9.7	12.7	11	8.9	8.95	10.3	13.2	9.2	9.19
dissolved oxygen (mg/L)		1.1	2.8	4.1	3.82	8.41	6.89	4.65	280	4.76	4.65	6.67
oxidation reduction potential (mV)		-101	-37	-96	-94	-31	32	-60	90	164	-16	65

Notes:

- 1 Groundwater Standards are from Technical and Operational Guidance Series (TOGS) 1.1.1, June 1998. Amended in April 2000
- * specific conductance is measured in S/m.
- - Indicates higher value detected in the sample duplicate or during the dilution phase.
- -- Indicates no NYS GA Groundwater Standard
- F Analyte was positively identified but the associated numerical value is below the reporting limit
- N/S- Analyte was not sampled.
- $U The \ analyte \ was \ analyzed \ for, \ but \ not \ detected. \ The \ associated \ numerical \ value \ is \ at \ or \ below \ the \ method \ detection \ limit.$

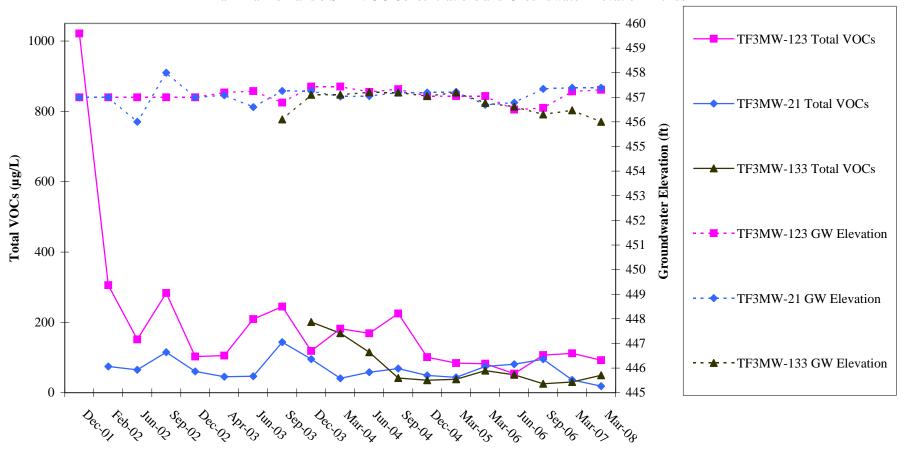
Draft Long-Term Monitoring Report
Petroleum SRA LTM Program
Former Griffiss AFB
Contract # F41624-03-D-8601 / Task Order #0027
Revision 0.0
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Figure 3-3
Tank Farms 1 and 3 SRA VOC Concentrations and Groundwater Elevation Trends



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Figure 3-4
Tank Farms 1 and 3 SRA VOC Concentrations and Groundwater Elevation Trends



Sampling Round

March 2008

VOC contaminated groundwater plumes are shown on Figure 3-2. Two plumes from two source areas have stabilized and are attenuating. The plume located near monitoring wells TF3MW-127, -128, and -133 is associated with former UST 147-1 through 4, while the second plume is located in the vicinity of TF3MW-21, -116, -123 and decommissioned well TF3MW-125, where the source was most likely former USTs 114-1 through -8 and the former truck maintenance shed that was located north of Building 3 (possibly near TF3MW-123 and -125).

Monitoring wells TF3-CE3, TF3MW-21,-116, -123, -127, and -133 contained VOC exceedances. The only areas with residual contamination are in the vicinity of TF3MW-127, and at TF3MW-123 located on Brooks Rd. These areas have been previously injected with ORC® and have shown measured attenuation over time. In addition temporary biosparging has taken place at TF3MW-123 and -127. Most of the contaminants at the site have attenuated to within one order of magnitude of the applicable groundwater standard.

3.5 CONCLUSIONS AND RECOMMENDATIONS

The 2002 source removal excavation (Parsons, December 2003) positively affected localized groundwater conditions. The original LTM plan is summarized in Table 3-1. In Fall 2005, ORC® Advanced was injected into the source area of Tank Farms 1 & 3 near TF3MW-128 (as shown on Figure 3-2) and added to monitoring wells TF3MW-21, -116, -117, -118R, -121R and -123 by the use of ORC® socks. In summer 2006, additional ORC® was injected in the vicinity of monitoring wells TF3MW-133, TF3MW-123 and former well TF3MW-125 to promote biodegradation. An intermittent application of mobile biosparging at the most contaminated wells (TF3MW-123, and -127) enhances bioremediation and speeds groundwater cleanup. Previous sampling rounds have shown that the bioremediation process appears to be electron-acceptor limited at the site. Iron reduction appears to be the remaining indicator of microbial degradation at wells TF3MW-123 and -21 at the Tank Farms 1&3 site. Many of the perimeter wells have shown no contamination for several years and were removed from the sampling list. An optimized LTM network is listed in Table 3-3 and shown on Figure 3-2.

Monitoring wells TF3MW-123, -127, and -133 appear to be the remaining contaminated wells, with VOC contamination that is primarily isopropylbenzene, ethylbenzene, and 1,2,4-trimethylbenzene. Contaminant levels are generally within one order of magnitude from the groundwater standard and appear to be attenuating naturally. Downgradient sampling locations showed no increases in contamination. Based on the December 2001 through March 2008 sampling rounds and review of analytical results, two groundwater plumes exist as shown on Figure 3-2. Site closure is expected once residual contamination areas surrounding TF3MW-123, -127, and -133 are fully attenuated and all associated analytical data is below NYS Class GA Groundwater Standards.

Table 3-3
Tank Farms 1 and 3 Proposed Future LTM Sampling

Sampling Locations	Sampling Rationale	Target Analytes/ Method Numbers	Sampling Frequency	Evaluation Criteria/ Modification Justification				
TF3-CE3	Within plume	VOCs (AFCEE QAPP	Annually	The plume is stable.				
TF3MW-21	Within plume	4.0 List)/SW8260	•					
TF3MW-116	Within plume							
TF3MW-123	Within plume							
TF3MW-127	Within plume							
TF3MW-128	Within plume							
TF3MW-133	Within plume							
Recommended LTM Changes								
September 2008								
		Removed Sampling Lo	ocations					
TF3MW-117	Crossgradient of plume	VOCs (AFCEE QAPP 4.0	Annually	The plume is stable and consistently contains				
TF3MW-126	Crossgradient of plume	List)/SW8260		contamination at or below the NYSDEC				
TF3MW-119R	Downgradient of plume			Class GA groundwater Standards, historical				
TF3MW-121R	Downgradient of plume			analysis shows that wells are no longer				
				needed to track contamination.				
	September 2007							
		Analysis Chang	es					
All sampled wells		Alkalinity/310.2	Annually	Analysis is no longer needed				

Table 3-3 (continued)

Tank Farms 1 and 3 Proposed Future LTM Sampling

Sampling	Sampling Rationale	Target Analytes/	Sampling	Evaluation Criteria/					
Locations	Sampling Kationaic	Method Numbers	Frequency	Modification Justification					
Locations									
Historical LTM Network Changes									
	J	une 2006 Analysis/I	requency Cha	ange					
TF3MW-119R TF3MW-121R	Downgradient of plume Downgradient of plume	SVOCs/SW8270		SVOCs were not identified at these wells following six sampling rounds. SVOC sampling is no longer needed.					
All sampled wells		Nitrate/353.2		Nitrate is no longer a useful biodegradation indicator at the Tank Farms 1 and 3 site, and will not be sampled after the Winter 2006 sampling round.					
November 2005 Removed Sampling Locations									
TF3MW-131	Upgradient of plume			Previous quarterly LTM samples indicate that					
TF3MW-132	Upgradient of plume			no contamination is present and additional					
				groundwater sampling is not needed.					
	Febi	ruary 2005 Remove	d Sampling Lo	cations					
TF3MW-124	Crossgradient of plume			Previous quarterly LTM samples indicate					
TF3MW-129	Upgradient of plume			that no contamination is present and					
TF3MW-130	Upgradient of plume			additional groundwater sampling is not					
				needed.					
	June 2004								
		Analysis/Frequ	ency Changes						
All sampled wells		Sulfate/376.3 Sulfide/375.4		Sulfate reduction is depleted and will no longer be sampled during June 2004 round.					

Table 3-3 (continued) Tank Farms 1 and 3 Proposed Future LTM Sampling

Sampling Locations	Sampling Rationale	Target Analytes/ Method Numbers	Sampling Frequency	Evaluation Criteria/ Modification Justification				
Added Sampling Locations								
TF3MW-119R TF3MW-121R	Downgradient of plume Downgradient of plume	VOCs and SVOCs(AFCEE QAPP 3.1 List)/SW8260 and SW8270 Alkalinity/310.2 Nitrate/353.2	Quarterly	Quarterly monitoring with semi-annual evaluation and recommendations. SVOC analysis was added due to previous identification of SVOC contamination. Monitoring well locations were replacements for previous well locations.				
		Removed Sampling	Locations					
TF3MW-118 TF3MW-119 TF3MW-120 TF3MW-121	Downgradient of plume Downgradient of plume Downgradient of plume Downgradient of plume	VOCs (AFCEE QAPP 3.1 List)/SW8260	Quarterly	Decomissioned March 2002 due to site construction. Its				
TF3MW-1 TF3MW-25 TF3MW-125	Within plume Crossgradient of plume Within plume	VOCs (AFCEE QAPP 3.1 List)/SW8260	Quarterly	Destroyed 2003 due to site construction.				

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4 REFERENCES

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AFCEE (Air Force Center for Environmental Excellence). Quality Assurance Project Plan, Version 4.0, February 2005.

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Daily Chemical Quality Control Report

ProjecuDen	very Order Number: F41624-03-D-8601-0027	Date: 3/20/08
Project Nan	ne/Site Number: Griffiss Petroleum Spills Sites samplin	g (Tank Farms 1 and 3).
Weather con	nditions: Temperature: 38 Barometric reading: 29.6 Wind direction and speed: Northwest 7.8 mph Significant wind changes: None.	
General des 21, -116, -1	cription of tasks completed: Bailer sampling at Site Ta 17, -123, -126, -127, -128, -133, and -CE).	nk Farms 1 and 3 (TF3MW-
Explain any field activiti under water	departures from the SAP or deviations from approved les: Monitoring wells TF2MW-119R and -121R were not	procedures during the day's ot sampled because they were
	technical problems encountered in the field or field equalfunction: None.	uipment/field analytical
Corrective a necessary.	actions taken or instructions obtained from AFCEE pers	onnel: No corrective actions
Sampling sh	nipment completed: √ Yes □ No LSL Courier.	
		Date: 31 March 2008
CQCC Sign	ature: Concordia van Hoear Date:	4/2/08
ATTACHM	` 0	, ,
Checklist	Daily Chemical Quality Control Report A	ttachments
V	✓ Field sampling forms	
3 /		

Checklist	Daily Chemical Quality Control Report Attachments
V	✓ Field sampling forms
	✓ Equipment Calibration Log
V	✓ Copies of COCs
	✓ SDG Table (See accompanying COCs)
\vee	✓ Daily Health and Safety Meeting Form

Project: 40-05-27 Sampled by: 5-0F

Location and Site Code (SITEID): Tank Parm

Well No. (LOCID): MW-CF Well Diameter (SDIAM): 4ia

Date (LOGDATE): 3. 20.06 Weather: Clos dy, Rainy 30°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5,0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1,5	2.0	2.6

PURGING INFORMATION:

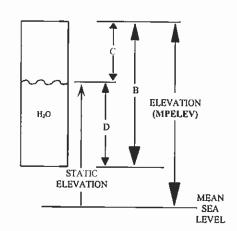
Measured Well Depth (B) (TOTDEPTH) 27.5

Measured Water Level Depth (C) (STATDEP) 11.9

Length of Static Water Column (D) = $\frac{27.5}{(B)}$ - $\frac{11.9}{(C)}$ = $\frac{15.6}{(D)}$ ft.

Casing Water Volume (E) = $\frac{.45}{(A)} \times \frac{.56}{(D)} = \frac{.14}{(D)} \text{gal}$

Minimum Purge Volume = 30. 42 gal (3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: Our & grey, 44 perso odor, water gets chance

FIELD MEASUREMENTS:

Allowable Range: $\pm 0.1 \pm 5\% \pm 1^{\circ}$ C

Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1007	5	6.55	72	8.5	7999	6.94	31
1012	10_	6.54	76	9.6	7999	4.67	-53
1018	15_	6.71	77	9.5	969	3.20	-83
1023	20	6.78	77	9.5	930	5.76	-80
1027	25	6.80	78	9.6	7999	3.96	-94
1032	30	6.84	78	9.8	>999	5.92	-97
			-				

Sample Time: 1035 Sample ID: TF3(F3125A

Project: 40.05.27	Sampled by: 18/5W
Location and Site Code (SITEID):	1+3
Well No. (LOCID): wレーブデスルペーン!	Well Diameter (SDIAM):
Date (LOGDATE): 3.2008	Weather: 25°/03622 asT

CASING VOLUME INFORMATION.

Casing ID (inch)	1.0	1.5	2 0	2.2	3.0	4 0	4.3	50	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0 09	0.16	0.2	0.37	0.65	0.75	10	1.5	20	26

PURGING INFORMATION:

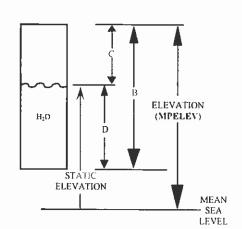
Measured Well Depth (B) (TOTDEPTH) 26.26 ft.

Measured Water Level Depth (C) (STATDEP) 13.30 ft

Length of Static Water Column (D) = $\frac{12.76}{(B)}$ ft.

Casing Water Volume (E) = $\frac{x}{(A)} = \frac{4.424}{(D)}$ gal

Minimum Purge Volume = 24.17 gal (3 well volumes)



Purge Date and Method: Bailen

Physical Appearance/Comments: FE 34 (clear/slight retain of

FIELD MEASUREMENTS:

Allowable	Range:	± 0.1	± 5%	±1°C			
Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1128	5	7.16	0.111	10.27	168	3-95	-87
1132	16	7.25	54.8	10-73	69.1	7.05	-104
1136	15	7.29	89.7	16.87	90.4	1.23	-116
110	10	7.33	85.6	10.83	78.4	0.0	-121
1144	25	2,37	82.0	10.65	84.9	6.6	-124
1146	27.5	7.36	8 4.2	10, 43	89.0	0.53	-124
/							
					_		

Sample Time: 1150 Sample ID: TF3 T12113 5A

Project: 40.05.17 Sampled by: Telaw

Location and Site Code (SITEID): ________

Well No. (LOCID): we-TF3nw-116 Well Diameter (SDIAM): 2"

Date (LOGDATE): 3.20-08 Weather: 25 / Overcust

CASING VOLUME INFORMATION:

Casing ID (inch)	10	1.5	20	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0 04	0 09	0.16	0.2	0.37	0 65	0 75	1.0	1.5	20	2.6

PURGING INFORMATION:

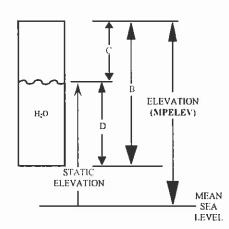
Measured Well Depth (B) (TOTDEPTII) 21.39

Measured Water Level Depth (C) (STATDEP) /2.66

Length of Static Water Column (D) = $\frac{}{(B)}$ - $\frac{}{(C)}$ = $\frac{}{(D)}$ (D)

Casing Water Volume (E) = (A) (D) = 1.406.4 gal

Minimum Purge Volume = 4.21 gal (3 well volumes)



Purge Date and Method: Brilen

Physical Appearance/Comments: FE- 2.6 / slight petro oden

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 $\pm 5\%$ ±1°C

1110 110010							
Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1209	.75	7.34	61.2	9.58	719	9.43	-8
1216	1.5	7.29	.096	9.90	282	7.39	-87
1211	2.25	7.28	90.5	10.13	222	6.84	-108
1212	3.0	7.28	92.1	10.16	208	5.49	~117
12.13	3.75	7.29	91.9	10.18	165	10,12	-123
1214	4.5	7.27	94.9	10.18	152	9.73	-123
1							
	_						

Sample Time: 1215 Sample ID: **7F3MIL613 SA**

Project: 40.05.27	Sampled by: 5P/SW
Location and Site Code (SITEID):	F 1 + 3
Well No. (LOCID): WL-TF3mW-117	Well Diameter (SDIAM): 2 **
Date (LOGDATE):	Weather: 25°/overcast

CASING VOLUME INFORMATION:

Casing ID (inch)	10	1.5	2 0	2 2	3.0	4.0	4.3	50	60	7 0	
Unit Casing Volume (A) (gal/ft)	0.04	0 09	0 16	0.2	0.37	0 65	0.75	10	1.5	2.0	26

PURGING INFORMATION:

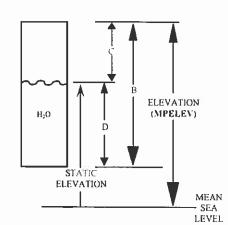
Measured Well Depth (B) (TOTDEPTH) 15.37 ft.

Measured Water Level Depth (C) (STATDEP) 10.02 ft.

Length of Static Water Column (D) = $\frac{}{(B)} - \frac{}{(C)} = \frac{$ 8.35 ft.

Casing Water Volume (E) = (A) x (D) = (B) (B)

Minimum Purge Volume = 4.00% gal (3 well volumes)



Purge Date and Method: BAILDA

Physical Appearance/Comments: FE-3.2 /s: 14, onange-petro oder

FIELD MEASUREMENTS:

Allowable	Range:	± 0.1	± 5%	±1°C			
Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1234	.25	7.25	0.107	8.72	7999	10.08	55
1236	1.25	7.18	0.121	8.83	487	2.59	~50
1237	2.25	7.17	0.122	8.82	172	1.84	-76
1238		7.17	0.122	8.72	149	2.43	-84
1239	4.25	7.18	0.122	- 6.76	88.9	1.12	- 94
			,				

Sample Time: 1240 Sample ID: 757 m 17 10 SA

	40-05-27		Sai	mpled by:	DP/C	5				
Location a	nd Site Code (SI	ΓΕΙ D): _	Tank	farm						
	Well No. (LOCID): 173 MW-123 Well Diameter (SDIAM): 2 in									
Date (LOGDATE): 3.20-08 Weather: Cloudy .30°										
Date (LOGDATE). 5-20-08 Weather: C10000										
CASING VOLU	ME INFORMATION:									
		1,5 2.0	1 22 1	30 140	1 42 64		70			
Casing ID (inch) Unit Casing Volum	1.0 ne (A) (gal/ft) 0.04	1.5 / 2.0	// -/	3.0 4.0 0.65	0.75 1.0	 	2.0 2.6			
*** -										
PURGING INFO	RMATION:				→	A A				
Measured Well [Depth (B) (TOTDEPTH)	20.	8 .	.	Ç	T T				
Managed Water	Level Depth (C) (STATD	ED 12	.61		-					
				π.	\sim	В				
Length of Static	Water Column (D) =(B) - (C)	_= <u>\$.H</u>	.ft. H₂C	,	ELEVAT (MPELE				
	·	, , ,			D I					
Casing Water Vo	olume (E) = x _	=_	[-3] gal			♥				
					STATIC ELEVATION					
Minimum Purge	Volume = 3.93 ga	l (3 well volu	nes)				MEAN — SEA			
_							LEVEL			
_	e and Method: _		iler.	_						
Physical A	ppearance/Comm	nents:	Clear 1	dith S	light o	range	and he av			
			Petro o	1905.	Fe. 3	0				
	EASUREMENTS	:			. 0 2					
Allowable		± 0.1	± 5%	±1°C	m 1 1 114	D.0	CPP.			
Time	Volume	pН	EC (mS/om)	Temp.	Turbidity	D.O.	ORP			
1106	Removed (gal)	6.89	(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)			
1108	1.5	6.90	0.12	8.9	510	3.51 3.61	-47			
1109	2.25	6.90	0.12	9.0	560	4.46	-61			
LIII	3_	6.90	0.12	9.0	460	6.78	-61 -66 -69			
11174	C+3-75 4	6.92	0.12	9.0	SIO	8.77	-69			
				-1.						

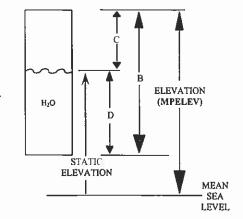
Sample Time: 117 Sample ID: TF3 M12313 SA / 5 < / 150

Project: 40.05	27	Sampled by: _	<u>CS-</u>	DF
Location and Site Code	(SITEID):	ank farm		
Well No. (LOCID): _	TF3 MW-126	Well Diameter	(SDIAM):	2in.
Date (LOGDATE):	3-20-08	Weather:	1000/	300

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4,3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:



Purge Date and Method: Bailer

Minimum Purge Volume = 4.032 gal (3 well volumes)

Physical Appearance/Comments: Orange, Petrs odor FE=2

FIELD MEASUREMENTS:

Allowable	Range:	± 0.1	± 5%	±1°C			
Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
0929	公主 .75	5.89	73	8.3	7999	4.96	268
0931	.5	6.00	71	8.8	7999	4.99	186
0932	2.25	6.16	70	1.2	590	4.95	104
6934	3	6.16	70	9.1	640	4.5%	16
0135	3.75	6.18	69	9.2	580	6-00	17
0936	4.5	6.25	69	9.2	620	5.37	-3
				-			

Sample Time: <u>0943</u> Sample ID: <u>TF3 N126135A</u>

Project: 40-05-27	Sampled by: 😗/Tw
Location and Site Code (SITEID):F	1+3
Well No. (LOCID):	Well Diameter (SDIAM):
Date (LOGDATE): 3.20.68	Weather: OUERCAST / 25°

CASING VOLUME INFORMATION:

Casing ID (meh)	10	1.5	2 0	2 2	3.0	40	4.3	5 0	6.0	7.0	Γ
Unit Casing Volume (A) (gal'ft)	0 04	0 09	0 16	02	0.37	0.65	0.75	10	1.5	20	26

PURGING INFORMATION:

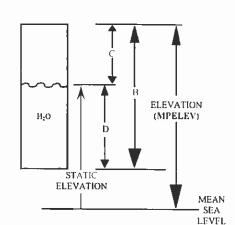
Measured Well Depth (B) (TOTDEPTH) $\frac{19.86}{12.23}$ ft.

Measured Water Level Depth (C) (STATDEP) $\frac{12.23}{12.23}$ ft.

Length of Static Water Column (D) = $\frac{12.23}{12.23}$ ft.

Casing Water Volume (E) = x = 1 gal (D)

Minimum Purge Volume = 3.66 gal (3 well volumes)



Purge Date and Method: 34. 18e

Physical Appearance/Comments: FE- 6.0 / Clean

FIELD MEASUREMENTS:

Allowable	Range:	± 0.1	± 5%	±1°C			
Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)	,	(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1057	.75	4.85	84.2	7.60	48.2	8.62	324
[[60	1.5	6.46	80.5	8.02	112.0	6.42	305
1101	2.25	6.91	77.4	8.29	143	4.26	251
1102	3.0	6.93	76.2	8.60	130	3.73	269
1103	3,75	6.95	77.0	8.41	130_	3.12	243
<u> </u>							
				<u>-</u>			
			1		1		

Sample Time: 1110 Sample ID: 7F3m 12712 SA

Project: 40.05.27	Sampled by: Te/T
Location and Site Code (SITEID):	1+3
Well No. (LOCID): W-7F3mw-128	Well Diameter (SDIAM): 2.
Date (LOGDATE): 3.20.08	Weather: OJCRLAST / 28°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0 04	0.09	0 16	0 2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

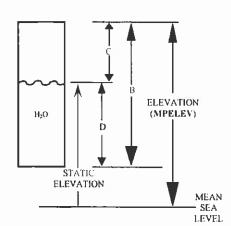
Measured Well Depth (B) (TOTDEPTH) 20.05 it.

Measured Water Level Depth (C) (STATDEP) /2,67 ft

Length of Static Water Column (D) = $\frac{}{(B)} - \frac{}{(C)} = \frac{}{(D)}$

Casing Water Volume (E) = x = (A) (D) = 1.1 **Solution**

Minimum Purge Volume = 3.54 gal (3 well volumes)



Purge Date and Method: BALLER

Physical Appearance/Comments: FE - 0.0 / 5.147 Brown No odos

FIELD MEASUREMENTS:

Allowable	Range:	± 0.1	± 5%	±1°C			
Time	Volume	рН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
1026	.75	6.14	62.3	7.45	7917	10.39	246
1027	1.5	6.94	\$2.7	7.60	7199	10.00	272
10 24	2.25	6.95	\$3.0	7.94	232	4.55	274
1029	3.0	6.93	53. 9	8.15	SA.6	10.16	278
1030	3.75	644	54.1	8.24	37.2	7.84	783
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•							
			ļ			_	
· · · · · · · · · · · · · · · · · · ·		_					

Sample Time: 1040 Sample ID: TF3M128135A

Project: 40-65.27 Sampled by: 50/JW

Well No. (LOCID): Well Diameter (SDIAM): 2"

Date (LOGDATE): 3.20.08 Weather: OUERCAST / 25-300

CASING VOLUME INFORMATION:

Casing ID (inch)	10	1.5	2 0	2 2	3.0	40	4.3	5.0	60	7.0	
Unit Casing Volume (A) (gal/ft)	0 04	0 09	0 16	0.2	0.37	0.65	0.75	1.0	1.5	2 0	2.6

PURGING INFORMATION

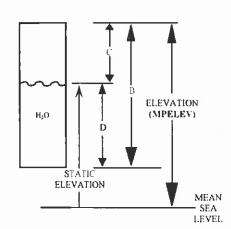
Measured Well Depth (B) (TOTDEPTH) 22.15 ft.

Measured Water Level Depth (C) (STATDEP) (\$3.31 ft)

Length of Static Water Column (D) = $\frac{}{(B)}$ - $\frac{}{(C)}$ = $\frac{$ 6.84 ft.

Casing Water Volume (E) = x = 1.09 (D)

Minimum Purge Volume = **3,2** gal (3 well volumes)



Purge Date and Method:

Physical Appearance/Comments: **fe-0.**0

FIELD MEASUREMENTS:

Allowable Range: $\pm 0.1 \pm 5\% \pm 1^{\circ}$ C

Time	Volume	pН	EC	Temp.	Turbidity	D.O.	ORP
	Removed (gal)		(mS/cm)	(F or C)	(NTU)	(mg/L)	(mV)
0544	.25	5.78	32.7	8,66	126	11.15	335
0945	1.00	5.79	32.5	8.51	248	9.39	377
0947	1.75	5.79	36.1	8,79	101	5.43	313
0949	2.5	6.00	40.4	9.03	35.5	6.32	260
095,	3.25	628	44.9	8.85	77,4	4.29	185
0952	4.0	6.28	48.3	9.06	83.6	5.55	רנו
0955	4.15	6.38	50.5	9.04	54.1	4.80	110
0957	3.5	6.46	52.3	9.25	57.8	6.60	50
0555	4.5	6.55	54.3	5.19	131	6.67	65
		G WE	4 VO	LUME	REM	OUED	

Sample Time: 1000 | Sample ID: 173m137155A/SC

Equipment Calibration Log

Instrument Name: Horiba U-22

Model Number:	FIM #2	

Date	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
6-19	4.00	3.91	4.00	4.00	
6/20	4.00	4.00	4.00		
6/21	4.00	3.99 4.••			
6/22	4.60	4,00			
6/25	4.00	4,00			
12-6	4,00	3,98			
12-10	4.00	3.98	4.	3.99	
12.23	4,00	3.95	4.00	4,00	
2-04	4.00	4.06	4.00	3,99	
3-3	4.00	3.98	4.00	4,00	
3-17	4,00	3.92	4.00	4.00	
3-18	4.00	3.94	4.00	4.00	
3-19	400	3.98	450	4.00	
3-20	4.00	3,98	4.08	4.00	
3-24	4.00	4.00			_
3-25	4.00	4.00			
3-31	4.8	4.50	4.00	4.00	

Equipment Calibration Log

Instrument Name:	Houba	
Model Number:	 	

Date	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
9-24	4.00	3.99			
9-25	4.00	3.93	4.00	4.00	
9-26	4.00	4.00			
9-26	4,00	3.24	4.00	4,00	
9-28	4.00	3.99			
10.1	4.00	4.00			
10-10	4,00	400			
12-11	4.00	3.97			
12-12	34	3.99			
12-13	4	399			
12/20	4,00	3.99			
3-12	4.00	4.10	4.00	4.00	
3-13	4	3.95	4	3.99	{
3-19	400	3,92	4.80	4.00	
3-24	4.00	3.99			
3-25	4.00	3.99	4.08	3.99	
3-25	400	3.99	400	4.08	
				·	
					_

AFCEE CHAIN OF CUSTODY RECORD

COC#: _2_ SDG#: _177_ Cooler ID: _A_

Send Results to: Niels van Hoesel	FPM Group	153 Brooks Road	Rome, NY 13441	Phone: (315) 336-7721 Ext. 205
Project Name: Griffiss AFB TF 1 and 3 Sampling	Sampler Name: David Forse			Sampler Signature: 12 /
Ship to: Monika Santucci	Life Science Laboratories, Inc.	5000 Brittonfield Pkwy, Suite 200	East Syracuse, NY 13057 Tel: (315)437-0200	Carrier: LSL courier.

	Comments													
	Total Sulfide Note 5 I o oz poly (ZnAC and HOaM		1	1		1	•	-	-	-	-	-	-	-
	Nitrogen (Nitrate) ^{note 4} 16 oz poly	_	-	_	-	1	-	-	-	-	1	-	_	1
	thinilallallal letoT (e) to the standard (e) t		-	-	_	-	-	_	-	-	-	-	-	
nested	ZAOC ⁸ note 5		-	_	_	-	-	-	-	ı	1	-	_	-
Analyses Requested	VOC ^{note 1} 40 Jm Visls (HCl)	3	3	3_	3	3	3	3	3	3	3	3	3	3
Analy	No. of Containers	3	3	3	3	3	3	3	3	3	3	3	3	3
	Hilt./Uhif	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	.JuO	Unf.	Unf.
	Ргезетуаціче	HCI	HCl	HCI	HCI	HCl	HCI	HCI	HCl	HCI	HCI	HCI	HCI	HCl
	ZYCODE	z	Z	Z	z	Z	FD	MS	SD	Z	z	Z	Z	FD
	2BD/2ED	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	SWCODE		В	В	В	В	B	В	В	В	В	В	В	В
	XIATAM	MG	ВM	WG	WG	ЯM	MG	MG	ЯM	ЭM	MG	ВM	WG	ВM
	Time	1035	1150	1215	1240	1117	1117	1117	1117	0943	1110	1040	1000	1000
	Date 2008	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
	Location ID (LOCID)	MW-CE	TF3MW21	WL-TF3MW-116	WL-TF3MW-117	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-126	WL-TF3MW-127	WL-TF3MW-128	WL-TF3MW-133	WL-TF3MW-133
	Field Sample ID		TF3M2113SA	TF3M11613SA	TF3M11710SA	TF3M12313SA	TF3M12313SC	TF3M12313SS	TF3M12313SD	TF3M12613SA	TF3M12712SA	TF3M12813SA	TF3M13315SA	TF3M13315SC

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0 Note 1: VOCs: SW8260, AFCEE QAPP 4.0 List. Sample Condition Upon Receipt at Laboratory:

Cooler Temperature:

Note 2: SVOCs: SW8270, AFCEE QAPP 4.0 List. Note 3: Total Alkalinity, 310.2. Note 4: Nitrogen: 353.2, Nitrate: Automated. Note 5: Total Sulfide: 376.2.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig) -2 Mong	Date: 3/20/08	#3 Released by: (Sig)	Date:
Company Name:	Тіте:	Company Name: FPM Group #td//	Time: /700,	Company Name:	Time
#1 Received by: (Sig) Niels van Hoesel	Date: 2/20/07	#2 Received by: (Sig) CTLL AL	Date 3/20/08	#3 Received by: (Sig)	Date
Company Name: FPM Group Ltd	Time: 1000	Company Name:	Time: 17 '01	Company Name:	Time:
MATRIX	SMC	SMCODE	SACODE		
WG = Ground water	I a	B = Bailer	N = Normal Sample	Sample	
WQ = Water Quality Control Matrix	0=9	G = Grab (only for EB).	AB = Ambient Blank	ent Blank	
SO = Soil	= VA	NA = Not Applicable (only for AB/TB)	TB = Trip Blank	3lank	
	= dd	PP = Peristaltic Pump	EB = Equipment Blank	ment Blank	
	BP =	BP = Bladder Pump	FD = Field Duplicate	Duplicate	
	SP =	SP = Submersible Pump	MS = Matrix Spike	x Spike	
	⇒ SS =	SS = Split Spoon	SD = Matri	SD = Matrix Spike Duplicate	

Daily Health and Safety Meeting Form

Date:3-20 = 08	Time: _	0830
Location: FPM office (garage)		
Weather Conditions: rain /40		
Meeting Type: Daily Health and Safety		
Personnel Present: D. Forse, J. Ret, J. Wen	rel,	D. Baldyga, O. Smit
Visitors Present: Now	_	
Visitor Training:		
PPE Required: Modified D		
Possible risks, injuries, concerns: Stip / frip / fall	old I dh	mp/ vet expressive
Anticipated Releases to Environment (if so, descr	ribe and detail	response action/control measures
implemented):		
None		
Property Damage:		
More		
Description (include sequence of events describing		
Analysis for, and Implementation of Corrective/I	Preventative P	rocedure to Prevent Future
Occurrences (to be formulated by SSHO + FOM	•	•
Report made by (Name): D Baldyge		
SSHP Organization Title: Site Safety and Health	n Officer	

FPM-GROUP

Data Verification and Usability Report GRIFFISS AIR FORCE BASE Site Griffiss AFB TANK FARM 1/3 Water Sampling Contract No. F41624-03-D-8601

FPM Project No. 40-05-27

LSL Job # 0803106

Laboratory: Life Sciences Laboratories, Inc.

Sample Matrix: Water Number of Samples: 13

Analytical Protocol: AFCEE QAPP, Version 4.0, with AFCEE-approved lab variances

Data Reviewer: Connie van Hoesel Sample Date: March 20, 2008

LIST OF DATA VERIFICATION SAMPLES

This verification report pertains to the following environmental samples and corresponding QC samples:

Sample ID	Date	QC Samples	Date
TF3CE312SA	3/20/08		
TF3M11613SA	3/20/08		
TF3M12712SA	3/20/08		
TF3M12813SA	3/20/08		
TF3M13315SA	3/20/08	TF3M13315SC	3/20/08
TF3M2113SA	3/20/08		
TF3M11710SA	3/20/08		
TF3M12613SA	3/20/08		
TF3M12313SA	3/20/08	TF3M12313SC, TF3M12313SD, TF3M12313SSS	3/20/08

Notes:

Refer to attached chain-of-custody for detailed sampling information and sample specific analyses requested.

- SA Primary environmental samples
- SC Field duplicate sample
- SD Matrix spike (MS)
- SS Matrix spike duplicate (MSD)

DELIVERABLES

The data deliverable report was per requirements of the AFCEE QAPP 4.0 and approved variances. The report consisted of the following major sections: lab attachment letter, case narrative, chain-of-custody, lab qualifier definitions, analytical results (sheet 2) based on analytical batch, calibration summaries, method blank summaries, laboratory control sample summaries, matrix spike/matrix spike duplicate summaries, holding time forms, performance checks, surrogate and internal standard recoveries, as applicable.

ANALYTICAL METHODS

The analytical test methods and QA/QC requirements used for the soil sample analysis was per methods as specified in the AFCEE Quality Assurance Project Plan, Version 4.0 and AFCEE approved laboratory variances. The analytical methods employed included SW-846: Volatile Organic Compounds (VOCs) by Method SW8260.

VERIFICATION GUIDANCE

The analytical work was performed by Life Sciences Laboratories, Inc. in accordance with the Air Force Center for Environmental Excellence (AFCEE), Quality Assurance Project Plan (QAPP), Version 4.0, with AFCEE-approved laboratory variances. The data was verified according to the protocols and QC requirements of the respective analytical methods and of the QAPP Version 4.0. For data usability purposes all values were further evaluated, including positive and non-detect results that were qualified "Q" according to the QAPP. The data usability analysis was based on the reviewer's professional judgment and on an assessment of how this data would fare with respect to the U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic (and Inorganic) Data Review (February 1994), and the AFCEE QAPP, Version 4.0.

QA/QC CRITERIA

The following QA/QC criteria were reviewed, as applicable and available:

- Method detection limits and reporting limits (MDL, RL)
- Holding times, sample preservation and storage
- MS tune performance
- Initial and Continuing calibration summaries
- Second source calibration verification summary
- Method blanks
- Ambient, equipment, and trip blanks (as applicable)
- Field duplicate results
- Surrogate spike recoveries
- Internal standard areas counts and retention times

- Laboratory control samples (LCS)
- Results reported between MDL and RL (F-flag)
- Sample storage and preservation
- Data system printouts
- Qualitative and quantitative compound identification
- Chain-of-custody (COC)
- Case narrative and deliverables compliance

The items listed above were in compliance with AFCEE QAPP and USEPA criteria and protocols with exceptions discussed in the text below. The data have been verified according to the procedures outlined above and qualified accordingly.

GENERAL NOTES:

MISSING SAMPLES

None. All samples documented on the chain of custody were received by the laboratory.

BLANKS

Whenever blanks, including method, ambient, equipment, and trip, contained low levels of contaminants (between MDL and RL), the laboratory and/or data verifier qualified the subject results with an "F" flag. Since no qualification of associated field samples are required for blanks less than half the RL, no further action was taken in such instances.

VOLATILE ORGANIC COMPOUNDS (VOCs)

- According to the case narrative, the following samples were analyzed at a dilution of 1:2: TF3M2113SA, TF3M12313SA, and TF3M12313SC. The dilution results only are reported and are used in data verification as representing original results.
- According to the case narrative, due to instrument malfunction, carryover contamination was
 observed in method blank MB-1311, which was analyzed within the 12-hour tune period.
 The blank was reanalyzed outside the 12-hour tune period (2 hours, 2 minutes outside of the
 12-hour BFB tune window). The laboratory provided results for the reanalysis of MB-1311
 only. Using professional judgment, no corrective action was considered necessary.
- The following table summarizes QC exceedances of the matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and/or RPDs for parent samples TF3M12313SA/SC. The spike analytes, MS recoveries, MSD recoveries, spike recovery QC limits, and RPDs and their QC limit between the MS and MSD are listed.

Parent Samples: TF3M12313SA/SC

Spike Compounds	MS %Rec	MSD %Rec	AFCEE QC Limits	RPD % (AFCEE limit 20%)	Flag Applied	Rationale
2-Butanone	217	240	49-136	10	M	%Rec outside AFCEE QC limits
4-methyl-2-	154	156	58-134	1	M	%Rec outside AFCEE QC limits
pentanone						
Acetone	225	222	40-135	2	M	%Rec outside AFCEE QC limits

Data for matrix spike/matrix spike duplicates (MS/MSD) are generated to determine longterm precision and accuracy of the analytical method on various matrices. Generally, these data alone cannot be used to evaluate the precision and accuracy of individual samples. A matrix spike and matrix spike duplicate analysis is an aliquot of sample spiked with known concentrations of all the analytes in the method. According to the AFCEE QAPP, the MS/MSD result is used to assess whether the sample matrix may bias the results. The AFCEE recommended frequency of analysis is one MS/MSD per 20 samples. Exceedances of either percent recovery (%Rec) control limits of spike concentrations or relative percent difference (RPD) control limits between the MS and MSD results, according to the QAPP require a "M" (matrix effect) qualifier for the specific analyte in all samples collected from the same site matrix as the parent. However, due to the varied nature of environmental samples, such as locations, depths, physical characteristics (dissolved and suspended solids, turbidity, pH, organic content, etc.), it is difficult to assign one set of MS/MSD sample analysis as truly representative of an entire site matrix. Therefore, based on the definition of this type of QA/QC sample, using professional judgment it is deemed inappropriate to qualify more than the actual parent sample due to a percent recovery or RPD exceedance. This approach is in accordance with the EPA National Functional guidelines, which states that the MS/MSD results are not used alone to qualify the entire data package, however, can be used in conjunction with other QC criteria to determine the need for some qualification of the data. Using professional judgment, no corrective action and/or flagging is deemed required for minimal exceedances (i.e., within 1% of the control limits).

<u>Corrective Action</u>: An "M" flag was applied to the sulfate results in parent samples TF3M12313SA/SC.

• Field duplicate samples, which are collected at the same location and at the same time using identical collection, handling, and analytical procedures, are used to assess precision of the sample collection process. The AFCEE QAPP requires qualification of data for field duplicates criterion if the duplicate samples contain detected compounds with concentrations above the reporting limits (RLs) and the relative percent differences (RPDs) between the duplicate sample results exceed AFCEE QAPP's RPD control limits. If these conditions are met for any analytes in the field duplicate samples, per the AFCEE QAPP, the specific analytes in all samples collected on the same sampling date are to be qualified as estimated ("J") for positive results and rejected ("R") for nondetects. Using professional judgment, it is deemed inappropriate to consider any set of field duplicate samples to be truly representative of a site or sampling event. Therefore, if qualification of data is needed, then only the parent-duplicate sample set will be qualified as estimated ("J") for positive results and rejected ("R") for non-detects, and no action will be taken for this criterion in all the other samples collected on the same sampling date.

The following table summarizes QC exceedances of the relative percent differences (RPD's) of field duplicate samples TF3M12313SA and TF3M12313SC.

Sample ID, Normal	Sample ID, Field Duplicate	3	Normal Result (µg/L)	Field Dup Result (µg/L)	MDL (μg/L) Normal, Dup	RPD	Flag Applied	Rationale
TF3M12313SA	TF3M12313SC	1,3,5- trimethylbenzene	2.94	2.16	0.320	30.6	J	RPD > 20%
TF3M12313SA	TF3M12313SC	n-propylbenzene	7.22	5.62	0.200	24.9	J	RPD > 20%

• <u>Corrective Action:</u> The analyte above exhibited RPD exceedances (above AFCEE's 20% limit). As discussed above, "J" qualifiers were applied to the results of samples TF3M12313SA and TF3M12313SC only, and these results are considered estimated.

DATA USABILITY RESULTS

VOCs

Based on the evaluation of all information in the analytical data groups, the results of the samples for VOCs are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

AFCEE SUMMARY

All data in Job # 0803106 are valid and usable with qualifications as noted in the data review.

Signed: Concordia	van Hoesel	Date: 4/16/08	
~181104		2 dt 5 !/ 1 d/ 5 d	

ATTACHMENTS

- Chain-of-Custody
- Laboratory's Case Narrative
 Definition of AFCEE Data Qualifiers
 Definition of USEPA Data Qualifiers
- Qualified final data verification results on annotated Lab Sheet 2s

AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Comments:

Prime Contractor.

FPM Group

TF3CE312SA	0803106-001A
TF3M2113SA	0803106-002A
TF3M11613SA	0803106-003A
TF3M11710SA	0803106-004A
TF3M12313SC	0803106-006A
TF3M12613SA	0803106-007A
TF3M12813SA	0803106-009A
TF3M13315SA	0803106-010A
TF3M13315SC	0803106-011A

		· · · —	
hardcopy da	data package is in compliance with the ter ness, for other than the conditions detaile ta package and in the computer-readable lanager's designee, as verified by the folk	l above. Releas data submitted o	e of the data contained in this
Signature:	Morika Landerce	Name:	Monika Santucci
Date:	4/7/08	Title:	Project Manager
4.0	AFCEE	FORM O-1	Page 1 of 3

Analytical Results

AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method: SW8260B AAB #: R13066 Lab Name: Life Science Laboratories, Inc. Contract Number: Base/Command: Prime Contractor: FPM Group rield Sample ID First Sample D 0803106-008A Comments: I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager's designee, as verified by the following signature. Monika Santucci Signature: Name: Project Manager Title: Date:

AFCEE FORM 0-1

Page 2 of 3

QAPP 4.0

AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor:

FPM Group

TF3M12313SA	0803106-005A
TF3M12313SA	0803106-005AMS
TF3M12313SA	0803106-005AMSD

for complet hardcopy d	data package is in compliance with the terms are eness, for other than the conditions detailed about a package and in the computer-readable data	ve. Releas submitted o	e of the data contained in this	
Laboratory	Manager's designee, as verified by the following	signature.	•	
Signature:	Monka Sanduca	Name:	Monika Santucci	_
Date:	4/7/08	Title:	Project Manager	_
DAPP 4.0	AFCEE FOR	M O-1	Page 3 of 3	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3CE312SA

Lab Sample ID:

0803106-001A

Matrix:

Date Analyzed:

Groundwater

% Solids:

Q

Initial Calibration ID: 1204

File ID:

T1966.D

Date Received:

24-Mar-08

21-Mar-08

Date Extracted:

Sample Size:

10 mL

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

Concentration in a property of the concentration in 100 (m+p)-Xylene 0.100 2.00 0.100 1,1,1,2-Tetrachloroethaле 0.250 0.500 0.250 1 U 1,1,1-Trichloroethane 0.160 1.00 0.160 1 U 1,1,2,2-Tetrachloroethane 0.160 0.500 0.160 1 U 1,1,2-Trichloroethane 0.250 1.00 0.250 1 U 1,1-Dichloroethane 0.160 1.00 0.160 1 U 1,1-Dichloroethene 0.250 1.00 0.250 1 u 1,1-Dichloropropene 0.250 1.00 0.250 1 U 1,2,3-Trichlorobenzene 0.500 1 1.00 0.500 u 1,2,3-Trichloropropane 1.00 2.00 1.00 1 U 1,2,4-Trichlorobenzene 0.500 1.00 1 0.500 U 1,2,4-Trimethylbenzene 0.160 1.00 0.160 1 U 1,2-Dibromo-3-chloropropane 2.50 5.00 2.50 1 U 1,2-Dibromoethane 0.250 1.00 0.250 1 u 1,2-Dichlorobenzene 0.160 1.00 0.160 1 U 1,2-Dichloroethane 0.250 0.500 0.250 1 U 1,2-Dichloropropane 0.160 1.00 0.160 1 U 1,3,5-Trimethylbenzene 0.160 1.00 0.160 1 U 1,3-Dichlorobenzene 0.160 1.00 0.160 1 U 1,3-Dichloropropane 0.160 0.500 1 0.160 U 1,4-Dichlorobenzene 0.160 0.500 0.160 1 U 1-Chlorohexane 0.250 1.00 0.250 1 U 2,2-Dichloropropane 0.500 1.00 0.500 1 U 2-Butanone 2.50 10.0 2.50 U 2-Chlorotoluene 0.100 1.00 0.100 U 1 4-Chlorotoluene 0.100 0.100 1.00 1 4-Methyl-2-pentanone 1.00 10.0 1.00 1 U Acetone 2.50 10.0 2.50 1 U Benzene 0.160 0.500 0.160 1 U Bromobenzene 0.160 1.00 0.160 U 1 Bromochloromethane 0.160 1.00 0.160 1 u Bromodichloromethane 0.160 0.500 0.160 1 u

Continents.		
		/int
		11100
QAPP 4.0	AFCEE FORM 0-2	Page 1 of 39
		lage to to

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Fleid Sample ID: TF3CE312SA Lab Sample ID: 0803106-001A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1966.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 10 mL

					- Ctall
Bromoform	0.500	1.00	0.500	1	 U
Bromomethane	0.190	3.00	0.190	1	 U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.160	0.500	0.160	1	U
Chloroethane	0.500	1.00	0.500	1	U
Chloroform	0.100	0.500	0.100	1	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1	 Ü
Dibromochloromethane	0.160	0.500	0.160	1	 U
Dibromomethane	0.160	1.00	0.160	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethylbenzene	0.100	1.00	0.100	1	U
Hexachlorobutadiene	0.500	1.00	0.500	1	 U
Isopropylbenzena	0.160	1.00	3.74	1	
Methyl tert-butyl ether	0.500	5.00	0.500	" " ₁	U
Methylene chloride	0.160	1.00	0.160	1	U
n-Butylbenzene	0.160	1.00	1.17	1	
n-Propylbenzene	0,100	1.00	5.38	1	
Naphthalene	0.500	1.00	0.500	1	 U
o-Xylene	0.160	1.00	0.160	1 1	U
p-Isopropyltoluene	0.160	1.00	0.160	1	 U
sec-Butylbenzene	0.160	1.00	2.70	1	
Styrene	0.160	1.00	0.160	1	 U
tert-Butylbenzene	0.160	1.00	0.630	1	 F
Tetrachloroethene	0.100	1.00	0.100	1	 U
Toluene	0.100	1.00	0.100	1 1	 U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1	 U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	 U
Trichloroethene	0.100	1.00	1.15	1	
Trichlorofluoromethane	0.100	1.00	0.100	1	 U
Vinyl chloride	0.500	1.00	0.500	1	U

Comments:		
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QAPP 4.0

AFCEE FORM 0-2

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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3CE312SA

Lab Sample ID:

0803106-001A

Matrix:

Groundwater

% Solids:

Q

Initial Calibration ID: 1204

File ID:

T1966.D

Date Received:

Date Extracted:

Date Analyzed: 24-Mar-08

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

21-Mar-08

Sample Size:

10 mL

Analyte -	WDE -	Ri	Concentration	Dilution	in the second of
Xylenes (total)	0.260	2.00	0.260	1	υ

EULEDSKO HELDEN		eomyollumite	Cualifier 🚞
1,2-Dichloroethane-d4	107	72 - 119	
4-Bromofluorobenzene	104	76 - 119	
Toluene-d8	111	81 - 120	

4/16/08

	Area Counts	Area count imits Cualifier
1,4-Dichlorobenzene-d4	713025	306228 - 1224912
Chlorobenzene-d5	814046	370666 - 1482666
Fluorobenzene	1826780	849584 - 3398336

Comments:		
		
QAPP 4.0	AFCEE FORM 0-2	Page 3 of 39

Analytical Method: SW8260B Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: <u>TF3M2113SA</u>

Lab Sample ID:

0803106-002A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1967.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

μg/L

Sample Size:

10 mL

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(m+p)-Xylene	0.200	4.00	0.200	2		U
1,1,1,2-Tetrachloroethane	0.500	1.00	0.500	2		U
1,1,1-Trichloroethane	0.320	2.00	0.320	2		Ü
1,1,2,2-Tetrachloroethane	0.320	1.00	0.320	2		U
1,1,2-Trichloroethane	0.500	2.00	0.500	2		U
1,1-Dichloroethane	0.320	2.00	0.320	2		U
1,1-Dichloroethene	0.500	2.00	0.500	2		U
1,1-Dichloropropene	0.500	2.00	0.500	2		U
1,2,3-Trichlorobenzene	1.00	2.00	1.00	2		U
1,2,3-Trichleropropane	2.00	4.00	2.00	2		U
1,2,4-Trichlorobenzene	; 1.00	2.00	1.00	2		U
1,2,4-Trimethylbenzene	0.320	2.00	0.320	2		U
1,2-Dibromo-3-chloropropane	5.00	10.0	5.00	2		U
1,2-Dibromoethane	0.500	2.00	0.500	2		
1,2-Dichlorobenzene	0.320	2.00	0.320	2		Ü
1,2-Dichloroethane	0.500	1.00	0.500	2		U
1,2-Dichloropropane	0.320	2.00	0.320	2		U
1,3,5-Trimethylbenzene	0.320	2.00	0.320	2		U
1,3-Dichlorobenzene	0.320	2.00	0.320	2		
1,3-Dichloropropane	0.320	1.00	0.320	2		U
1,4-Dichlorobenzene	0.320	1.00	0.320	2		U
1-Chlorohexane	0.500	2.00	0.500	2		U
2,2-Dichloropropane	1.00	2.00	1.00	2		U
2-Butanone	5.00	20.0	5.00	2		U
2-Chlorotoluene	0,200	2.00	0.200	2		U
4-Chlorotoluene	0.200	2.00	0.200	2		U
4-Methyl-2-pentanone	2.00	20.0	2.00	2		U
Acetone	5.00	20.0	5.00	2	-	Ü
Benzene	0.320	1.00	0.320	2		U
Bromobenzene	0.320	2.00	0.320	2		Ū.
Bromochloromethane	0.320	2.00	0.320	2		U
Bromodichloromethane	0.320	1.00	0.320	2		Ü

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QAPP 4.0

AFCEE FORM 0-2

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Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: TF3M2113SA Lab Sample ID: 0803106-002A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1967.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Bromoform	1.00	2.00	1.00	2		U
Bromomethane	0.380	6.00	0.380	2		U
Carbon tetrachloride	0.500	2.00	0,500	2		U
Chlorobenzene	0.320	1.00	0.320	2		
Chloroethane	1.00	2.00	1.00	2		U
Chloroform	0.200	1.00	0.200	2	-	U
Chloromethane	1.00	2.00	1.00	2		U
cis-1,2-Dichloroethene	0.320	2.00	0.320	2		U
cis-1,3-Dichloropropene	0.500	1.00	0.500	2		U
Dibromochloromethane	0.320	1.00	0.320	2		U
Dibromomethane	0.320	2.00	0.320	2		U
Dichlorodifluoromethane	0.500	2.00	0.500	2	<u> </u>	U
Ethylbenzene	0.200	2.00	0.200	2	 -	U
Hexachlorobutadiene	1,00	2.00	1.00	2		·
Isopropylbenzene	0.320	2.00	13.2	2	7.1	
Methyl tert-butyl ether	1.00	10.0	1.00	2		U
Methylene chloride	0.320	2.00	0.320	2	-	U
n-Butylbenzene	0.320	2.00	1.26	2		F
n-Propylbenzene	0.200	2.00	2.52	2	_	
Naphthalene	1.00	2.00	1.00	2		U
o-Xylene	0.320	2.00	0.320	2		u
p-Isopropyttoluene	0,320	2.00	1.04	2	•	F
sec-Butylbenzene	0.320	2.00	1.24	2		F
Styrene	0.320	2.00	0.320	2		U
tert-Butylbenzene	0.320	2.00	0.680		_	
Tetrachloroethene	0.200	2.00	0.200	2		u
Toluene	0.200	2.00	0.200	2		u
trans-1,2-Dichloroethene	0.320	2.00	0.320	2		Ü
trans-1,3-Dichloropropene	0.500	2.00	0.500	2		Ü
Trichloroethene	0.200	2.00	0.200	2	···· ·- ·	·- ·ŭ
Trichlorofluoromethane	0.200	2.00	0.200	2 —		U U
Vinyl chloride	1.00	2.00	1.00	2		-

Comments:		
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QAPP 4.0	AFCEE FORM 0-2	Page 5 of 39

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Lab Sample ID:

0803106-002A

Matrix:

Groundwater

% Solids:

0

Field Sample ID: TF3M2113SA

Initial Calibration ID: 1204

File ID:

T1967.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight);

µq/L

Sample Size:

10 mL

Analyte Trees	MeE	RL	Concentration	-Dilution: C	
Xylenes (total)	0.520	4.00	0.520	2	U

Surrogaté r	Z- Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	102	76 - 119	
Toluene-d8	103	81 - 120	

internal Std	Atea Gouris	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	709856	306228 - 1224912	
Chlorobenzene-d5	815938	370666 - 1482666	
Fluorobenzene	1875739	849584 - 3398336	

Comments:		
QAPP 4.0	AFCEE FORM 0-2	Page 6 of 39

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Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: TF3M11613SA Lab Sample ID: 0803106-003A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1968.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): μg/L Sample Size: 10 mL

(m+p)-Xylene	0.100	2.00	0,100	1	U
1,1,1,2-Tetrachloroethane	0,250	0.500	0.250	1 '	U
1,1,1-Trichloroethane	0.160	1.00	0.160	1 ;	U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1 " "	- 1
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.160	1.00	0.160	1	U
1,1-Dichloroethene	. 0.250	1.00	0.250	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.500	1.00	0,500	1	- u
1,2,3-Trichloropropane	1.00	2.00	1.00	1	U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	U
1,2,4-Trimethyfbenzene	0.160	1.00	0.160	1	U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	U
1,2-Dibromoethane	0.250	1.00	0,250	1 1	<u>u</u>
1,2-Dichlorobenzene	0.160	1.00	0.160	1 -	U
1,2-Dichloroethane	0.250	0.500	0.250	1	U
1,2-Dichloropropane	0.160	1.00	0.160	1	U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1	" U
1,3-Dichlorobenzene	0.160	1.00	0.160		
1,3-Dichloropropane	0,160	0.500	0.160	1	U
1,4-Dichlorobanzene	0.160	0.500	0.160	1	U
1-Chlorohexane	0.250	1.00	0.250	1	U
2,2-Dichloropropane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
2-Chlorotoluene	0.100	1.00	0.100	1	U
4-Chlorotoluene	0.100	1.00	0.100	1	u u
4-Methyl-2-pentanone	1.00	10.0	1.00	1	U
Acetone	2.50	10.0	2.50	1	U
Benzene	0.160	0.500	0.160		·· U
Bromobenzene	0.160	1.00	0.160	1	U
Bromochloromethane	0.160	1.00	0.160	1	U
Bromodichloromethane	0.160	0.500	0.160	1	U

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Comments:		
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QAPP 4.0	AFCEE FORM O-2	Page 7 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M11613SA Lab Sample ID: 0803106-003A Matrix: Groundwater

% Solids; 0 Initial Calibration ID: 1204 File ID: T1968.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1		Ü
Chloromethane	0.500	1.00	0.500	1 1		U
cls-1,2-Dichloroethene	0.160	1.00	0.160	1	_	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.100	1		U
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	. 0.160	1.00	10.7	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		- <u>-</u>
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	1.59	1 "		
n-Propylbenzene	0.100	1.00	8.17	1		1
Naphthalene	0.500	1.00	0.500	1		U
o-Xylene	0.160	1.00	0.160	1		
p-Isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	7.79	1 1		
Styrene	0.160	1,00	0.160	1		U
tert-Butylbenzene	0.160	1.00	2.03	1		
Tetrachloroethane	0.100	1,00	0.100	1		U
Toluene	0.100	1.00	0.100	1		: - Ŭ
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		i U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U U
Trichloroethene	0,100	1.00	0.100	1		U
Trichlorofluoromethane	0.100	1.00	0.100	1		<u>~</u>
Vinyl chloride	0.500	1.00	0.500	1	_	U U

10.91	0.000	0.500			U
Comments:			,		
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QAPP 4.0	AFCEE FORM 0-2	2	-	Page 8 of 3	9

Analytical Method: SW8260B

Field Sample ID:

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-003A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

T1968.D

Date Received:

21-Mar-08

Date Extracted:

Lab Sample ID:

Date Analyzed: 24-Mar-08

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

TF3M11613SA

Sample Size:

<u>10 mL</u>

		RL	Concentration	Dilution	Centing (Qualifier E
Xylenes (total)	0.260	2.00	0,260	1	U

Surrogate	Recovery	eomoi unie Quante-	
1,2-Dichloroethane-d4	106	72 - 119	443414
4-Bromofluorobenzene	99	76 - 119	
Toluene-d8	116	81 - 120	

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litena sta	Area Counts	Area Count Limis	Qualifier
1,4-Dichlorobenzene-d4	722132	306228 - 1224912	
Chlorobenzene-d5	859847	370666 - 1482666	
Fluorobenzene	1890124	849584 - 3398336	

Comments:		
-		
QAPP 4.0	AFCEE FORM 0-2	Page 9 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Fleid Sample ID: TF3M11710SA Lab Sample ID: 0803106-004A Matrix: Groundwater

% Solids: Q initial Calibration ID: 1204 File ID: T1969.D

Date Received: 21-Mar-08 **Date Extracted:** Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): μg/L Sample Size: 10 mL

(m+p)-Xylene	0.100	2.00	0.100	1	223000000000000000000000000000000000000	U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	i		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		Ü
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1,00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	i	Ų Ū
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,4-Trimethylbenzens	0.160	1.00	0.160	1	Ì	U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	_	_U · · ·
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	. 1		U
1,2-Dichloropropane	0.160	1.00	0.160	. 1		ı U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0,250	1.00	0.250	1	<u> </u>	U
2,2-Dichloropropane	0.500	1.00	0.500	1		-
2-Butanone	2,50	10.0	2.50	1	 	U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	i		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	1 2.50	10.0	2.50	1		
Benzene	0.160	0.500	0.160	1		Ü
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		- Ū
Bromodichloromethane	0.160	0.500	0.160	1		T U

Comments:		
		- cust
		<u> </u>
QAPP 4.0	AFCEE FORM 0-2	Page 10 of 39

AFCEE FORM 0-2 Page 10 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

% Solids:

Field Sample ID: TF3M11710SA Lab Sample ID: 0803106-004A Matrix: Groundwater

0 initial Calibration ID: 1204 File ID: T1969.D Date Received: Date Extracted: 21-Mar-08 Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Analyte				Dilution	Continu	ellaine,
Bromoform	0.500	1.00	0.500	1 1		U
Bromomethane	0.190	3.00	0.190	1		Ų U
Carbon tetrachlonde	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1 1		υ .
cis-1,2-Dichloroethene	0.160	1.00	0.190	1		F
cis-1,3-Dichloropropens	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.100	1	-	U
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	0.160	1.00	0.780	1		F
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.160	1		U
n-Propylbenzene	0.100	1.00	0.100	1		U
Naphthalene	0,500	1.00	0.500	1		U
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	0.160	1		U
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	1.72	1		<u> </u>
Tetrachloroethene	0.100	1.00	0.100	1		Ü
Toluene	0.100	1.00	0.100	1	-	U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1 1		U
Trichloroethene	0.100	1.00	0.100	1 :	·	: U
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U

Vinyl chlorid	le	0.500	1.00	0.500	1	-	U
Comments:							·
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	T				_ .		- 4/16/08
QAPP 4.0	-	AFC	CEE FORM 0-2			Page 11 of	11 /

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #: Lab Sample ID:

Matrix:

0803106-004A

Groundwater

% Solids:

Field Sample ID: TF3M11710SA

T1969.D

0

initial Calibration ID: 1204

File ID:

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

<u>µg/L</u>

Sample Size:

10 mL

SALE PROPERTY OF THE PROPERTY	MDE		Concentration	部版 9.11 1 (CO) 1 ME	Confirm	ece meet
Xylenes (total)	0.260	2.00	0.260	1	5000	U

Surogale	Recovery	ControlLimits	Qraine;
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	113	81 - 120	

internal Ste	Area Counts	Area Count linits	e valairie e
1,4-Dichlorobenzene-d4	735795	306228 - 1224912	
Chlorobenzene-d5	873886	370666 - 1482666	
Fluorobenzene	1939391	849584 - 3398336	

Comments:			

QAPP 4.0

AFCEE FORM O-2

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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: <u>TF3M12313SA</u>

0803106-005A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1212

File ID:

M4730.D

Date Received:

Lab Sample ID:

Date Analyzed:

28-Mar-08

21-Mar-08

Date Extracted:

Sample Size:

25 mL

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

			Consult (in)			
(m+p)-Xylene	0.200	4.00	0.200	2		Ü
1,1,1,2-Tetrachloroethane	0.500	1.00	0.500	2		U
1,1,1-Trichloroethane	0.320	2.00	0.320	2		U
1,1,2,2-Tetrachloroethane	0.320	1.00	0.320	2		U
1,1,2-Trichloroethane	0.500	2.00	0.500	2		U
1,1-Dichloroethane	0.320	2.00	0.320	2		U
1,1-Dichloroethene	0.500	2.00	0.500	2		U
1,1-Dichloropropene	0.500	2.00	0.500	2	_	U
1,2,3-Trichlorobenzene	1.00	2.00	1.00	2		ับ
1,2,3-Trichloropropane	2.00	4.00	2.00	2		U
1,2,4-Trichlorobenzene	1.00	2.00	1.00	2		U
1,2,4-Trimethylbenzene	0.320	2.00	11.4	2		
1,2-Dibromo-3-chloropropane	5.00	10.0	5.00	2		U
1,2-Dibromoethane	0.500	2.00	0.500	2		U
1,2-Dichlorobenzene	0.320	2.00	0.320	2		U
1,2-Dichloroethane	0.500	1.00	0.500	2		U
1,2-Dichloropropane	0.320	2.00	0.320	2		U
1,3,5-Trimethylbenzene	0.320	2.00	2.94	2		
1,3-Dichlorobenzene	0.320	2.00	0.320	2		U
1,3-Dichloropropane	0.320	1.00	0.320	2		U
1,4-Dichlorobenzene	0.320	1.00	0.320	2		U
1-Chlorohexane	0.500	2.00	0.500	2		U
2,2-Dichloropropane	1.00	2.00	1.00	2		U
2-Butanone	5.00	20.0	5.00	2		UM
2-Chlorotoluene	0.200	2.00	0.200	2		Ľ
4-Chlorotoluene	0.200	2.00	0.200	2		U
4-Methyl-2-pentanone	2.00	20.0	2.00	2		UM
Acelone	5.00	20.0	5.00	2		UM
Benzene	0.320	1.00	0.320	2		U
Bromobenzene	0.320	2.00	0.320	2		U
Bromochloromethane	0.320	2.00	0.320	2		IJ
Bromodichloromethane	0.320	1.00	0.320	2		U

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QAPP 4.0

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Analytical Method: SW8260B Preparatory Method: AAB #: R13111

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SA Lab Sample ID: 0803106-005A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1212 File ID: M4730.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 28-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 25 ml

				Eliteri		P.C.
Bromoroim	1.00	2.00	1.00	2		υ
Bromomethane	0.380	6.00	0.380	2		U
Carbon tetrachloride	0.500	2.00	0.500	2		Û
Chlorobenzene	0.320	1.00	0.320	2		U
Chloroethane	1.00	2.00	1.00	2		U
Chloroform	0.200	1.00	0.200	2		U
Chloromethane	1.00	2.00	1.00	2		U
cis-1,2-Dichloroethene	0.320	2.00	0.320	2		Ū
cis-1,3-Dichloropropene	0.500	1.00	0.500	2	-	U
Dibromochloromethane	0.320	1.00	0.320	2		U
Dibromomethane	0.320	2.00 ,	0.320	2		U
Dichlorodifluoromethane	0.500	2.00	0.500	2		U
Ethylbenzene	0.200	2.00	0.200	2		~ ū
Hexachlorobutadiene	1.00	2.00	1.00	2		U
Isopropylbenzene	0.320	2.00	63.9	2		
Methyl tert-butyl ether	1.00	10.0	1.00	2		U
Methylene chloride	0.320	2.00	0.320	2		Ü
n-Butylbenzene	0.320	2.00	2.20	2		
n-Propylbenzene	0.200	2.00	7.22	2		1/5/
Naphthalene	1.00	2.00	1.00	2		U
о-Хујепе	0.320	2.00	0.320	2		Ū
p-Isopropyltoluene	0.320	2.00	1.92	2		E
sec-Butylbenzene	0.320	2.00	1.84	2		F.
Styrene	0.320	2.00	0.320	2		U
tert-Butylbenzene	0.320	2.00	0.320	2		U
Tetrachloroethene	0.200	2.00	0.200	2		Ü
Toluene	0.200	2.00	0.200	2	-	U
trans-1,2-Dichloroethene	0,320	2.00	0.320	2		Ü
trans-1,3-Dichloropropene	0.500	2.00	0.500	2	·	U
Trichloroethene	0.200	2.00	0.200	2		U
Trichlorofluoromethane	0.200	2.00	0.200	2		U
Vinyl chloride	1.00	2.00	1.00	2		u

Comments:

QAPP 4.0

AFCEE FORM O-2

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WAT 4/16/08

Analytical Method: SW8260B

Field Sample ID:

TF3M12313SA

Preparatory Method:

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1212

File ID:

M4730.D

Date Received:

Lab Sample ID:

Date Analyzed:

28-Mar-08

21-Mar-08 Concentration Units (ug/L or mg/Kg dry weight):

Date Extracted:

<u>μα/L</u>

Sample Size:

25 mL

Analyte	# MDI	RE	Concentration	Dilution	Comini	
Xylenes (total)	0.520	4.00	0.520	2		υ

0803106-005A

Surrogate	Recovery	Control Limits Qualifier
1,2-Dichloroethane-d4	115	72 - 119
4-Bromofluorobenzene	116	76 - 119
Toluene-d8	115	81 - 120

4/16/08

internal Su	Area Counts	Area Count Limits : 8	Qualifier
1,4-Dichlorobenzene-d4	1917740	992054 - 3968218	
Chlorobenzene-d5	2981 066	1470392 - 5881570	,1
Fluorobenzene	5863087	2867034 - 11468136	

Comments:			
	 <u> </u>	 	
	 	 <u> </u>	
	 	 	

QAPP 4.0

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Analytical Method: SW8260B Preparatory Method: AAB #: R13111

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SA Lab Sample ID: 0803106-005AMS Matrix: Aqueous

% Solids: 0 Initial Calibration ID: 1212 File ID: M4726.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 28-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 25 mL

			Convenience		
(m+p)-Xylene	0.200	4.00	41.6	. 2	
1,1,1,2-Tetrachloroethane	0.500	1.00	21.3	2	
1,1,1-Trichloroethane	0.320	2.00	19.3	2	
1,1,2,2-Tetrachloroethane	0.320	1.00	21.4	2	
1,1,2-Trichloroethane	0,500	2.00	23,8	2	
1,1-Dichloroethane	0.320	2.00	22.2	2	
1,1-Dichloroethene	0.500	2.00	23.5	2	
1,1-Dichloropropene	0,500	2.00	19.6	2	
1,2,3-Trichlorobenzene	1.00	2.00	20.1	2	
1,2,3-Trichloropropane	2.00	4.00	18.8	2	
1,2,4-Trichlorobenzene	1.00	2.00	20.3	2	
1,2,4-Trimethylbenzene	0.320	2.00	31.2		
1,2-Dibromo-3-chloropropane	5.00	10.0	21.4	2	
1,2-Dibromoethane	0.500	2.00	21.9	2	
1,2-Dichlorobenzeле	0.320	2.00	21.1	2	
1,2-Dichloroethane	0.500	1.00	21.5	2	
1,2-Dichloropropane	0.320	2.00	21.6	2	
1,3,5-Trimethylbenzene	0.320	2.00	26.2	2	
1,3-Dichlorobenzene	0.320	2.00	21.8	2	
1,3-Dichloropropane	0.320	1.00	21.4	2	
1,4-Dichlorobenzene	0.320	1.00	21,2	2	
1-Chlorohexane	0.500	2.00	20.2	2	-
2,2-Dichloropropane	1.00	2.00	20.0	. 2	
2-Butanone	5.00	20.0	86.9	2	M
2-Chlorotoluene	0.200	2,00	20.6	2	
4-Chlorotoluene	0.200	2.00	23.2	2	
4-Methyl-2-pentanone	2.00	20.0	61.7	2	M
Acetone	5.00	20.0	90.1		M
Benzene	0.320	1.00	22.1	2	
Bromobenzene	0.320	2.00	20.3	2	
Bromochloromethane	0.320	2.00	20.5	2	
Bromodichloromethane	0.320	1.00	21.3	2	

Comments:			
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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SC

Lab Sample 1D:

0803106-006A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1970.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

µg/L

Sample Size:

<u>10 mL</u>

Analyte						
(m+p)-Xylene	0.200	4.00	0.200	2	Hitti South All Allens	U
1,1,1,2-Tetrachioroethane	0.500	1.00	0.500	2		ŭ
1,1,1-Trichloroethane	0.320	2.00	0.320	2		U
1,1,2,2-Tetrachloroethane	0.320	1.00	0.320	2		U
1,1,2-Trichloroethane	0.500	2.00	0.500	2		U
1,1-Dichloroethane	0.320	2.00	0.320	2		<u>u</u>
1,1-Dichloroethene	0.500	2.00	0.500	2		U
1,1-Dichloropropene	0.500	2.00	0.500	2		U
1,2,3-Trichlorobenzene	1.00	2.00	1.00	2		U
1,2,3-Trichloropropane	2.00	4.00	2.00	2		 u
1,2,4-Trichlorobenzene	1.00	2.00	1.00	2		ŭ
1,2,4-Trimethylbenzene	0.320	2.00	9.56	2		+
1,2-Dibromo-3-chloropropane	5.00	10.0	5.00	2		u
1,2-Dibromoethane	0.500	2.00	0.500	2		U
1,2-Dichlorobenzene	0.320	2.00	0.320	2		 u
1,2-Dichloroethane	0.500	1,00	0.500	2		j
1,2-Dichloropropane	0.320	2.00	0.320	2		U
1,3,5-Trimethylbenzene	0.320	2.00	2.16	2		1571
1,3-Dichlorobenzene	0.320	2.00	0.320	2 !		U
1,3-Dichloropropane	0.320	1.00	0.320	2 1		U
1,4-Dichlorobenzene	0.320	1.00	0.320	2		' U
1-Chlorohexane	0.500	2.00	0.500	2		<u>u</u>
2,2-Dichloropropane	1.00	2.00	1,00	2	• •	<u>u</u>
2-Butanone	5.00	20.0	5.00	2		Mu
2-Chlorotoluene	0.200	2.00	0.200	2		i U
4-Chlorotoluene	0.200	2.00	0.200	2		
4-Methyl-2-pentanone	2.00	20.0	2.00	2		UM.
Acetone	5.00	20.0	5.00	2		U M
Benzene	0.320	1.00	0.320	2	·	U
Bromobenzene	0.320	2.00	0.320	2	·	U
Bromochloromethane	0.320	2.00	0.320	2	-	— ŭ =
Bromodichloromethane	0.320	1.00	0.320	2		- U

Comments:

QAPP 4.0

AFCEE FORM 0-2

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Analytical Method: SW8260B Preparatory Method: AAB #: R13111

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SA Lab Sample ID: 0803106-005AMSD Matrix: Aqueous

% Solids: 0 Initial Calibration ID: 1212 File ID: M4727.0

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 28-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 25 mL

Analyte		RL	Concentration	Dijutio		Gonting - othical
Xylenes (total)	0.520	4.00	64.9	2	1	i

Surregate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	109	76 - 119	
Toluene-d8	110	B1 - 120	,

The Train State of the State of	Area Couris	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1952252	992054 - 3968218	
Chloroberizene-d5	2870196	1470392 - 5881570	
Fluorobenzene	5529068	2867034 - 11468136	

Comments:				
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Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SC Lab Sample ID: 0803106-006A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: 11970.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 10 mL

Bramoform	1.00	2.00	1.00	2	U
Bromomethane	0.380	6.00	0.380	2	U
Carbon tetrachloride	0.500	2.00	0.500	2	U
Chlorobenzene	0.320	1.00	0.320	2	U
Chloroethane	1.00	2.00	1.00	2	U
Chloroform	0.200	1.00	0.200	2 -:	U
Chloromethane	1.00	2.00	1.00	2	Ü
cis-1,2-Dichloroethene	0.320	2.00	0.320	2 .	U
cis-1,3-Dichloropropene	0.500	1.00	0.500	2	U
Dibromochloromethane	0.320	1.00	0.320	2	U
Dibromomethane	0.320	2.00	0.320	2	υ
Dichlorodifluoromethane	0.500	2.00	0.500	2	U
Ethylbenzene	0.200	2.00	0.200	2	U
Hexachlorobutadiene	: 1.00	2.00	1.00	2	U
Isopropylbenzene	0.320	2.00	52.6	2	
Methyl tert-butyl ether	1.00	10.0	1.00	2	U
Methylene chloride	0.320	2.00	0.320	2	U
n-Butylbanzene	0.320	2.00	1.06	2	F
n-Propylbenzene	0.200	2.00	5.62	2	7
Naphthalene	1.00	2.00	1.00	2	U
o-Xylene	0.320	2.00	0.320	2	U
p-Isopropyltoluene	0.320	2.00	1.20	2	F
sec-Butylbenzene	0.320	2.00	1.02	2	F
Styrene	0.320	2.00	0.320	2	U
tert-Butylbenzene	0.320	2.00	1.00	2	F
Tetrachloroethene	0.200	2.00	0.200	2	U
Toluene	0.200	2.00	0.200	2	U
trans-1,2-Dichloroethene	0.320	2.00	0.320	2	U
trans-1,3-Dichloropropene	0.500	2.00	0.500	2	U
Trichloroethene	0.200	2.00	0.200	2	
Trichloroftuoromethane	0.200	2.00	0.200	2	U
Vinyl chloride	1.00	2.00	1.00	2	- U

Comments:		-
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QAPP 4.0	AFCEE FORM 0-2	Page 23 of 39

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Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Matrix:

Groundwater

% Solids:

0

Field Sample ID: <u>TF3M12313SC</u>

Initial Calibration ID: 1204

File ID:

T1970.D

Date Received:

Date Analyzed:

24-Mar-08

21-Mar-08

Date Extracted:

Lab Sample ID:

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

Sample Size:

10 mL

	MDL	RESIDEN	Concentration	S)Integral	
Xylenes (total)	0.520	4.00	0.520	2	U

0803106-006A

\$urrogate \$	Recovery	៨ ១០៧០ ម៉ោ	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	101	76 - 119	
Toluene-d8	104	81 - 120	

internal Std	Area Galine	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	745650	306226 - 1224912
Chlorobenzene-d5	831035	370666 - 1482666
Fluorobenzene	1937094	649584 - 3398336

Comments:				
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			-	

QAPP 4.0

AFCEE FORM 0-2

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Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Fleid Sample ID: TF3M12613SA Lab Sample ID: 0803106-007A Matrix: Groundwater

% Solids: 0 Initial Callbration ID: 1204 File ID: T1971.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Aralyte		# W:T			
(m+p)-Xylene	0.100	2.00	0.100	1	U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1	U
1,1,1-Trichloroethane	0.160	1.00	0.160	1	U
1,1,2,2-Tetrachloroethane	0,160	0.500	0.160	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.160	1.00	0.160	1	U
1,1-Dichloroethene	0.250	1.00	0.250	1	Ü
1,1-Dichloropropene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0,500	1.00	0.500	1	U
1,2,3-Trichloropropane	1,00	2.00	1.00	1	U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	υ υ
1,2,4-Trimethylbenzene	. 0.160	1.00	0.160	1	U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.160	1.00	0.160	1	U
1,2-Dichloroethane	0.250	0.500	0.250	1	U
1,2-Dichloropropane	0.160	1.00	0.160	1	U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1	U
1,3-Dichlorobenzene	0.160	1.00	0.160	1	Ü
1,3-Dichloropropane	0.160	0.500	0.160	1	U
1,4-Dichlorobenzene	0.160	0.500	0,160	1	Ü
1-Chlorohexane	0.250	1.00	0,250	1	U
2,2-Dichloropropane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
2-Chlorotoluene	0.100	1.00	0.100	1	U
4-Chlorotoluene	0.100	1.00	0.100	1	U
4-Methyl-2-pentanone	1.00	10.0	1.00	1	U
Acetone	2.50	10.0	2.50	1	U
Benzene	0.160	0.500	0.160	1	U
Bromobenzene	0.160	1.00	0.160	1	; U
Bromochloromethane	0.160	1.00	0.160	1	U
Bromodichloromethane	0.160	0.500	0.160	1	U

Comments:			
 -			
			rank
			1414 108
QAPP 4.0	AFCEF FORM 0-2	Page 25 of 39	4/16/00

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: <u>TF3M12613SA</u>

Lab Sample ID:

0803106-007A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

T1971.D

Date Received:

Date Analyzed:

21-Mar-08

Date Extracted:

24-Mar-08

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

ug/L

Sample Size:

<u>10 mL</u>

Bromoform	0.500	1.00	0.500	1	U
Bromomethane	: 0.190	3.00	0.190	1	U
Carbon tetrachloride	0.250	1.00	0.250	.1	U
Chlorobenzene	0.160	0.500	0.160	1	U
Chloroethane	0.500	1.00	0.500	1	Ü
Chloroform	0.100	0.500	0.100	1	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1	U
Dibromochloromethane	0.160	0.500	0.160	1 .	U
Dibromomethane	0.160	1.00	0.160	1 ;	U
Dichlorodifluoromethane	0.250	1.00	0.250	1 i	U
Ethylbenzene	0.100	1.00	0.100	1	U
Hexachlorobutadiene	0.500	1.00	0.500	1	U
Isopropylbenzene	. 0.160	1.00	0.160	: 1	U
Methyl tert-butyl ether	0.500	5.00	0.500	. 1	U
Methylene chloride	0.160	1.00	0.160	1 1	U
п-Butylbenzene	0.160	1.00	0.160	1	
n-Propylbenzene	0.100	1.00	0.100	1	U
Naphthalene	0.500	1.00	0.500	1	U
o-Xylene	0.160	1.00	0.160	1	U
p-Isopropyttoluene	0.160	1.00	0.160	1	U
sec-Butylbenzane	0.160	1.00	1.97	1	
Styrene	0.160	1.00	0,160	1	U
tert-Butylbenzene	0.160	1.00	0.610	1	F
Tetrachloroethene	0.100	1.00	0.100	1	i U
Toluene	0.100	1.00	0.100	1	
trans-1,2-Dichloroethene	0,160	1.00	0.160	1	
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	U
Trichloroethene	0.100	1.00	0.100	1	U
Trichlorofluoromethane	0.100	1.00	0.100	1	
Vinyl chloride	0.500	1.00	0.500	1	

Comm	ents:
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QAPP 4.0

AFCEE FORM 0-2

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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-007A

Matrix:

Groundwater

% Solids:

Q

Initial Calibration ID: 1204

File ID:

T1971.D

Field Sample ID:

Date Received:

21-Mar-08

TF3M12613SA

Date Extracted:

Lab Sample ID:

Date Analyzed: 24-Mar-08

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

µg/L

10 mL Sample Size:

(Analyte MD) RI ... Concentration ... Dilution Confirm ... Citalities ...

Xylenes (total)	0.260	2.00	0.260	1	311111111111111111111111111111111111111	U
						_
					i Operation and the	

Surroggie	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	104	72 - 119	
4-Bromofluorobenzene	104	76 - 119	
Toluene-d8	110	81 - 120	

nierial Side	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	721397	306228 - 1224912	
Chlorobenzene-d5	844654	370666 - 1482666	
Fluorobenzene	1901815	849584 - 3398336	

Comments:		
QAPP 4.0	AECEE FORM O 2	Book 27 of 20
Q07(11 4.0	AFCEE FORM 0-2	Page 27 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13066

Lab Name: Life Science Laboratories, Inc. Contract #:

Fleid Sample ID: TF3M12712SA Lab Sample ID: 0803106-008A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1991.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 25-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L 10 mL Sample Size:

Analyte						
(m+p)-Xylene	0.100	2.00	12.3	1		
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		υ
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1 !		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0,250	1.00	0,250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1 [U
1,2,3-Trichlorobenzene	, 0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1 1		U
1,2,4-Trimethylbanzene	0,160	1.00	14.5	1 1		
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1	-	U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		u
1,2-Dichloropropane	0.160	1.00	0.160	1	_	U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1	_	U
1,3-Dichloropropane	0.160	0.500	0.160	1 1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		υ
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		υ
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1	•	U
4-Chlorotoluene	0.100	1.00	0.100	1 +		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		" U
Acetone	2.50	10.0	2.50	. 1		U
Benzene	0.160	0.500	0.730	1		
Bromobenzene	0.160	1.00	0.160	i		U
Bromochloromethane	0.160	1.00	0.160	1		ט "
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:		
		n.A.
		4/10/00
QAPP 4.0	AFCEE FORM 0-2	Page 28 of 39

AFCEE FORM 0-2 Page 28 of 39

Sample Size:

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10 mL

Analytical Method: SW6260B Preparatory Method: AAB #: R13066

Lab Name: Life Science Laboratories, Inc. Contract #:

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

The state of the s

Toluene

Trichloroethene

Vinyl chloride

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichlorofluoromethane

Field Sample ID: TF3M12712SA Lab Sample ID: 0803106-008A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1991.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 25-Mar-08

µq/L

0.100

0.160

0.250

0.100

0.100

0.500

Bromoform 0.500 1.00 0.500 1 **Bromomethane** 0.190 3.00 0.190 1 U Carbon tetrachloride 0.250 1.00 0.250 1 U Chlorobenzene 0.160 0.500 0.160 1 U Chloroethane 0.500 1.00 0.500 1 U Chloroform 0.100 0.500 0.100 U 1 Chloromethane 0.500 1.00 0.500 1 U cis-1,2-Dichloroethene 0.160 1,00 0.160 1 П cis-1,3-Dichloropropene 0.250 0.500 0.250 1 U Dibromochloromethane 0.160 0.500 0.160 1 U Dibromomethane 0.160 1.00 0.160 υ 1 Dichlorodifluoromethane 0.250 1.00 0.250 U 1 Ethylbenzene 0.100 1.00 1 15.6 Hexachlorobutadiene 0.500 1.00 0.500 1 U Isopropylbenzene 0.160 1,00 3.79 1 Methyl tert-butyl ether 0.500 5.00 0.500 1 U Methylene chloride 0.160 1,00 0.160 1 U n-Butylbenzene 0.160 1.00 0.160 1 Ū n-Propylbenzene 0.100 1.00 3.39 1 Naphthalene 0.500 1.00 3.83 1 o-Xylene 0.160 1.00 0.160 U p-Isopropyltoluene 0.160 1.00 0.400 1 F sec-Butylbenzene 0.160 1.00 0.260 1 Styrene 0.160 1.00 0.160 1 U tert-Butylbenzene 0.160 1.00 0.160 U 1 Tetrachloroethene 0.100 1.00 0.100 1 U

Comments:		
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		4/16/0°
QAPP 4.0	AFCEE FORM 0-2	Page 29 of 39

0.100

0.160

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0.100

0,500

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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #: Lab Sample ID:

0803106-008A Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

T1991.D

Fleid Sample ID:

Date Received:

21-Mar-08

IF3M12712SA

Date Extracted:

Date Analyzed:

25-Mar-08

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

μg/L

Sample Size:

10 mL

Analyte	MDL RL: Concentration Dilation Confirm Qualifier
Xylenes (total)	0.260 2.00 12.3 1

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	111	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	103	81 - 120	

	Area Courts	Areastatins sinis	Qualifier
1,4-Dichlorobenzene-d4	714543	306228 - 1224912	
Chlorobenzene-d5	785982	370666 - 1482666	
Fluorobenzene	1750969	849584 - 3398336	

Comments:					
	-			 -	

QAPP 4.0

AFCEE FORM 0-2

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Date Analyzed: 24-Mar-08

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

21-Mar-08

Date Received:

Field Sample ID: TF3M12813SA Lab Sample ID: 0803106-009A Matrix: Groundwater

% Solids: Initial Calibration ID: 1204 File ID: T1973.D

Date Extracted: 10 mL Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size:

	MDL	RL	coiente la	e jiri ej		
(m+p)-Xylene	0.100	2.00	0.380	1		F
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		Ü
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,4-Trîmethylbenzene	0.160	1.00	0.640	1	·	F
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	, 0.160	1.00	0.160	1		ט "
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		Ū
2-Chlorotoluene	0.100	1.00	0.100	1	-	U
4-Chlorotoluene	0.100	1.00	0.100	1		υ
4-Mathyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0,160	1		U
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0,160	1		U

Comments:		
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		4/16/08
QAPP 4.0	AFCEE FORM 0-2	Page 31 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Fleid Sample ID: TF3M12813SA Lab Sample ID: 0803106-009A Matrix: Groundwater

% Solids: Q Initial Calibration ID: 1204 File ID: T1973.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		υ
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	" 1 "		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1 '		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1,00	0.630	1		F
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	0.160	1.00	0.390	1		F
Methyl tert-butyl ether	0.500	5.00	0.500	1 📑		υ
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.160	1		U
n-Propylbenzene	0.100	1.00	0,260	1		F
Naphthalene	0.500	1.00	0.680	1		F
o-Xylene	0.160	1.00	0.160	1 1		U
p-Isopropyltoluene	0.160	1.00	0.160	1		Ū
sec-Butylbenzene	0.160	1.00	0,160	1		U
Styrene	0.160	1.00	0.160	1 1		U
tert-Butylbenzene	0.160	1.00	0.160	1		u
Tetrachloroethene	0.100	1.00	0.100	1		Ü
Toluene	0.100	1.00	0.100	1 -1		; U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		ü
Trichlomethene	0.100	1.00	0.100	1	· -	u
Trichlorofluoromethane	0.100	1.00	0.100	1		ū
Vinyl chloride	0.500	1.00	0.500	1		Ü

Thry Choride	0.00 1.00	0.500	, , ,	0
Comments:				
	<u> </u>			- cust
				4/108
QAPP 4.0	AFCEE FORM 0-2			Page 32 of 39

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Fleid Sample ID: TF3M12813SA Lab Sample ID:

0803106-009A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

RL Concentration Dilution Confirm

T1973.D

Date Received:

Date Analyzed:

24-Mar-08

Xylenes (total)

21-Mar-08

Date Extracted:

Sample Size:

<u>10 mL</u>

Concentration Units (ug/L or mg/Kg dry weight): <u>pg/L</u>	=
---	---

WDL .

tot	al)	0.260	200	0.3		1		
,								
	Surcciale		Re	covery	Contr	y Limits	Qualifier	
	1,2-Dichloroethane-d4			107	72	- 119		

1,2-Dichloroethane-d4 107 4-Bromofluorobenzene 101 Toluene-d8 103	Control limits Gualifier
	72 - 119
Toluena di	76 - 119
Toluene-d8	81 - 120

Qualifier

Internal Stat	Area Counts	Area Count limits	Qualmer
1,4-Dichlorobenzene-d4	711486	306228 - 1224912	
Chlorobenzene-d5	827511	370666 - 1482666	
Fluorobenzene	1885202	849584 - 3398336	

Comments:		
n		
QAPP 4.0	AFCEE FORM 0-2	Page 33 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Fleld Sample ID: TF3M13315SA Lab Sample ID: 0803106-010A Matrix: Groundwater

% Solids: 0 InItial Calibration ID: 1204 File ID: T1974.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 10 mL

Apayte 4						
(m+p)-Xylene	0.100	2.00	0.590	1		F
1,1,1,2-Tetrachloroethane	0.250	0.500	0,250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		u
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1	:	U
1,1-Dichloropropene	0.250	1.00	0.250	1	-	U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		u
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	1	υ
1,2,4-Trimethylbenzene	0.160	1.00	16.2	1		
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	 	U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1	<u> </u>	U
1,2-Dichloroethane	0.250	0.500	0.250	· 1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1,00	0,160	1		Ū
1,3-Dichloropropane	0.160	0,500	0,160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexana	0.250	1.00	0.250	1 1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		Ū -
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1	- -	U
4-Chlorotoluene	0.100	1.00	0.100	1	:	U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2,50	1	i	υ
Benzene	: 0.160	0.500	0,160	1	 -	- U
Bromobenzene	0.160	1.00	0.160	1	 	Ü
Bromochloromethane	0.160	1.00	0.160	1		υ
Bromodichloromethane	0.160	0.500	0.160		_	

Comments:			
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			 4/16/08
QAPP 4.0	Α	FCEE FORM O-2	Page 34 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M13315SA Lab Sample ID: 0803106-010A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1974.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Apalyte					
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.190	3.00	0.190	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.160	0.500	0.160	1	U
Chloroethans	0.500	1.00	0.500	1	U
Chloroform	0.100	0.500	0.100	1 1	u
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1	U
Dibromochloromethane	0.160	0.500	0.160	1	U
Dibromomethane	0.160	1.00	0.160	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethylbenzene	0.100	1,00	0.240	1	F
Hexachlorobutadiene	0.500	1.00	0.500	1	U
Isopropyibenzene	0.160	1.00	8.70	1	
Methyl tert-butyl ether	0.500	5.00	0.500	1	U
Methylene chloride	0.160	1.00	0.160	1	U
n-Butylbenzene	0.160	1.00	0.960	1 1	F
n-Propylbenzene	0.100	1.00	9.23	1 1	
Naphthalene	0.500	1.00	1.69	1	
o-Xylene	, 0.160	1.00	0.160	1	U
p-Isopropyttoluene	0.160	1.00	1.98	1	
sec-Butylbenzene	0.160	1.00	4.31	1	
Styrene	0.160	1.00	0.160	1	U
tert-Butylbenzene	0.160	1.00	0.640	1	F
Tetrachloroethene	0.100	1.00	0.100	1	U
Toluene	0.100	1.00	0.100	1 1	U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1"	U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1 -	U
Trichloroethene	0.100	1.00	0.100	1 1	U
Trichlorofluoromethane	0,100	1.00	0.100	1	
Vinyl chloride	0.500	1.00	0.500	1	- U

Comments:	
	out
	111108
	9/10/

QAPP 4.0 AFCEE FORM O-2 Page 35 of 39

Analytical Method: SW6260B Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc. Contract #:

TF3M13315SA

Lab Sample ID:

0803106-010A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

T1974.D

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

<u>µg/L</u>

Sample Size:

<u>10 mL</u>

Analyte Analyte	Mole	RL	Concentrati	on Dilation	onimie le le continue
Xylenes (total)	0.260	2.00	0.590	1	F

Surrogate	Recovery	Contro Limite Cualifier
1,2-Dichloroethane-d4	102	72 - 119
4-Bromofluorobenzene	99	76 - 119
Toluene-d8	108	81 - 120

Internal Std. Area Counts Area Count Limits Qualitier				
1,4-Dichlorobenzene-d4	726032	306228 - 1224912		
Chlorobenzene-d5	835070	370666 - 1482666		
Fluorobenzene	1896765	849584 - 3398336		

Comments:

QAPP 4.0

AFCEE FORM 0-2

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Sample Size:

10 mL

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

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

Bromochloromethane

Bromodichloromethane

Fleid Sample ID: TF3M13315SC Lab Sample ID: 0803106-011A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1975.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

µq/L

(m+p)-Xylene 0.100 2.00 0.700 1 F 1,1,1,2-Tetrachloroethane 0.250 0.500 0.250 1 U 1,1,1-Trichloroethane 0.160 1.00 0,160 1 U 1,1,2,2-Tetrachloroethane 0.160 0.500 0.160 1 U 1,1,2-Trichloroethane 0.250 1.00 0.250 1 U 1,1-Dichloroethane 0.160 1.00 0.160 1 U 1,1-Dichloroethene 0.250 1.00 0.250 U 1,1-Dichloropropene 0.250 0.250 1.00 1 u 1,2,3-Trichlorobenzene 0.500 1.00 0.500 1 U 1,2,3-Trichloropropane 1.00 2.00 1.00 1 Ū 1,2,4-Trichlorobenzene 0.500 1.00 0.500 1 U 1,2,4-Trimethylbenzene 0.160 1.00 18.2 1 1,2-Dibromo-3-chloropropane 2.50 5.00 2.50 1 U 1,2-Dibromoethane 0.250 1.00 0.250 1 U 1,2-Dichlorobenzene 0.160 1.00 0.160 1 Ū 1,2-Dichloroethane 0.250 0.500 0.250 1 U 1,2-Dichloropropane 0.160 1.00 0.160 1 U 1,3,5-Trimethylbenzene 0.160 1.00 0.160 1 U 1,3-Dichlorobenzene 0.160 1.00 0.160 1 U 1,3-Dichloropropane 0.160 0.500 0.160 1 U 1,4-Dichlorobenzene 0.160 0.500 0.160 1 υ 1-Chlorohexane 0.250 1.00 0.250 1 U 2,2-Dichloropropane 0.500 1.00 0.500 1 U 2-Butanone 2.50 10.0 2.50 1 U 2-Chlorotoluene 0.100 1.00 0.100 1 U 4-Chlorotoluene 0.100 1.00 0.100 1 U 4-Methyl-2-pentanone 1.00 10.0 1.00 1 U Acetone 2.50 10.0 2.50 1 u Benzene 0.160 0.500 0.160 1 U Bromobenzene 0.160 1.00 0.160 1 U

Comments:		
		aut of
		- 4/10/D
QAPP 4.0	AFCEE FORM 0-2	Page 37 of 39

0.160

0.160

1

1.00

0.500

0.160

0.160

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Page 37 of 39

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M13315SC Lab Sample ID: 0803106-011A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1975.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

				DILIGI	
Bromoform	0.500	1.00	0.500	1	· U
Bromomethane	0.190	3.00	0.190	1	U
Carbon tetrachioride	0.250	1.00	0.250	1	U
Chlorobenzene	0.160	0.500	0.160	1 1	U
Chloroethane	0.500	1.00	0.500	1	U
Chloroform	0.100	0.500	0.100	· 'i -	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0,500	0.250	1	U
Dibromochloromethane	0.160	0.500	0.160	1	U
Dibromomethane	0.160	1.00	0.160	1	U
Dichlorodiftuoromethane	0.250	1.00	0.250	. 1	U
Ethylbenzene	0.100	1.00	0.280	; 1	F
Hexachlorobutadiene	0.500	1.00	0.500	1	U
Isopropylbenzene	0.160	1.00	9.75	1	-
Methyl tert-butyl ether	0.500	5.00	0.500	1 1	U
Methylene chloride	0.160	1.00	0.160	1	U
n-Butylbenzene	0.160	1.00	1.02	1	
n-Propylbenzene	0.100	1.00	10.4	1	
Naphthalene	0.500	1.00	1.77	1	
o-Xylene	0.160	1.00	0.160	1	U
p-Isopropyltoluene	0.160	1.00	2.21	· 1	
sec-Butylbenzene	0.160	1.00	4.82	1	
Styrene	0.160	1.00	0.160	1	U
terl-Butylbenzene	0.160	1.00	0.710	1	F
Tetrachloroethene	0.100	1.00	0.100	1	u
Toluene	0.100	1.00	0.100	1 1	U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1	U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	U
Trichloroethene	0.100	1.00	0.100	1	<u> </u>
Trichlorofluoromethane	0.100	1.00	0.100	11	, U
Vinyl chloride	0.500	1.00	0.500	1	U

Comments:

QAPP 4.0 AFCEE FORM O-2

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Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: TF3M13315SC Lab Sample ID: 0803106-011A Matrix: Groundwater

% Solids: Q Initial Calibration ID: 1204 File ID: T1975.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Acalyte	MDL	4 E E E	incentration]	Dilution	Comme Co Qualifier
Xylenes (total)	0.260	2.00	0.700	1	F

Surrogate 4	Berever #	eonro i imis	gualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	108	81 - 120	

internal Sto	Area Counts	Area (Soun Hampis	Qualifier
1,4-Dichlorobenzene-d4	724238	306228 - 1224912	
Chlorobenzene-d5	842690	370666 - 1482666	
Fluorobenzene	1908082	849584 - 3398336	

4/16/08

Comments:

QAPP 4.0 AFCEE FORM O-2 Page 39 of 39

GRIFFISS ENVIRONMENTAL SAMPLES - PETROLEUM SITES

CHEMICAL DATA QUALITY CONTROL SUMMARY MEMORANDUM: RESULTS FOR ORGANICS

Laboratory: LSL, Inc. FPM Contract#: 40-05-27 Method: 8260

Job Number: 0803123 LSL Project: Apron 2 Reviewer: Connie van Hoesel

Sample Date: <u>3/24/08</u> Review Date: <u>5/9/08</u>

Review Questions	Yes	No	N/A	Compounds/Samples Affected and/or Comments	Flag
1a. Were sample preservation requirements met?	X				
1b. Were sample storage requirements met?	X				
2. Were QAPP-specified RLs achieved?	X			As per approved variance.	None
3. Were measurement results for all QAPP-specified target analytes reported?	X				
4. Were all results reported between the MDL and the RL flagged F?	X				
5a. Were surrogate spikes added to every sample, control, standard, and method blank?	X				
5b. Was the %R for each surrogate spike within QAPP specifications?	X				
6. If dilutions were performed, which results should be reported?	X			Samples AP2M1411XA and AP2M1411XC were analyzed at a dilution of 1:2.5. Samples 782M10208XA and 782M10208XC were analyzed at a dilution of 1:10. Samples AP2M0319XA and AP2VM01M15XA were analyzed at a dilution of 1:50. The dilution results only are reported and used in the data verification.	None
7. Were target analytes in the field blank analyses (trip, field or equipment) reported below half the RL?					
8a. Was a method blank analyzed with each batch? 8b. Were target analytes in the method blank reported below the RL?	X X				

Signed. Concordia va	n Hoesel
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FPM-GROUP

Data Verification and Usability Report GRIFFISS AIR FORCE BASE Site Griffiss AFB TANK FARM 1/3 Water Sampling Contract No. F41624-03-D-8601

FPM Project No. 40-05-27

LSL Job # 0804056

Laboratory: Life Sciences Laboratories, Inc.

Sample Matrix: Water Number of Samples: 2

Analytical Protocol: AFCEE QAPP, Version 4.0, with AFCEE-approved lab variances

Data Reviewer: Connie van Hoesel Sample Date: April 8, 2008

LIST OF DATA VERIFICATION SAMPLES

This verification report pertains to the following environmental samples and corresponding QC samples:

Sample ID	Date	QC Samples	Date
TF3M119R11SA	4/8/08		
TF3M121R11SA	4/8/08		

Notes:

Refer to attached chain-of-custody for detailed sampling information and sample specific analyses requested. SA – Primary environmental samples

DELIVERABLES

The data deliverable report was per requirements of the AFCEE QAPP 4.0 and approved variances. The report consisted of the following major sections: lab attachment letter, case narrative, chain-of-custody, lab qualifier definitions, analytical results (sheet 2) based on analytical batch, calibration summaries, method blank summaries, laboratory control sample summaries, matrix spike/matrix spike duplicate summaries, holding time forms, performance checks, surrogate and internal standard recoveries, as applicable.

ANALYTICAL METHODS

The analytical test methods and QA/QC requirements used for the soil sample analysis was per methods as specified in the AFCEE Quality Assurance Project Plan, Version 4.0 and AFCEE approved laboratory variances. The analytical methods employed included SW-846: Volatile Organic Compounds (VOCs) by Method SW8260.

VERIFICATION GUIDANCE

The analytical work was performed by Life Sciences Laboratories, Inc. in accordance with the Air Force Center for Environmental Excellence (AFCEE), Quality Assurance Project Plan (QAPP), Version 4.0, with AFCEE-approved laboratory variances. The data was verified according to the protocols and QC requirements of the respective analytical methods and of the QAPP Version 4.0. For data usability purposes all values were further evaluated, including positive and non-detect results that were qualified "Q" according to the QAPP. The data usability analysis was based on the reviewer's professional judgment and on an assessment of how this data would fare with respect to the U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic (and Inorganic) Data Review (February 1994), and the AFCEE QAPP, Version 4.0.

QA/QC CRITERIA

The following QA/QC criteria were reviewed, as applicable and available:

- Method detection limits and reporting limits (MDL, RL)
- Holding times, sample preservation and storage
- MS tune performance
- Initial and Continuing calibration summaries
- Second source calibration verification summary
- Method blanks
- Ambient, equipment, and trip blanks (as applicable)
- Field duplicate results
- Surrogate spike recoveries
- Internal standard areas counts and retention times

- Laboratory control samples (LCS)
- Results reported between MDL and RL (F-flag)
- Sample storage and preservation
- Data system printouts
- Qualitative and quantitative compound identification
- Chain-of-custody (COC)
- Case narrative and deliverables compliance

The items listed above were in compliance with AFCEE QAPP and USEPA criteria and protocols with exceptions discussed in the text below. The data have been verified according to the procedures outlined above and qualified accordingly.

GENERAL NOTES:

MISSING SAMPLES

None. All samples documented on the chain of custody were received by the laboratory.

BLANKS

Whenever blanks, including method, ambient, equipment, and trip, contained low levels of contaminants (between MDL and RL), the laboratory and/or data verifier qualified the subject results with an "F" flag. Since no qualification of associated field samples are required for blanks less than half the RL, no further action was taken in such instances.

VOLATILE ORGANIC COMPOUNDS (VOCs)

• According to the case narrative, the following sample was analyzed at a dilution of 1:2.5: TF3M119R11SA, due to matrix interference. The dilution results only are reported and are used in data verification as representing original results.

DATA USABILITY RESULTS

VOCs

Based on the evaluation of all information in the analytical data groups, the results of the samples for VOCs are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

AFCEE SUMMARY

All data in Job # 0804056 are valid and usable with qualifications as noted in the data review.

Signed:	oncordia	van Hoesel	Date: <u>5/21/08</u>	
C	F1 - 1			

ATTACHMENTS

- Chain-of-Custody
- Laboratory's Case Narrative
- Definition of AFCEE Data Qualifiers
- Definition of USEPA Data Qualifiers
- Qualified final data verification results on annotated Lab Sheet 2s

AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor:

FPM Group

TF3M119R11SA	0804056-001A
TF3M121R11SA	0804056-002A

Comments			
		·	
for complete hardcopy de	data package is in compliance with the termess, for other than the conditions detailed a package and in the computer-readable Manager's designee, as verified by the following	d above. Releas data submitted o	e of the data contained in this
Signature:	Moriha Linduce	رُ Name:	Monika Santucci
Date:	4/28/08	Title:	Project Manager
4.0	AFCEE	FORM O-1	Page 1 of 1

Analytical Method: SW8260B Preparatory Method: AAB #: R13266

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: <u>TF3M119R11SA</u> Lab Sample ID: <u>0804056-001A</u> Matrix: <u>Groundwater</u>

 % Solids:
 0
 Initial Calibration ID: 1221
 File ID: M4890.D

Date Received: 09-Apr-08 Date Extracted: Date Analyzed: 10-Apr-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 25 mL

						, 404
(m+p)-Xylene	0.250	5.00	0.250	2.5		U
1,1,1,2-Tetrachloroethane	0.625	1.25	0.625	2.5		U
1,1,1-Trichloroethane	0.400	2.50	0.400	2.5		U
1,1,2,2-Tetrachloroethane	0.400	1,25	0.400	2.5		Ú
1,1,2-Trichloroethane	0.625	2.50	0.625	2.5		U
1,1-Dichloroethane	0.400	2,50	0.400	2.5		U
1,1-Dichloroethene	0.625	2.50	0.625	2.5		U
1,1-Dichloropropene	0.625	2.50	0.625	2.5		U
1,2,3-Trichlorobenzena	1.25	2.50	1.25	2.5		Ü
1,2,3-Trichloropropane	2.50	5.00	2.50	2.5		U
1,2,4-Trichlorobenzene	1.25	2.50	1.25	2.5		U
1,2,4-Trimethylbenzene	0.400	2.50	0.400	2.5		U
1,2-Dibromo-3-chloropropane	6.25	12.5	6.25	2.5		U
1,2-Dibromoethane	0.625	2.50	0.625	2.5		U
1,2-Dichlorobenzene	0.400	2.50	0.400	2.5		Ü
1,2-Dichloroethane	0.625	1.25	0.625	2.5	• •	U
1,2-Dichloropropane	0.400	2.50	0.400	2.5		U
1,3,5-Trimethylbenzene	0.400	2.50	0.400	2.5		U
1,3-Dichlorobenzene	0.400	2.50	0.400	2.5		U
1,3-Dichloropropane	0.400	1.25	0.400	2.5		U
1,4-Dichlorobenzene	j 0.400	1.25	0.400	2.5		- U
1-Chlorohexane	0.625	2.50	0.625	2.5		U
2,2-Dichloropropane	1.25	2.50	1.25	2.5		U
2-Butanone	6.25	25.0	6.25	2.5		Ū
2-Chlorotoluene	0.250	2.50	0.250	2.5		U
4-Chlorotoluene	0.250	2.50	0,250	2.5		Ü
4-Methyl-2-pentanone	2.50	25.0	2.50	2.5		<u>u</u>
Acetone	6.25	25.0	6.25	2.5		į U
Benzene	0.400	1.25	0,400	2.5	-	Ü
Bromobenzene	0.400	2.50	0,400	2.5		U
Bromochloromethane	0.400	2.50	0,400	2.5		U
Bromodichloromethane	0,400	1.25	0.400	2.5		u

QAPP 4.0 .		CEE FORM 0-2			Page 1 of 6	5/21/08
						wit
Comments:						
Bromodichloromethane	0.400	1.25	0.400	2.5		U
Bromochloromethane	0.400	2.50	0.400	2.5		U
Bromobenzene	0,400	2.50	0.400	2.5		U

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Groundwater

Field Sample ID:

TF3M119R11SA

Lab Sample ID:

0804056-001A

Matrix:

% Sollds:

0

Initial Calibration ID: 1221

File ID:

M4890.D

Date Received:

Date Analyzed:

10-Apr-08

09-Apr-08

Date Extracted:

Sample Size:

25 mL

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

Pa/L

RLE Bromoform 1.25 2,50 1.25 2.5 U Bromomethane 0.475 7.50 0.475 2.5 U Carbon tetrachloride 0.625 2.50 0.625 2.5 u Chlorobenzene 0.400 1.25 0.400 2.5 U 2.50 Chloroethane 1.25 1.25 2.5 Ü Chloroform 0.250 0.250 1.25 2.5 Chloromethane 1.25 2.50

U 1.25 2,5 U cis-1,2-Dichloroethene 0.400 2.50 0.400 2.5 U cis-1,3-Dichloropropene 0.625 1.25 0.625 2.5 U Dibromochloromethane 0.400 0.400 1.25 2.5 U Dibromomethane 0.400 2.50 0.400 2.5 u Dichlorodifluoromethane 0.625 2.50 0.625 U 2.5 Ethylbenzene 0.250 2.50 0.250 2.5 U Hexachlorobutadiene 1.25 2.50 1.25 2.5 U Isopropylbenzene 0.400 2.50 0.400 2.5 U Methyl tert-butyl ether 1.25 125 1.25 2.5 U 0.400 Methylene chloride 2.50 0.400 2.5 U 0.400 n-Butylbenzene 2.50 0,400 2.5 U n-Propylbenzene 0.250 2.50 0.250 2.5 U Naphthalene 1.25 2.50 1.25 25 U o-Xylene 0.400 0.400 2.50 25 U 0.400 p-Isopropyltoluene 2.50 0.400 2.5 U 0.400 sec-Butylbenzene 2,50 0.400 2.5 U 0.400 Styrene 2,50 0.400 2.5 U tert-Butylbenzene 0.400 2.50 0.400 2.5 Ü Tetrachloroethene 0.250 0.250 2.50 25 U Toluene 0.250 2.50 0.250 25 u

Comments:

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichlorofluoromethane

Trichloroethene

Vinyl chloride

2.50

2.50

2.50

2.50

2.50

0.400

0.625

0.250

0.250

1.25

2.5

2.5

2.5

2.5

2,5

0.400

0.625

0.250

0.250

1.25

QAPP 4.0

AFCEE FORM Q-2

Page 2 of 6



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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M119R11SA

Lab Sample ID:

0804056-Q01A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1221

File ID:

M4890.D

Date Received:

Field Sample ID:

Date Analyzed: 10-Apr-08

80-1aA-e0

Date Extracted:

Concentration Units (ug/L or mg/Kg dry weight): na/r

Sample Size:

25 mL

		RL	e origentiation	Dilution	- Sunitor - Sunitor	
Xylenes (total)	0.650	5.00	0.650	2.5	U	

Surogate	Lead in the control of the control	Ethio Inc	
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	110	76 - 119	
Toluene-d8	115	81 - 120	

nena šii	Alexicounts -	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	1542709	811362 - 3245448
Chlorobenzene-d5	2218231	1119858 - 4479430
Fluorobenzene	4291135	1972798 - 7891190

Comments:

QAPP 4.0

AFCEE FORM 0-2

Page 3 of 6

Analytical Method: SW8260B Preparatory Method: AAB#: R13266

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: TF3M121R11SA Groundwater Matrix: Lab Sample ID: 0804056-002A

% Solids: 0 Initial Calibration ID: 1221 File ID: M4888.D

Date Received: Date Analyzed: 10-Apr-08 09-Apr-08 Date Extracted:

Concentration Units (ug/L or mg/Kg dry weight): <u>μα/L</u> Sample Size: <u>25 mL</u>

(m+p)-Xylene	0.100	2.00	0.100	1	U
1,1,1,2-Tetrachloroethane	0.250	0.500	0,250	1	U
1,1,1-Trichloroethane	0.160	1.00	0,160	1 1	Ü
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.160	1.00	0.160	1	υ
1,1-Dichloroethene	0.250	1.00	0.250	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0,500	1.00	0.500	1	U
1,2,3-Trichloropropane	1,00	2.00	1.00	1	U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	υ
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1	. U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	; 0.160	1.00	0.160	1	U
1,2-Dichloroethane	0.250	0.500	0.250	: 1	U
1,2-Dichloropropane	0.160	1.00	0,160	1	U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1	U
1,3-Dichlorobenzene	0.160	1.00	0.160	1	U
1,3-Dichloropropane	0.160	0.500	0.160	1	U
1,4-Dichlorobenzene	0.160	0.500	0.160	1	U
1-Chlorohexane	0.250	1.00	0.250	1	U
2,2-Dichloropropane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
2-Chlorotoluene	0.100	1.00	0.100	1	Ü
4-Chlorotoluene	0.100	1.00	0.100	1	U
4-Methyl-2-pentanone	1.00	10.0	1.00	1	· U
Acetone	2.50	10.0	2.50	1	U
Benzene	0.160	0.500	0.160	1	U
Bromobenzene	0.160	1.00	0.160	1 '	U
Bromochloromethane	0.160	1.00	0.160	1	ū
Bromodichloromethane	0.160	0.500	0.160	1	U

Comments:		
QAPP 4.0	AFCEE FORM 0-2	Page 4 of 6

Page 4 of 6 AFCEE FORM 0-2

Analytical Method: SWB260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: TF3M121R11SA

Lab Sample ID:

0804056-002A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1221

File ID:

M4888.D

Date Received:

Date Extracted:

Date Analyzed: 10-Apr-08

09-Apr-08

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

Sample Size: 25 mL

		FIFTH N			
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.190	3.00	0.190	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.160	0.500	0.160	, 1	U
Chloroethane	0.500	1.00	0.500	; 1	U
Chloroform	0.100	0.500	0.100	1	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1	U
Dibromochloromethane	0.160	0.500	0.160	1	U
Dibromomethane	0.160	1.00	0.160	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethylbenzene	0.100	1.00	0.100	1	; U
Hexachlorobutadiene	0.500	1.00	0.500	1	U
Isopropylbenżene	0.160	1.00	0.160	1	U
Methyl tert-butyl ether	0.500	5.00	0.500	1	U
Methylene chloride	0.160	1.00	0.160	1	U
n-Butylbenzene	0.160	1.00	0.160	1	U
n-Propylbenzene	0.100	1.00	0.100	1	U
Naphthalene	0.500	1.00	0.500	1	Ü
o-Xylene	0.160	1.00	0.160	1	U
p-Isopropyltaluene	0.160	1,00	0.160	i	U
sec-Butylbenzene	0.160	1.00	0.160	1	U
Styrene	0.160	1.00	0.160	1	U
tert-Butylbenzene	0.160	1.00	0.160	1	U
Tetrachloroethene	0.100	1.00	0.100	1	U
Toluene	0.100	1.00	0.100	1	U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1	U
trans-1,3-Dichloropropene	0.250	1.00	0,250	! 1	U
Trichloroethene	0.100	1.00	1.18	1	
Trichlorofluoromethane	0.100	1.00	0.100	1	:
Vinyl chloride	0.500	1.00	0.500	1	U

Comments:

QAPP 4.0

AFCEE FORM 0-2

Page 5 of 6

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M121R11SA

Lab Sample ID:

0804056-002A

Concentration

0.260

Matrix:

Groundwater

% Solids:

Q

Initial Calibration ID: 1221

RLE

2.00

File ID:

M4888.D

Date Received:

and the same of th

1

Date Analyzed: 10-Apr-08

Xylenes (total)

80-rqA-60

Date Extracted:

Sample Size:

25 mL

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

ug/L

0.260

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Dilutio	ORGEN		ONSTRUCE

Surceale of the	· In the Court of	Control Units	
1,2-Dichloroethane-d4	110	72 - 119	S CORE AS SECTION AND ADDRESS OF A SECTION AND ADDRESS OF A SECTION ADD
4-Bromofluorobenzene	113	76 - 119	
Toluene-d8	109	81 - 120	

e bienalisti	Arse Counts	Area colin Limita	Qualifier
1,4-Dichlorobenzene-d4	1462540	811362 - 3245448	ADMINISTRA PROPERTY.
Chlorobenzene-d5	2206059	1119858 - 4479430	
Fluorobenzene	3913963	1972798 - 7891190	

Comments:		
QAPP 4.0	AFCEE FORM 0-2	Page 6 of 6



Monday, April 07, 2008

Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441

TEL:

Project: GRIFFISS AFB - TF 1 AND 3

RE:

Analytical Result

Order No.: 0803106

Dear Niels van Hoesel:

Life Science Laboratories, Inc. received 11 sample(s) on 3/21/2008 for the analyses presented in the following report.

Very truly yours,

Life Science Laboratories, Inc.

Monika Santucci

Project Manager



Project Management Case Narrative

INTRODUCTION/ANALYTICAL RESULTS

This report summarizes the laboratory results for samples from FPM, for the Griffiss AFB-TF 1 and 3-Rome, NY project.

CONDITION UPON RECEIPT/CHAIN OF CUSTODY

The cooler(s) were received intact. When the cooler(s) were received by the laboratory, the sample custodian(s) opened and inspected the shipment(s) for damage and custody inconsistencies. Chains of custody documenting receipt are presented in the chain of custody section. Each sample was assigned a unique laboratory number and a custody file created. The samples were placed in a secured walk-in cooler and signed in and out by the chemists performing the tests. The sign out record, or lab chronicle, is presented in the chain of custody section.

There were no discrepancies noted upon receipt. The temperature of the cooler was 1.8°C.

METHODOLOGY

The following methods were used to perform the analyses:

PARAMETER	METHOD	REFERENCE
Volatile Organics	SW8260B	1

1) <u>Test Methods for Evaluating Solid Wastes</u>, SW-846 Third Edition, Final Update III, December 1996 (including the QC requirements specified in AFCEE 4.0 + variances).

OUALITY CONTROL

QA/QC results are summarized in the Laboratory Report.

RAW DATA

The raw data is not requested for this report. Life Science Laboratories, Inc. will keep the raw data on file.

Total # of pages in this report: _	

GC/MS Volatile Organics Case Narrative - Page 1

Client:

FPM

Project/Order:

Griffiss AFB-TF 1 and 3

Work Order #:

0803106

Methodology:

8260B

Analyzed/Reviewed by (Initials/Date):

Supervisor/Reviewed by (Initials/Date): MA 4/7

QA/QC Review (Initials/Date):

G:\Narratives\MSVoa\0803106vnar.doc

File Name:

GC/MS Volatile Organics

The GC/MS Volatile instruments are equipped with a Restek Rtx-VMS, 40 m x 0.18 mm ID capillary column (MS01 & MS03), Restek Rtx-502.2, 105 m x 0.53 mm ID capillary column (MS02), and Restek Rtx-VMS, 60 m x 0.25mm ID capillary column (MS04), and a Vocarb 3000 adsorbent trap.

Holding Times and Sample Preservation

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements. Samples had a pH of ≤ 2 .

Laboratory Control Sample

All spike recoveries met method and/or project specific QC criteria.

MS/MSD/MSB

The following compound(s) did not meet matrix spike/matrix spike duplicate percent recovery and/or RPD criteria:

ľ	Sample				Corrective
	Description	Sample #	Compound	% REC	 Action
	*************	0803106-005A	2-Butanone	X	1
			4-Methyl-2-pentanone	X	1
	***************************************		Acetone	X	1

The recovery for this compound in the associated LCS and/or duplicate LCS was within acceptance limits. Matrix effects are suspected. The chromatogram showed evidence of a hydrocarbon/fuel pattern. No corrective action was taken.

Surrogate Standards

All surrogate standard recoveries met method and/or project specific QC criteria.

Internal Standards

All internal standard areas met method and/or project specific QC criteria.

Calibrations

All initial calibrations and calibration verifications met method and/or project specific QC criteria.

GC/MS Volatile Organics Case Narrative - Page 2

Client: FPM

Project/Order: Griffiss AFB-TF 1 and 3

Work Order #: 0803106 Methodology: 8260B

Preparation Blanks

All preparation blanks met method and/or project specific QC criteria.

Miscellaneous

Due to an instrument malfunction, carry-over contamination was observed in the method blank [MB-1311] that was analyzed within the 12-hour tune period. The blank was reanalyzed outside the 12-hour tune period and used for reporting.

Life Science Laboratories, Inc.

Date: 07-Apr-08

CLIENT:

FPM Group

Project:

Griffiss AFB - TF 1 and 3

Lab Order:

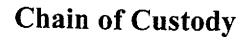
0803106

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0803106-001A	TF3CE312SA	MW-CE	3/20/2008	3/21/2008
0803106-002A	TF3M2113SA	TF3MW21	3/20/2008	3/21/2008
0803106-003A	TF3M11613SA	WL-TF3MW-116	3/20/2008	3/21/2008
0803106-004A	TF3M11710SA	WL-TF3MW-117	3/20/2008	3/21/2008
0803106-005A	TF3M12313SA	WL-TF3MW-123	3/20/2008	3/21/2008
0803106-006A	TF3M12313SC	WL-TF3MW-123	3/20/2008	3/21/2008
0803106-007A	TF3M12613SA	WL-TF3MW-126	3/20/2008	3/21/2008
0803106-008A	TF3M12712SA	WL-TF3MW-127	3/20/2008	3/21/2008
0803106-009A	TF3M12813SA	WL-TF3MW-128	3/20/2008	3/21/2008
0803106-010A	TF3M13315SA	WL-TF3MW-133	3/20/2008	3/21/2008
0803106-011A	TF3M13315SC	WL-TF3MW-133	3/20/2008	3/21/2008

Life Science Laboratories, Inc.

Lab Order:	0803106					
Client:	FPM Group				DATES REPORT	
Project:	Griffiss AFB - TF 1 and 3	1 and 3				
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date Prep Date	Analysis Date
0803106-001A	TF3CE312SA	3/20/2008 10:35:00 AM	Groundwater	Volatile Organic Compounds by GC/MS		3/24/2008
0803106-002A	TF3M2113SA	3/20/2008 11:50:00 AM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-003A	TF3M11613SA	3/20/2008 12:15:00 PM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-004A	TF3M11710SA	3/20/2008 12:40:00 PM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-005A	TF3M12313SA	3/20/2008 11:17:00 AM		Volatile Organic Compounds by GC/MS		3/28/2008
0803106-006A	TF3M12313SC			Volatile Organic Compounds by GC/MS		3/24/2008
0803106-007A	TF3M12613SA	3/20/2008 9:43:00 AM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-008A	TF3M12712SA	3/20/2008 11:10:00 AM		Volatile Organic Compounds by GC/MS		3/25/2008
0803106-009A	TF3M12813SA	3/20/2008 10:40:00 AM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-010A	TF3M13315SA	3/20/2008 10:00:00 AM		Volatile Organic Compounds by GC/MS		3/24/2008
0803106-011A	TF3M13315SC			Volatile Organic Compounds by GC/MS		3/24/2008



External Chain of Custody

CHAIN OF CUSTODY RECORD AFCEE

COC#: _2_ SDG#: _177_ Cooler ID: _A_

	D	Cand Danilla to Minla was Unanal
Ship to: Monka Santucci	Froject Name: Orninss Arb 1F 1 and 3 Sampling	Della results to. Intels vali moesei
Life Science Laboratories, Inc.	Sampler Name: David Forse	FPM Group
5000 Brittonfield Pkwy, Suite 200		153 Brooks Road
East Syracuse, NY 13057 Tel: (315)437-0200		Rome, NY 13441
Carrier: LSL courier.	Sampler Signature:	Phone: (315) 336-7721 Ext. 205

	Comments													
	Total Sulfide Note 5 16 oz poly (ZnAC and NaOH)	-	•	ı	t	1	-	,	•	1	1	ŀ	4	ı
	Vitrogen (Nitrate) ^{note 4} log so dl	_	-	-	-	-	-	-	-	•	•	-	-	•
	Total Alkalinity note 3 (zero headspace)	-	ı	ı	ı	-	_		-	-	-	-	-	ı
nestea	${ m ZAOC}_{2}$ mote ${ m SAOC}_{2}$		ı	-	-	•	-	•	-	-	-	•	•	ı
Analyses Requested	VOC ^{note 1} 40 mL vials (HCl)	3	.3	3	3	3	3	3	3	3	3	3	3	3
Analy	No. of Containers	3	3	3	3	3	3	3	3	3	3	3	3	3
	Filt./UnFilt.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	Unf.	$\mathbf{U}_{\mathbf{nf}}$.	Unf.
	эчізелэгэт Т	HCI	HCI	HCI	HCI	HCl	HC	HCI	HCI	HCI	HCI	HCI	HCI	HCI
	SACODE	z	Z	Z	Z	z	FD	MS	SD	Ν	Ν	N	N	FD
	SBD/SED	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	SMCODE	В	В	В	В	В	В	В	В	В	В	В	В	В
	XIXTAM	MG	WG	MG	DM	WG	WG	WG	MG	MG	WG	WG	WG	WG
	Time	1035	1150	1215	1240	1117	1117	1117	1117	0943	1110	1040	1000	1000
	Date 2008	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
	Location ID (LOCID)	MW-CE	TF3MW21	WL-TF3MW-116	WL-TF3MW-117	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-123	WL-TF3MW-126	WL-TF3MW-127	WL-TF3MW-128	WL-TF3MW-133	WL-TF3MW-133
	Field Sample ID	TF3CE312SA	TF3M2113SA	TF3M11613SA	TF3M11710SA	TF3M12313SA	TF3M12313SC	TF3M12313SS	TF3M12313SD	TF3M12613SA	TF3M12712SA	TF3M12813SA	TF3M13315SA	TF3M13315SC

Sample Condition Upon Receipt at Laboratory:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0 Note 1: VOCs: SW8260, AFCEE QAPP 4.0 List.

Costady SEAL ATTACHED

Cooler Temperature:

Note 2: SVOCs: SW8270, AFCEE QAPP 4.0 List. Note 3: Total Alkalinity, 310.2. Note 4: Nitrogen: 353.2, Nitrate: Automated. Note 5: Total Sulfide: 376.2.

Date: #2 Released by: (Sig) 2 Port Date: 3/20/08 #3 Released by: (Sig) / Let Date Date	Time: Company Name: FPM Group #td// Time: 1700, Company Name: 254	Date: 2/20/07 #2 Received by: (Sig) 7 LL LX Date 3/20/03 #3 Received by: (Sig) CDA . Date 3/2-(15)	Time: 1000 Company Name: 18/ Time: 17 as Company Name: 65 L- 8 L Time: 7.42	SMCODE B = Bailer G = Grab (only for EB). NA = Not Applicable (only for AB/TB) PP = Peristatic Pump BP = Bladder Pump SP = Submersible Pump SS = Split Spoon S = Split Spoon S = Bailer NA = Not Applicable (only for AB/TB) TB = Trip Blank TB = Ambient Blank TB = Trip Blan
			Compa	SMCODE B = Bailer G = Grab (only for EB). NA = Not Applicable (only for PP = Peristaltic Pump BP = Bladder Pump SP = Submersible Pump SP = Submersible Pump
#1 Released by: (Sig)	Сотрапу Лате:	#1 Received by: (Sig) Niels van Hoesel	Company Name: FPM Group Ltd	MATRIX WG = Ground water WQ = Water Quality Control Matrix SO = Soil

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: FPM			Date and Time Received:	3/21/2008 7:40:00 AM
Work Order Number 0803106			Received by: AC	
Checklist completed by:	3/ Date	2/68	Reviewed by: MS	3 Su 08
Matrix:	Carrier name:	Courier		
Shipping container/cooler in good condition?		Yes 🗹	No Not Present	3
Custody seals intact on shipping container/cooler?		Yes 🗸	No Not Present	
Custody seals intact on sample bottles?		Yes 🗆	No Not Present	
Chain of custody present?		Yes 🗸	No 🗌	
Chain of custody signed when relinquished and recei	ved?	Yes 🗹	No 🗀	
Chain of custody agrees with sample labels?		Yes 🗸	No 🗌	
Samples in proper container/bottle?		Yes 🔽	No 🗆	
Sample containers intact?		Yes 🗸	No 🗔	
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌	
All samples received within holding time?		Yes 🔽	No 🗔	
Container/Temp Blank temperature in compliance?		Yes 🗹	No 🗔	
Water - VOA vials have zero headspace?		Yes 🗹	No 🗌 No VOA vials subr	nitted
Water - pH acceptable upon receipt?		Yes 🗌	No Not Applicable	<u>/</u>

Comments:

Corrective Action::

FPM Griffis AFB-TF1-d Client/Project_

Sample Control Record
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AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Comments:

Prime Contractor:

FPM Group

Field Sample IE) Lab Sample ID
TF3CE312SA	0803106-001A
TF3M2113SA	0803106-002A
TF3M11613SA	0803106-003A
TF3M11710SA	0803106-004A
TF3M12313SC	0803106-006A
TF3M12613SA	0803106-007A
TF3M12813SA	0803106-009A
TF3M13315SA	0803106-010A
TF3M13315SC	0803106-011A

for complete	data package is in compliance with the terms and ness, for other than the conditions detailed abo	ve. Releasi	e of the data contained in this
	a package and in the computer-readable data : lanager's designee, as verified by the following		n diskette has been authorized by the
-	,		
Signature:	Monka Landucci	Name:	Monika Santucci
Date:	4/7/08	Title:	Project Manager

AFCEE

ORGANIC ANALYSES DATA PACKAGE Analytical Method: SW8260B AAB #: R13066 Lab Name: Life Science Laboratories, Inc. Contract Number: Base/Command: Prime Contractor: FPM Group Field Sample ID Lab Sample ID

TF3M12712SA 0803106-008A

for complete hardcopy da	data package is in compliance with the terms ness, for other than the conditions detailed at ta package and in the computer-readable data fanager's designee, as verified by the followin	ove. Release submitted o	e of the data contained in this
Signature:	Morika Landucci	Name:	Monika Santucci
Date:	4/7/08	Title:	Project Manager
QAPP 4.0	AFCEE FO	RM O-1	Page 2 of 3

Comments:

AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor:

FPM Group

Field Sample ID	Lab Sample ID
TF3M12313SA	0803106-005A
TF3M12313SA	0803106-005AMS
TF3M12313SA	0803106-005AMSD

Comments:			

for complete hardcopy dat	data package is in compliance with the terms a ness, for other than the conditions detailed ab ta package and in the computer-readable data fanager's designee, as verified by the following	ove. Releas submitted o	e of the data contained in this
Signature:	Monka Sanduca	Name:	Monika Santucci
Date:	4/7/08	Title:	Project Manager
PP 4.0	AFCEE FOI	RM O-1	Page 3 of 3

Analytical Method: <u>SW8260B</u>

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: TF3CE312SA Lab Sample ID:

0803106-001A

Matrix:

Groundwater

% Solids:

Q

Initial Calibration ID: 1204

File ID:

T1966.D

Date Received:

Date Analyzed:

24-Mar-08

21-Mar-08

Date Extracted:

Sample Size:

<u>10 mL</u>

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

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.100	1		U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1	·	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	·	U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		Ü
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1		U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		Ü
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1	-	U
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U
	t			1	A CONTRACTOR OF THE PARTY OF TH	

Comments:			
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· · - · - · - · - · - · · · · · · · · ·			

Analytical Method: SW8260B Prep

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: TF3CE312SA

Lab Sample ID:

0803106-001A

Matrix:

Groundwater

% Solids:

Q

Initial Calibration ID: 1204

File ID:

T1966.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

μg/L

Sample Size:

<u>10 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifie
Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.100	1		U
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	0.160	1.00	3.74	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		Ü
n-Butylbenzene	0.160	1.00	1.17	1		
n-Propylbenzene	0.100	1.00	5.38	1		
Naphthalene	0.500	1.00	0.500	1		U
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	2.70	1		
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.630	1		F
Tetrachloroethene	0.100	1.00	0.100	1		U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U
Trichloroethene	0.100	1.00	1.15	1		
Trichlorofluoromethane	0.100	1.00	0.100	1		υ
Vinyl chloride	0.500	1.00	0.500	1		U

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Comments:

Analytical Method: SW8260B

Field Sample ID:

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3CE312SA

Lab Sample ID:

0803106-001A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1966.D

Date Received:

21-Маг-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

<u>μg/L</u>

Sample Size:

<u>10 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confi	m Q	ualifier
Xylenes (total)	0.260	2.00	0.260	1		!	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	107	72 - 119	
4-Bromofluorobenzene	104	76 - 119	
Toluene-d8	111	81 - 120	

internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	713025	306228 - 1224912
Chlorobenzene-d5	814046	370666 - 1482666
Fluorobenzene	1826780	849584 - 3398336

Comments:		
	 	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M2113SA

Lab Sample ID:

0803106-002A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1967.D

Date Analyzed: 24-Mar-08

Date Received:

21-Mar-08

Date Extracted:

Sample Size:

<u>10 mL</u>

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

Analyte	MDL MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.200	4.00	0.200	2		U
1,1,1,2-Tetrachloroethane	0.500	1.00	0.500	2		U
1,1,1-Trichloroethane	0.320	2.00	0.320	2		U
1,1,2,2-Tetrachloroethane	0.320	1.00	0.320	2		U
1,1,2-Trichloroethane	0.500	2.00	0.500	2		U
1,1-Dichloroethane	0.320	2.00	0.320	2		U
1,1-Dichloroethene	0.500	2.00	0.500	2		U
1,1-Dichloropropene	0.500	2.00	0.500	2		U
1,2,3-Trichlorobenzene	1.00	2.00	1.00	2		U
1,2,3-Trichloropropane	2.00	4.00	2.00	2		U
1,2,4-Trichlorobenzene	1.00	2.00	1.00	2		U
1,2,4-Trimethylbenzene	0.320	2.00	0.320	2	-	U
1,2-Dibromo-3-chloropropane	5.00	10.0	5.00	2		U
1,2-Dibromoethane	0.500	2.00	0.500	2		U
1,2-Dichlorobenzene	0.320	2.00	0.320	2		U
1,2-Dichloroethane	0.500	1.00	0.500	2		U
1,2-Dichloropropane	0.320	2.00	0.320	2		U
1,3,5-Trimethylbenzene	0.320	2.00	0.320	2		U
1,3-Dichlorobenzene	0.320	2.00	0.320	2		U
1,3-Dichloropropane	0.320	1.00	0.320	2		U
1,4-Dichlorobenzene	0.320	1.00	0.320	2	<u></u>	U
1-Chlorohexane	0.500	2.00	0.500	2		U
2,2-Dichloropropane	1.00	2.00	1.00	2		U
2-Butanone	5.00	20.0	5.00	2		U
2-Chlorotoluene	0.200	2.00	0.200	2		U
4-Chiorotoluene	0.200	2.00	0.200	2		U
4-Methyl-2-pentanone	2.00	20.0	2.00	2		U
Acetone	5.00	20.0	5.00	2		U
Benzene	0.320	1.00	0.320	2		U
Bromobenzene	0.320	2.00	0.320	2		U
Bromochloromethane	0.320	2.00	0.320	2		U
Bromodichloromethane	0.320	1.00	0.320	2		U

Comments:

Analytical Method: SW8260B

TF3M2113SA

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Lab Sample ID:

0803106-002A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1204

File ID:

T1967.D

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Sample Size:

Date Analyzed:

24-Mar-08 10 mL

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

Analyte MDL RL Concentration Dilution Confirm Qualifier Bromoform 1.00 2.00 1.00 2 U Bromomethane 0.380 0.380 2 6.00 U Carbon tetrachloride 0.500 2.00 0.500 2 U Chlorobenzene 0.320 2 1.00 0.320 U Chloroethane 1.00 2.00 1.00 2 U Chloroform 0.200 1.00 0.200 2 U Chloromethane 1.00 2 U 2.00 1.00 cis-1,2-Dichloroethene 0.320 2 2.00 0.320 U cis-1,3-Dichloropropene 0.500 1.00 0.500 2 U Dibromochloromethane 0.320 1.00 0.320 2 U Dibromomethane 0.320 2.00 0.320 2 Dichlorodifluoromethane 0.500 0.500 2 2.00 U Ethylbenzene 0.200 2.00 0.200 2 U Hexachlorobutadiene 1.00 2.00 1.00 2 U Isopropylbenzene 0.320 2.00 13.2 2 Methyl tert-butyl ether 1.00 2 10.0 1.00 U Methylene chloride 0.320 0.320 2 U 2.00 n-Butylbenzene 0.320 2.00 1.26 2 F n-Propylbenzene 0.200 2 2.00 2.52 Naphthalene 1.00 2.00 1.00 2 U o-Xylene 2 U 0.320 2.00 0.320 p-Isopropyltoluene 0.320 2.00 1.04 2 F sec-Butylbenzene 0.320 2.00 1.24 2 F Styrene 0.320 2.00 0.320 2 U tert-Butylbenzene 0.320 2.00 0.680 2 F Tetrachloroethene 2 0.200 2.00 0.200 U Toluene 0.200 2 U 2.00 0.200 trans-1,2-Dichloroethene 0.320 2 U 2.00 0.320 trans-1,3-Dichloropropene 0.500 2.00 0.500 2 U Trichloroethene 0.200 2.00 0.200 2 u Trichlorofluoromethane 0.200 2 U 2.00 0.200 Vinyl chloride 1.00 2.00 1.00 2 U

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Comments:

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M2113SA

Lab Sample ID:

0803106-002A

Matrix:

<u>Groundwater</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1967.D

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
Xylenes (total)	0.520	4.00	0.520	2	U

Surro	gate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	•	106	72 - 119	
4-Bromofluorobenzen	9	102	76 - 119	
Toluene-d8		103	81 - 120	·

Internal Std	Area Counts	Area Gount Limits Qualifier	
1,4-Dichlorobenzene-d4	709856	306228 - 1224912	
Chlorobenzene-d5	815938	370666 - 1482666	_
Fluorobenzene	1875739	849584 - 3398336	_

Comments:	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M11613SA

Lab Sample ID:

0803106-003A

Matrix:

<u>Groundwater</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1968.D

Date Received:

<u>21-Mar-08</u>

Date Extracted:

Date Analyzed: 24-Mar-08

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

<u>μg/L</u>

Sample Size:

Analyte	MDL	RL I	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.100	1		U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzeпе	0.500	1.00	0.500	1		U
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1		U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1 1	•	U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1 1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1 1		U
Benzene	0.160	0.500	0.160	1 1	· · · · · · · · · · · · · · · · · · ·	U
Bromobenzene	0.160	1.00	0.160	1		u
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: TF3M11613SA

Lab Sample ID:

0803106-003A

Matrix:

Groundwater

% Solids:

initial Calibration ID: 1204

File ID:

T1968.D

Date Received:

<u>0</u>

Date Analyzed:

24-Mar-08

21-Mar-08

Date Extracted:

<u>10 mL</u>

Concentration Units (ug/L or mg/Kg dry weight): μg/L Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		υ
Ethylbenzene	0.100	1.00	0.100	1		U
Hexachlorobutadiene	0.500	1.00	0.500	1	····	U
Isopropylbenzene	0.160	1.00	10.7	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	1.59	1		!
n-Propylbenzene	0.100	1.00	8.17	1		:
Naphthalene	0.500	1.00	0.500	1		U
o-Xylene	0.160	1.00	0.160	1		U
p-isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	7.79	1		
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	2.03	1		
Tetrachloroethene	0.100	1.00	0.100	1		. U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U
Trichloroethene	0.100	1.00	0.100	1		U
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U
		1.				

Comments:	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Lab Sample ID:

0803106-003A

Matrix:

Groundwater

% Solids:

File ID:

T1968.D

<u>0</u>

Initial Calibration ID: 1204

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

TF3M11613SA

Sample Size:

<u>10 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
Xylenes (total)	0.260	2.00	0.260	1	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	99	76 - 11 9	
Toluene-d8	116	81 - 120	

internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	722132	306228 - 1224912	
Chlorobenzene-d5	859847	370666 - 1482666	
Fluorobenzene	1890124	849584 - 3398336	

Comments:

QAPP 4.0

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M11710SA

Lab Sample ID:

0803106-004A

Matrix:

Groundwater

% Solids:

Field Sample ID:

<u>0</u>

Initial Calibration ID: 1204

T1969.D

File ID:

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

Sample Size: <u>10 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.100	1	and the second s	U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1	11.1.012	U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	·	U
1,2,3-Trichloropropane	1.00	2.00	1.00	1	 	U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	·	U
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1		U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		Ü
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1	,	U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1	•••	U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		Ü
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1		Ü
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:			
	 	 	
	 	 	

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M11710SA Lab Sample ID: 0803106-004A Matrix: Groundwater

% Solids: $\underline{0}$ Initial Calibration ID: $\underline{1204}$ File ID: $\underline{11969.D}$

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 10 mL

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.190	3.00	0.190	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	· U
Chlorobenzene	0.160	0.500	0.160	1	Ü
Chloroethane	0.500	1.00	0.500	1	U
Chloroform	0.100	0.500	0.100	1	· U
Chloromethane	0.500	1.00	0.500	1	ט
cis-1,2-Dichloroethene	0.160	1.00	0.190	1	F
cis-1,3-Dichloropropene	0.250	0.500	0.250	1	U
Dibromochloromethane	0.160	0.500	0.160	1	U
Dibromomethane	0.160	1.00	0.160	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethylbenzene	0.100	1.00	0.100	1	U
Hexachlorobutadiene	0.500	1.00	0.500	1	U
Isopropylbenzene	0.160	1.00	0.780	1	F
Methyl tert-butyl ether	0.500	5.00	0.500	1	U
Methylene chloride	0.160	1.00	0.160	1	U
n-Butylbenzene	0.160	1.00	0.160	1	U
n-Propylbenzene	0.100	1.00	0.100	1	U
Naphthalene	0.500	1.00	0.500	1	U
o-Xylene	0.160	1.00	0.160	1	U
p-Isopropyltoluene	0.160	1.00	0.160	1	U
sec-Butylbenzene	0.160	1.00	0.160	1	U
Styrene	0.160	1.00	0.160	1	U
tert-Butylbenzene	0.160	1.00	1.72	1	
Tetrachloroethene	0.100	1.00	0.100	1	U
Toluene	0.100	1.00	0.100	1	U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1	U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1 .	U
Trichloroethene	0.100	1.00	0.100	1	U
Trichlorofluoromethane	0.100	1.00	0.100	1	U
Vinyl chloride	0.500	1.00	0.500	1	U

Comments:	

Analytical Method: SW8260B

TF3M11710SA

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-004A

0.260

Matrix:

Groundwater

% Solids:

Field Sample ID:

Xylenes (total)

Initial Calibration ID: 1204

File ID:

1

T1969.D

<u>0</u>

Date Received:

21-Mar-08

Date Extracted:

Lab Sample ID:

Date Analyzed: Sample Size:

24-Mar-08 <u>10 mL</u>

U

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

0.260

Dilution Confirm Analyte MDL RL Concentration Qualifier

2.00

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	113	81 - 120	

internal Std.	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	735795	306228 - 1224912
Chlorobenzene-d5	873886	370666 - 1482666
Fluorobenzene	1939391	849584 - 3398336

Comments:		
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QAPP 4.0

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SA

Lab Sample ID:

0803106-005A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4730.D

Date Received:

Date Extracted:

Date Analyzed:

28-Mar-08

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

21-Mar-08

Sample Size: <u>25 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifi
(m+p)-Xylene	0.200	4.00	0.200	2	**************************************	U
1,1,1,2-Tetrachloroethane	0.500	1.00	0.500	2		U
1,1,1-Trichloroethane	0.320	2.00	0.320	2		U
1,1,2,2-Tetrachloroethane	0.320	1.00	0.320	2		U
1,1,2-Trichloroethane	0.500	2.00	0.500	2		U
1,1-Dichloroethane	0.320	2.00	0.320	2		U
1,1-Dichloroethene	0.500	2.00	0.500	2		U
1,1-Dichloropropene	0.500	2.00	0.500	2		U
1,2,3-Trichlorobenzene	1.00	2.00	1.00	2		U
I,2,3-Trichloropropane	2.00	4.00	2.00	2		U
,2,4-Trichlorobenzene	1.00	2.00	1.00	2		U
,2,4-Trimethylbenzene	0.320	2.00	11.4	2		
I,2-Dibromo-3-chloropropane	5.00	10.0	5.00	2		U
,2-Dibromoethane	0.500	2.00	0.500	2		U
,2-Dichlorobenzene	0.320	2.00	0.320	2		U
,2-Dichloroethane	0.500	1.00	0.500	2		U
I,2-Dichloropropane	0.320	2.00	0.320	2		U
,3,5-Trimethylbenzene	0.320	2.00	2.94	2		
,3-Dichlorobenzene	0.320	2.00	0.320	2		U
,3-Dichloropropane	0.320	1.00	0.320	2		U
,4-Dichlorobenzene	0.320	1.00	0.320	2		U
-Chlorohexane	0.500	2.00	0.500	2		U
2,2-Dichloropropane	1.00	2.00	1.00	2		U
2-Butanone	5.00	20.0	5.00	2		UM
2-Chlorotoluene	0.200	2.00	0.200	2		Ü
i-Chlorotoluene	0.200	2.00	0.200	2		U
-Methyl-2-pentanone	2.00	20.0	2.00	2	· · · · · · · · · · · · · · · · · · ·	UM
Acetone	5.00	20.0	5.00	2		UM
Benzene	0.320	1.00	0.320	2		U
Bromobenzene	0.320	2.00	0.320	2		U
Bromochloromethane	0.320	2.00	0.320	2		υ
Bromodichloromethane	0.320	1.00	0.320	2		Ü

Comments:		

Analytical Method: SW8260B Preparatory Method: AAB #: R13111

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SA Lab Sample ID: 0803106-005A Matrix: Groundwater

% Solids: $\underline{0}$ Initial Calibration ID: $\underline{1212}$ File ID: $\underline{M4730.D}$

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 28-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 25 mL

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	1.00	2.00	1.00	2	***************************************	U
Bromomethane	0.380	6.00	0.380	2		U
Carbon tetrachloride	0.500	2.00	0.500	2		U
Chlorobenzene	0.320	1.00	0.320	2		U
Chloroethane	1.00	2.00	1.00	2		U
Chloroform	0.200	1.00	0.200	2		U
Chloromethane	1.00	2.00	1.00	2		U
cis-1,2-Dichloroethene	0.320	2.00	0.320	2		U
cis-1,3-Dichloropropene	0.500	1.00	0.500	2		U
Dibromochtoromethane	0.320	1.00	0.320	2	,	U
Dibromomethane	0.320	2.00	0.320	2		U
Dichlorodifluoromethane	0.500	2.00	0.500	2		U
Ethylbenzene	0.200	2.00	0.200	2		U
Hexachlorobutadiene	1.00	2.00	1.00	2		U
Isopropylbenzene	0.320	2.00	63.9	2		
Methyl tert-butyl ether	1.00	10.0	1.00	2		U
Methylene chloride	0.320	2.00	0.320	2		U
n-Butylbenzene	0.320	2.00	2.20	2		
n-Propylbenzene	0.200	2.00	7.22	2		
Naphthalene	1.00	2.00	1.00	2		U
o-Xylene	0.320	2.00	0.320	2		U
p-Isopropyltoluene	0.320	2.00	1.92	2		F
sec-Butylbenzene	0.320	2.00	1.84	2		F
Styrene	0.320	2.00	0.320	2		U
tert-Butylbenzene	0.320	2.00	0.320	2	*******	U
Tetrachloroethene	0.200	2.00	0.200	2		U
Toluene	0.200	2.00	0.200	2		U
trans-1,2-Dichloroethene	0.320	2.00	0.320	2		U
trans-1,3-Dichloropropene	0.500	2.00	0.500	2		U
Trichloroethene	0.200	2.00	0.200	2		υ
Trichlorofluoromethane	0.200	2.00	0.200	2		U
Vinyl chloride	1.00	2.00	1.00	2		U

Comments:	
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Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M12313SA

Lab Sample ID:

0803106-005A

Matrix:

Groundwater

% Solids:

Field Sample ID:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4730.D

Date Analyzed: 28-Mar-08

Date Received:

21-Mar-08

Date Extracted:

Sample Size:

<u>25 mL</u>

Concentration Units (ug/L or m	g/Kg dry wei	ght): µg/L
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Analyte	MDL	RL	Concentration		Confirm Qualifier
Xylenes (total)	0.520	4.00	0.520	2	υ

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	115	72 - 119	
4-Bromofluorobenzene	116	76 - 119	
Toluene-d8	115	81 - 120	

Internal Stu	Area Counts	Area Count Limits Qualifie	r
1,4-Dichlorobenzene-d4	1917740	992054 - 3968218	
Chlorobenzene-d5	2981066	1470392 - 5881570	
Fluorobenzene	5863087	2867034 - 11468136	

Comments:	
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QAPP 4.0

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SA

Lab Sample ID:

0803106-005AMS

Matrix:

Aqueous

% Solids:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4726.D

Date Received:

Date Extracted:

Date Analyzed:

28-Mar-08

21-Mar-08 Concentration Units (ug/L or mg/Kg dry weight):

µg/L

Sample Size:

<u>25 mL</u>

Analyte	MDL	RE	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.200	4.00	41.6	. 2		,,,
1,1,1,2-Tetrachloroethaпe	0.500	1.00	21.3	2		
1,1,1-Trichloroethane	0.320	2.00	19.3	2		
1,1,2,2-Tetrachloroethane	0.320	1.00	21.4	2		
1,1,2-Trichloroethane	0.500	2.00	23.8	2		:
1.1-Dichloroethane	0.320	2.00	22.2	2		
1,1-Dichtoroethene	0.500	2.00	23.5	2		
1,1-Dichloropropene	0.500	2.00	19.6	2		
1,2,3-Trichlorobenzene	1.00	2.00	20.1	2	 ,	
1,2,3-Trichloropropane	2.00	4.00	18.8	2		
1,2,4-Trichtorobenzene	1.00	2.00	20.3	2		
1,2,4-Trimethylbenzene	0.320	2.00	31.2	2	**	
1,2-Dibromo-3-chloropropane	5.00	10.0	21.4	2		
1,2-Dibromoethane	0.500	2.00	21.9	2		
1,2-Dichlorobenzeле	0.320	2.00	21.1	2		
1,2-Dichloroethane	0.500	1.00	21.5	2		
1,2-Dichloropropane	0.320	2.00	21.6	2		
1,3,5-Trimethylbenzene	0.320	2.00	26.2	2		
1,3-Dichlorobenzene	0.320	2.00	21.8	2		
1,3-Dichloropropane	0.320	1.00	21.4	2		
1,4-Dichlorobenzene	0.320	1.00	21.2	2		
1-Chlorohexane	0.500	2.00	20.2	2		
2,2-Dichloropropane	1.00	2.00	20.0	2	1,	
2-Butanone	5.00	20.0	86.9	2		M
2-Chlorotoluene	0.200	2.00	20.6	2		
4-Chlorotoluene	0.200	2.00	23.2	2		
4-Methyl-2-pentanone	2.00	20.0	61.7	2		М
Acetone	5.00	20.0	90.1	2		М
Вепzепе	0.320	1.00	22.1	2		•
Bromobenzene	0.320	2.00	20.3	2	-	
Bromochloromethane	0.320	2.00	20.5	2		
Bromodichloromethane	0.320	1.00	21.3	2	*- 	

Comments:

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SA

Lab Sample ID:

0803106-005AMS

Matrix:

<u>Aqueous</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4726.D

Date Received:

Date Extracted:

Date Analyzed:

28-Mar-08

21-Mar-08 Concentration Units (ug/L or mg/Kg dry weight):

μg/L

Sample Size:

<u>25 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	1.00	2.00	18.8	2		
Bromomethane	0.380	6.00	16.9	2		
Carbon tetrachloride	0.500	2.00	19.5	2		
Chlorobenzene	0.320	1.00	21.4	2		
Chloroethane	1.00	2.00	17.8	2		
Chloroform	0.200	1.00	21.2	2		
Chloromethane	1.00	2.00	20.6	2		
cis-1,2-Dichloroethene	0.320	2.00	23.2	2		
cis-1,3-Dichloropropene	0.500	1.00	22.3	2		
Dibromochloromethane	0.320	1.00	22.1	2		
Dibromomethane	0.320	2.00	20.1	2		
Dichlorodifluoromethane	0.500	2.00	20.4	2		· • · ·
Ethylbenzene	0.200	2.00	22.5	2		
Hexachlorobutadiene	1.00	2.00	22.2	2		
Isopropylbenzene	0.320	2.00	84.7	2	* *** ## ALS	J
Methyl tert-butyl ether	1.00	10.0	22.6	2		
Methylene chloride	0.320	2.00	21.7	2		
n-Butylbenzene	0.320	2.00	21.0	2		
n-Propylbenzene	0.200	2.00	30.5	2		:
Naphthalene	1.00	2.00	25.0	2		<u> </u>
o-Xylene	0.320	2.00	20.9	2		
p-Isopropyltoluene	0.320	2.00	21.4	2		
sec-Butylbenzene	0.320	2.00	22.2	2		
Styrene	0.320	2.00	19.3	2	-	
tert-Butylbenzene	0.320	2.00	22.7	2		
Tetrachloroethene	0.200	2.00	21.8	2		
Toluene	0.200	2.00	22.7	2		
trans-1,2-Dichloroethene	0.320	2.00	20.7	2		
trans-1,3-Dichloropropene	0.500	2.00	20.3	2		
Trichloroethene	0.200	2.00	21.6	2		
Trichlorofluoromethane	0.200	2.00	20.7	2		
Vinyl chloride	1.00	2.00	20.2	2		

Comments:

Analytical Method: SW8260B

TF3M12313SA

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-005AMS

Matrix:

<u>Aqueous</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4726.D

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Lab Sample ID:

Date Analyzed:

28-Mar-08

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

μg/L

Sample Size:

<u>25 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
Xylenes (total)	0.520	4.00	62.5	2	

Surrogate	Recovery	Control Limits Qualifier	
1,2-Dichloroethane-d4	108	72 - 119	
4-Bromofluorobenzene	106	76 - 119	
Toluene-d8	112	81 - 120	

Internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	1909951	992054 - 3968218
Chlorobenzene-d5	2776834	1470392 - 5881570
Fluorobenzene	5274990	2867034 - 11468136

Comments:	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SA

Lab Sample ID:

0803106-005AMSD

Matrix:

<u>Aqueous</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1212

File ID:

M4727.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 28-Mar-08

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

μg/L

Sample Size:

<u>25 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifie
(m+p)-Xylene	0.200	4.00	43.2	2	
1,1,1,2-Tetrachloroethane	0.500	1.00	22.2	2	
1,1,1-Trichloroethane	0.320	2.00	19.9	2	
1,1,2,2-Tetrachloroethane	0.320	1.00	22.9	2	
1,1,2-Trichloroethane	0.500	2.00	24.2	2	
1,1-Dichloroethane	0.320	2.00	23.0	2	
1,1-Dichloroethene	0.500	2.00	24.9	2	
1,1-Dichloropropene	0.500	2.00	20.2	2	
1,2,3-Trichlorobenzene	1.00	2.00	20.1	2	
1,2,3-Trichloropropane	2.00	4.00	17.5	2	
1,2,4-Trichlorobenzene	1.00	2.00	21.3	2	i
1,2,4-Trimethylbenzene	0.320	2.00	32.6	2	
1,2-Dibromo-3-chloropropane	5.00	10.0	22.6	2	
1,2-Dibromoethane	0.500	2.00	22.5	2	
1,2-Dichlorobenzene	0.320	2.00	22.2	2	
1,2-Dichloroethane	0.500	1.00	22.4	2	
1,2-Dichloropropane	0.320	2.00	22.5	2 :	
1,3,5-Trimethylbenzene	0.320	2.00	27.2	2	· ·
1,3-Dichlorobenzene	0.320	2.00	23.0	2	
1,3-Dichloropropane	0.320	1.00	22.0	2	
1,4-Dichlorobenzene	0.320	1.00	22.2	2	
1-Chlorohexane	0.500	2.00	20.2	2	
2,2-Dichloropropane	1.00	2.00	20.5	2	
2-Butanone	5.00	20.0	96.0	2	M
2-Chlorotoluene	0.200	2.00	23.3	2	
4-Chlorotoluene	0.200	2.00	22.9	2	
4-Methyl-2-pentanone	2.00	20.0	62.5	2	M
Acetone	5.00	20.0	88.7	2	М
Benzene	0.320	1.00	23.0	2	
Bromobenzene	0.320	2.00	21.4	2	
Bromochloromethane	0.320	2.00	21.2	2	
Bromodichloromethane	0.320	1.00	22.0	2	

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Co	mm	ents	::

Analytical Method: SW8260B Preparatory Method: AAB #: R13111

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12313SA Lab Sample ID: 0803106-005AMSD Matrix: Aqueous

% Solids: 0 Initial Calibration ID: 1212 File ID: M4727.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 28-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 25 mL

Analyte.	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	1.00	2.00	19.5	2		
Bromomethane	0.380	6.00	16.4	2		
Carbon tetrachloride	0.500	2.00	20.1	2		
Chlorobenzene	0.320	1.00	22.0	2		
Chloroethane	1.00	2.00	17.3	2		
Chloroform	0.200	1.00	22.1	2		
Chloromethane	1.00	2.00	19.4	2		
cis-1,2-Dichloroethene	0.320	2.00	23.9	2		
cis-1,3-Dichloropropene	0.500	1.00	22.2	. 2		
Dibromochloromethane	0.320	1.00	22.2	2		
Dibromomethane	0.320	2.00	20.6	2		
Dichlorodifluoromethane	0.500	2.00	19.4	2		
Ethylbenzene	0.200	2.00	23.5	2		
Hexachlorobutadiene	1.00	2.00	22.8	2		
Isopropylbenzene	0.320	2.00	85.0	2		J
Methyl tert-butyl ether	1.00	10.0	23.8	2		
Methylene chloride	0.320	2.00	23.0	2		
n-Butylbenzene	0.320	2.00	22.5	2		
п-Propylbenzene	0.200	2.00	31.8	2		
Naphthalene	1.00	2.00	25.5	2		
o-Xylene	0.320	2.00	21.7	2		
p-Isopropyltoluene	0.320	2.00	22.1	2		
sec-Butylbenzene	0.320	2.00	23.0	2		
Styrene	0.320	2.00	19.9	2		
tert-Butylbenzene	0.320	2.00	23.8	2		
Tetrachloroethene	0.200	2.00	21.9	2		
Toluene	0.200	2.00	22.6	2		:
trans-1,2-Dichloroethene	0.320	2.00	20.8	2		
trans-1,3-Dichloropropene	0.500	2.00	20.2	2		
Trichloroethene	0.200	2.00	22.2	2		
Trichlorofluoromethane	0.200	2.00	20.1	2		
Vinyl chloride	1.00	2.00	19.9	2	• •	

Comments:	

Analytical Method: SW8260B

TF3M12313SA

Preparatory Method:

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Lab Sample ID:

0803106-005AMSD

64.9

Matrix:

<u>Aqueous</u>

% Solids:

Field Sample ID:

<u>0</u>

File ID:

M4727.D

Initial Calibration ID: 1212

RL

4.00

28-Mar-08

Date Received:

Xylenes (total)

21-Mar-08

Date Extracted:

Sample Size:

Date Analyzed:

<u>25 mL</u>

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

Analyte

MDL

0.520

Concentration Dilution C	onfirm Qualifier	
CONCENDATION CAMPON C	Millin Manner	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	109	76 - 119	
Toluene-d8	110	81 - 120	,

Internal Std:	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1952252	992054 - 3 96 8218	
Chlorobenzene-d5	2870196	1470392 - 5881570	
Fluorobenzene	5529068	2867034 - 11468136	

Comments:					
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	 	 ~ -	 	 	
		 	 <u> </u>		

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SC

Lab Sample ID:

0803106-006A

Matrix:

Groundwater

% Solids:

Initial Calibration ID: 1204

File ID:

Q

T1970.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): μg/L Sample Size: <u>10 mL</u>

Analyte MDL Concentration Dilution Confirm Qualifier RL (m+p)-Xylene 0.200 4.00 0.200 2 1,1,1,2-Tetrachloroethane 0.500 1.00 0.500 2 U 1,1,1-Trichloroethane 0.320 2.00 0.320 2 U 1,1,2,2-Tetrachloroethane 0.320 2 1.00 0.320 u 1,1,2-Trichloroethane 0.500 2 U 2.00 0.500 1,1-Dichloroethane 2 0.320 U 2.00 0.320 1,1-Dichloroethene 0.500 2.00 0.500 2 U 1,1-Dichloropropene 0.500 2.00 0.500 2 U 1,2,3-Trichlorobenzene 1.00 2.00 2 U 1.00 1,2,3-Trichloropropane 2.00 4.00 2.00 2 U 1,2,4-Trichlorobenzene U 1.00 2 2.00 1.00 1,2,4-Trimethylbenzene 0.320 2.00 9.56 2 2 1,2-Dibromo-3-chloropropane 5.00 10.0 5.00 U 1,2-Dibromoethane 0.500 2 U 2.00 0.500 1,2-Dichlorobenzene 0.320 2.00 0.320 2 U 1,2-Dichloroethane 2 U 0.500 1.00 0.500 1,2-Dichloropropane 0.320 2.00 0.320 2 U 1,3,5-Trimethylbenzene 0.320 2.00 2.16 2 1,3-Dichlorobenzene 2 U 0.320 2.00 0.320 1,3-Dichloropropane 2 U 0.320 1.00 0.320 1,4-Dichlorobenzene 0.320 1.00 0.320 2 U 1-Chlorohexane 0.500 2.00 0.500 2 U 2,2-Dichloropropane 2 1.00 2.00 1.00 U 2-Butanone 5.00 5.00 U 20.0 2 2-Chlorotoluene 0.200 2.00 0.200 2 U 4-Chlorotoluene 0.200 2.00 0.200 2 U 4-Methyl-2-pentanone 2.00 20.0 2.00 2 U Acetone 5.00 20.0 5.00 2 U Benzene 0.320 0.320 2 U 1.00 Bromobenzene 0.320 2.00 0.320 2 U Bromochloromethane 0.320 2 2.00 0.320 U Bromodichloromethane U 0.320 1.00 0.320 2

Comments.	

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Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12313SC

Lab Sample ID:

0803106-006A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1204

File ID:

T1970.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	1.00	2.00	1.00	2	erazmano in hittali idiki ir 454 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	U
Bromomethane	0.380	6.00	0.380	2		U
Carbon tetrachloride	0.500	2.00	0.500	2		U
Chlorobenzene	0.320	1.00	0.320	2		U
Chloroethane	1.00	2.00	1.00	2		U
Chloroform	0.200	1.00	0.200	2 :		U
Chloromethane	1.00	2.00	1.00	2		U
cis-1,2-Dichloroethene	0.320	2.00	0.320	2		U
cis-1,3-Dichloropropene	0.500	1.00	0.500	2		U
Dibromochloromethane	0.320	1.00	0.320	2		U
Dibromomethane	0.320	2.00	0.320	2		U
Dichlorodifluoromethane	0.500	2.00	0.500	2		U
Ethylbenzene	0.200	2.00	0.200	2		U
Hexachlorobutadiene	1.00	2.00	1.00	2	• •	U
Isopropylbenzene	0.320	2.00	52.6	2		
Methyl tert-butyl ether	1.00	10.0	1.00	2		U
Methylene chloride	0.320	2.00	0.320	2		U
n-Butylbenzene	0.320	2.00	1.06	2		F
n-Propylbenzene	0.200	2.00	5.62	2		
Naphthalene	1.00	2.00	1.00	2		U
o-Xylene	0.320	2.00	0.320	2		U
p-Isopropyltoluene	0.320	2.00	1.20	2		F
sec-Butylbenzene	0.320	2.00	1.02	2		F
Styrene	0.320	2.00	0.320	2		U
tert-Butylbenzene	0.320	2.00	1.00	2		F
Tetrachloroethene	0.200	2.00	0.200	2		U
Toluene	0.200	2.00	0.200	2		υ
trans-1,2-Dichloroethene	0.320	2.00	0.320	2		U
trans-1,3-Dichloropropene	0.500	2.00	0.500	2		U
Trichloroethene	0.200	2.00	0.200	2		U
Trichlorofluoromethane	0.200	2.00	0.200	2		U
Vinyl chloride	1.00	2.00	1.00	2		U

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COIN	rrier	IIX:

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M12313SC

Lab Sample ID:

0803106-006A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1970.D

Date Received:

Field Sample ID:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifler
Xylenes (total)	0.520	4.00	0.520	2		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	101	76 - 119	
Toluene-d8	104	81 - 120	

internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	745650	306228 - 1224912
Chlorobenzene-d5	831035	370666 - 1482666
Fluorobenzene	1937094	849584 - 3398336

Comments:		
	 	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12613SA

Lab Sample ID:

0803106-007A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1971.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed: 24-Mar-08

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

μg/L

Sample Size:

<u>10 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
(m+p)-Xylene	0.100	2.00	0.100	1	U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1	: U
1,1,1-Trichloroethane	0.160	1.00	0.160	1	U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.160	1.00	0.160	1	U
1,1-Dichloroethene	0.250	1.00	0.250	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	U
1,2,3-Trichloropropane	1.00	2.00	1.00	1	U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1	U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
1,2-Dichlorobeпzene	0.160	1.00	0.160	1	U
1,2-Dichloroethane	0.250	0.500	0.250	1	U
1,2-Dichloropropane	0.160	1.00	0.160	1	U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1	U
1,3-Dichlorobenzene	0.160	1.00	0.160	1	U
1,3-Dichloropropane	0.160	0.500	0.160	1	U
1,4-Dichlorobenzene	0.160	0.500	0.160	1	U
1-Chlorohexane	0.250	1.00	0.250	1	U
2,2-Dichloropropane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
2-Chlorotoluene	0.100	1.00	0.100	1	U
4-Chlorotoluene	0.100	1.00	0.100	1	U
4-Methyl-2-pentanone	1.00	10.0	1.00	1	U
Acetone	2.50	10.0	2.50	1	U
Berizene	0.160	0.500	0.160	1	U
Bromobenzene	0.160	1.00	0.160	1	į U
Bromochloromethane	0.160	1.00	0.160	1	U
Bromodichloromethane	0.160	0.500	0.160	1	U

Comments:

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M12613SA

Lab Sample ID:

0803106-007A

Matrix:

Groundwater

% Solids:

Field Sample ID:

0

Initial Calibration ID: 1204

File ID:

T1971.D

Date Received:

Date Extracted:

Date Analyzed: 24-Mar-08

21-Mar-08

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

Sample Size:

Analyte	MDL	RL	Concentration	Dilution Confirm	Qualifier
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.190	3.00	0.190	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.160	0.500	0.160	1	U
Chloroethane	0.500	1.00	0.500	1	U
Chloroform	0.100	0.500	0.100	1	U
Chloromethane	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1	U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1 .	U
Dibromochloromethane	0.160	0.500	0.160	1	U
Dibromomethane	0.160	1.00	0.160	1	u
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
Ethylbenzeпe	0.100	1.00	0.100	1	U
Hexachlorobutadiene	0.500	1.00	0.500	1	บ
Isopropylbenzene	0.160	1.00	0.160	: 1	U
Methyl tert-butyl ether	0.500	5.00	0.500	1	U
Methylene chloride	0.160	1.00	0.160	1	U
п-Butylbenzene	0.160	1.00	0.160	1	U
n-Propylbenzene	0.100	1.00	0.100	1	U
Naphthalene	0.500	1.00	0.500	1	U
o-Xylene	0.160	1.00	0.160	1	U
p-Isopropyltoluene	0.160	1.00	0.160	1	U
sec-Butylbenzene	0.160	1.00	1.97	1	
Styrene	0.160	1.00	0.160	1	, U
tert-Butylbenzene	0.160	1.00	0.610	1	F
Tetrachloroethene	0.100	1.00	0.100	1	U
Toluene	0.100	1.00	0.100	1	
trans-1,2-Dichloroethene	0.160	1.00	0.160	1	U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	U
Trichloroethene	0.100	1.00	0.100	1	U
Trichlorofluoromethane	0.100	1.00	0.100	1	U
Vinyl chloride	0.500	1.00	0.500	1	U

Comments:

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-007A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1971.D

Date Received:

Field Sample ID:

21-Mar-08

TF3M12613SA

Date Extracted:

Lab Sample ID:

Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): <u>μg/L</u>

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Xylenes (total)	0.260	2.00	0.260	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	104	72 - 119	
4-Bromofluorobenzene	104	76 - 119	
Toluene-d8	110	81 - 120	

Internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	721397	306228 - 1224912
Chlorobenzene-d5	844654	370666 - 1482666
Fluorobenzene	1901815	849584 - 3398336

comments:	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12712SA

Lab Sample ID:

0803106-008A

Matrix:

<u>Groundwater</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1991.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

25-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifie
(m+p)-Xylene	0.100	2.00	12.3	1		
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1 .		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1	XX	U
1,2,4-Trimethylbenzene	0.160	1.00	14.5	1		
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		υ
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.730	1		
Bromobenzene	0.160	1.00	0.160	1	·	U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1	·	U

Comments:		

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12712SA

Lab Sample ID:

0803106-008A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1991.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

25-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifie
Bromoform	0.500	1.00	0.500	1	nem or or or or or of the first to the first	U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1 1		U
Chloromethane	0.500	1.00	0.500	1		Ü
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1	·	U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	15.6	1		
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	0.160	1.00	3.79	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chtoride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.160	1		U
n-Propylbenzene	0.100	1,00	3.39	1		
Naphthalene	0.500	1.00	3.83	1		
o-Xylene	0.160	1.00	0.160	1	—	U
p-Isopropyltoluene	0.160	1.00	0.400	1		F
sec-Butylbenzene	0.160	1.00	0.260	1		F
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.160	1		U
Tetrachloroethene	0.100	1.00	0.100	1		U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	·	U
Trichloroethene	0.100	1.00	0.130	1		F
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U

Comments:		
	 	 -
	 	 -
	 	 -

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-008A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1991.D

Date Received:

Field Sample ID:

21-Mar-08

TF3M12712SA

Date Extracted:

Lab Sample ID:

Date Analyzed:

25-Mar-08

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

<u>μg/L</u>

Sample Size:

Analyte	MDL	RL	Concentration	ı Dilution	Confirm Qualifier
Xylenes (total)	0.260	2.00	12.3	1	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	111	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	103	81 - 120	

Internal Std	Area Counts	Area Count Limits (Qualifier
1,4-Dichlorobenzene-d4	714543	306228 - 1224912	
Chlorobenzene-d5	785982	370666 - 1482666	
Fluorobenzene	1750969	849584 - 3398336	

Comments:				
	 -	 	 	

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: <u>Life Science Laboratories, Inc.</u> Contract #:

Field Sample ID: TF3M12813SA Lab Sample ID: 0803106-009A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1204 File ID: T1973.D

Date Received:21-Mar-08Date Extracted:Date Analyzed:24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 10 mL

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.380	1	/////// 0.040.0.04034.03011.0306//	F
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		υ
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,4-Trimethylbenzene	0.160	1.00	0.640	1		F
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1 1	*****	U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1	·· ·	U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1		U
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:	
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Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M12813SA

Lab Sample ID:

0803106-009A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1973.D

24-Mar-08

Date Received:

21-Mar-08

Date Extracted:

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

<u>μα/L</u>

Date Analyzed: Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifie
Bromoform	0.500	1.00	0.500	1	alder de Marcellada de Legislada (ser esta de la proposició de la proposició de la consecució de l'Alberta (de	U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.630	1		F
Hexachlorobutadiene	0.500	1.00	0.500	1	·	U
Isopropylbenzene	0.160	1.00	0.390	1		F
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.160	1		U
n-Propylbenzene	0.100	1.00	0.260	. 1		F
Naphthalene	0.500	1.00	0.680	1		F
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	0.160	1		U
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.160	1		U
Tetrachloroethene	0.100	1.00	0.100	1		: U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U
Trichloroethene	0.100	1.00	0.100	1		U
Trichlorofluoromethane	0.100	1.00	0.100	1		Ü
Vinyl chloride	0.500	1.00	0.500	1		U

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M12813SA

Lab Sample ID:

0803106-009A

Matrix:

Groundwater

% Solids:

Field Sample ID:

0

T1973.D

Initial Calibration ID: 1204

File ID:

24-Mar-08

Date Received:

21-Mar-08

Date Extracted:

Sample Size:

Date Analyzed:

<u>10 mL</u>

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

μg/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifler
Xylenes (total)	0.260	2.00	0.380	1		F
•			 	•		

Surrogate	Recovery	Control Limits Qualifier	
1,2-Dichloroethane-d4	107	72 - 119	
4-Bromofluorobenzene	101	76 - 119	
Toluene-d8	103	81 - 120	

Internal Std.	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	711486	306228 - 1224912
Chlorobenzene-d5	827511	370666 - 1482666
Fluorobenzene	1885202	849584 - 3398336

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	···		 · · · · · · · · · · · · · · · · · · ·

Comments:

Analytical Method: SW8260B Preparatory Method: AAB #: R13058

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: <u>TF3M13315SA</u> Lab Sample ID: <u>0803106-010A</u> Matrix: <u>Groundwater</u>

% Solids: 0 Initial Calibration ID: 1204 File ID: T1974.D

Date Received: 21-Mar-08 Date Extracted: Date Analyzed: 24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): ug/L Sample Size: 10 mL

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.590	1		F
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1	,	U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		u
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		υ
1,2,4-Trimethylbenzene	0.160	1.00	16.2	1		
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		υ
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1	<u></u>	U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1		U
Bromobenzene	0.160	1.00	0.160	1		υ
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1	•	U

Comments:				
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Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M13315SA

Lab Sample ID:

<u>0803106-010A</u>

Matrix:

<u>Groundwater</u>

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1974.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

Concentration Units (ug/L or mg/Kg dry weight): <u>μg/L</u> Sample Size: <u>10 mL</u>

Analyte	MOL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1		U
Chloroform	0.100	0.500	0.100	1	,	U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		. U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.240	1		F
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropyłbenzene	0.160	1.00	8.70	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.960	1		F
n-Propylbenzene	0.100	1.00	9.23	1		
Naphthalene	0.500	1.00	1.69	1		
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltolueпе	0.160	1.00	1.98	1	 - · · ·	
sec-Butylbenzene	0.160	1.00	4.31	1		
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.640	1		F
Tetrachloroethene	0.100	1.00	0.100	1		U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1	 -	U
Trichloroethene	0.100	1.00	0.100	1		U
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U

Comments:	
	_

Analytical Method: SW8260B

TF3M13315SA

Preparatory Method:

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

0803106-010A

Matrix:

Groundwater

% Solids:

Field Sample ID:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1974.D

Date Received:

21-Mar-08

Date Extracted:

Lab Sample ID:

Date Analyzed:

24-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm Qualifier
Xylenes (total)	0.260	2.00	0.590	1 :	F

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dîchloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	99	76 - 119	
Toluene-d8	108	81 - 120	

internal Stol	Area Counts	Area Count Limits: Qualifier
1,4-Dichlorobenzene-d4	726032	306228 - 1224912
Chlorobenzene-d5	835070	370666 - 1482666
Fluorobenzene	1896765	849584 - 3398336

Comments:	
	

Analytical Method: SW8260B

OVVOZOUB

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M13315SC

Lab Sample ID:

0803106-011A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1204

File ID:

T1975.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

<u>μg/L</u>

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.700	1		F
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1 1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1	· ,· -· —	U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropeпе	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		. Ų
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,4-Trimethylbenzene	0.160	1.00	18.2	1		
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	1		U
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	1		U
1,2-Dichloroethane	0.250	0.500	0.250	1		U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1		U
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:					
	 	 	 	 	
	 	 	 	 	-

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID: TF3M13315SC Lab Sample ID:

0803106-011A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1204

File ID:

T1975.D

Date Received:

21-Mar-08

Date Extracted:

Date Analyzed:

24-Mar-08

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

μg/L

Sample Size:

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1	- 1	U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1	-	U
Dichlorodifluoromethane	0.250	1.00	0.250	, 1		U
Ethylbenzene	0.100	1.00	0.280	1		F
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenzene	0.160	1.00	9.75	1		
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	1.02	1		
n-Propylbenzene	0.100	1.00	10.4	1	···	
Naphthalene	0.500	1.00	1.77	1	·	
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltoluene	0.160	1.00	2.21	1		
sec-Butylbenzene	0.160	1.00	4.82	1		
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.710	1		F
Tetrachloroethene	0.100	1.00	0.100	1		U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		U
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U
Trichloroethene	0.100	1.00	0.100	1		U
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U

Comments:

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

Xylenes (total)

TF3M13315SC

Lab Sample ID:

0803106-011A

Concentration

0.700

Matrix:

Groundwater

% Solids:

Ō

Initial Calibration ID: 1204

RL

2.00

File ID:

Dilution

1

T1975.D

Date Received:

Analyte

Date Analyzed:

24-Mar-08

21-Mar-08

Date Extracted:

Sample Size:

<u>10 mL</u>

Qualifier

F

Concentration Units (ug/L or mg/Kg dry weight):	<u>μg/L</u>

MDL

0.260

ilution	Con	firm	Qua	lifi

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene 48	100	81 120	

internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	724238	306228 - 1224912
Chlorobenzene-d5	842690	370666 - 1482666
Fluorobenzene	1908082	849584 - 3398336

Comments:	
	



GC/MS Volatile Organics Data

AFCEE ORGANIC ANALYSES DATA SHEET 3 INITIAL MULTIPOINT CALIBRATION-GC/MS ANALYSIS

Analytical Method: 8260B

AAB#:

Lab Name: Life Science Laboratories, Inc. Contract #: Date of Initial Calibration: 18-MAR-08 Instrument ID: HP5973 GCMS#1 Concentration Units (ug/L or mg/kg): ug/L Initial Calibration ID: 1204 SEE ATTACHED Comments: AFCEE FORM O-3

```
: C:\HPCHEM\1\METHODS\T318VOCW.M (RTE Integrator)
   Method
               : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
   Title
   Last Update : Tue Mar 18 16:12:25 2008
   Response via : Continuing Calibration
                                                          ICAL # 1204
   Calibration Files
                              =T1902.D 2.0
=T1905.D 30
                     1.0
20
   0.5
          =T1901.D
                                                     =T1903.D
          =T1904.D
                                                     =T1906.D
   10
                                                             30 Avg
                       0.5 1.0 2.0 10 20
                                                                            %RSD
       Compound
                              -----ISTD-----
 1) I
        Fluorobenzene
        Dichlorodifluoromet 0.240 0.265 0.237 0.348 0.327 0.348 0.299 16.73
 2)
        Chloromethane 0.368 0.360 0.338 0.423 0.405 0.428 0.389 Vinyl chloride 0.281 0.292 0.263 0.367 0.349 0.369 0.324
                                                                          8.76
 3) P
                                                                         13.51
 4) CP Vinyl chloride
                                                                         13.19
                           0.131 0.125 0.112 0.145 0.143 0.159 0.140
 5)
       Bromomethane
                                                                         13.11
                       0.146 0.163 0.155 0.198 0.193 0.205 0.179
 6)
        Chloroethane
        Trichlorofluorometh 0.322 0.343 0.310 0.441 0.418 0.451 0.387 15.47
 7)
                            0.061 0.055 0.047 0.051 0.048 0.052 0.052
        Acetone
 8)
                                                                         118.97
                             0.020 0.022 0.023 0.029 0.029 0.032 0.027
 9)
        Acrolein
10) CPM 1,1-Dichloroethene 0.155 0.148 0.146 0.210 0.196 0.201 0.180
                                                                         16.02
                                   0.037 0.074 0.201 0.223 0.227 0.168
                                                                         53.01
        Methyl iodide
11)
                                                                         19.62
        1,1,2-Trichloro-1,2 0.170 0.182 0.164 0.260 0.244 0.247 0.217
12)
        Methyl acetate 0.116 0.128 0.108 0.130 0.124 0.127 0.122 Acrylonitrile 0.050 0.050 0.049 0.059 0.056 0.060 0.055
13)
                                                                         8.20
14)
        Methylene chloride 0.296 0.257 0.225 0.266 0.245 0.247 0.255
                                                                         8.73
15)
        Carbon disulfide 0.676 0.704 0.647 0.883 0.838 0.891 0.782 13.12
16)
       trans-1,2-Dichloroe 0.189 0.204 0.183 0.261 0.243 0.246 0.225
                                                                         14.20
17)
        Methyl tert-Butyl e 0.507 0.532 0.492 0.608 0.546 0.472 0.527
                                                                         8.34
18)
       1,1-Dichloroethane 0.417 0.427 0.391 0.511 0.480 0.486 0.457
                                                                          9.80
19) P
        Vinyl acetate 0.262 0.304 0.278 0.350 0.327 0.369 0.318 2-Butanone 0.070 0.063 0.061 0.068 0.065 0.071 0.066
                                                                         12.18
20)
                                                                         5.36
21)
                                                                         9.79
        cis-1,2-Dichloroeth 0.232 0.229 0.223 0.283 0.268 0.271 0.254
22)
        Bromochloromethane 0.084 0.093 0.092 0.116 0.107 0.110 0.102
                                                                         11.70
23)
                            0.423 0.407 0.369 0.472 0.438 0.449 0.429
                                                                         7.84
24) CP Chloroform
        2,2-Dichloropropane 0.329 0.344 0.311 0.441 0.413 0.426 0.385
                                                                         14.31
25)
        Cyclohexane 0.378 0.386 0.356 0.551 0.515 0.522 0.462 18.26
26)
        1,2-Dichloroethane- 0.225 0.231 0.216 0.272 0.255 0.261 0.245
                                                                         8.60
27) S
        1,2-Dichloroethane 0.271 0.270 0.264 0.323 0.304 0.313 0.293
                                                                          8.26
28)
                                                                         16.09
        1,1,1-Trichloroetha 0.316 0.309 0.300 0.431 0.407 0.420 0.372
29)
        1,1-Dichloropropene 0.285 0.289 0.276 0.398 0.378 0.383 0.342
30)
        Carbon tetrachlorid 0.199 0.204 0.189 0.304 0.302 0.318 0.263
31)
                            0.972 1.015 0.943 1.236 1.158 1.167 1.093
                                                                         10.40
32) M
        Benzene
        Trichloroethene 0.229 0.231 0.220 0.294 0.278 0.281 0.259 Dibromomethane 0.095 0.101 0.103 0.123 0.118 0.118 0.111
                                                                         12.14
33) M
                                                                          <u>9.</u>73
34)
                                                                        20.63
        Methylcyclohexane 0.358 0.372 0.349 0.548 0.521 0.530 0.460
35)
36) CP 1,2-Dichloropropane 0.234 0.236 0.228 0.286 0.268 0.271 0.256
                                                                          9.02
        Bromodichloromethan 0.221 0.248 0.222 0.307 0.298 0.310 0.275 15 40
37)
                                               0.003 0.002 0.001 0.001
                                                                         183.62
        2-Chloroethylvinyl
38)
        4-Methyl-2-pentanon 0.120 0.130 0.121 0.146 0.142 0.157 0.138
                                                                         10.35
39)
                                                                         15.10
        cis-1,3-Dichloropro 0.306 0.319 0.305 0.413 0.402 0.418 0.369
40)
                            0.809 0.871 0.819 1.072 1.000 1.014 0.943
                                                                         11.31
41) S
        Toluene-d8
                             0.644 0.671 0.623 0.822 0.770 0.783 0.728
                                                                        10.97
42) CPM Toluene
        trans-1,3-Dichlorop 0.246 0.247 0.238 0.334 0.327 0.341 0.297
43)
```

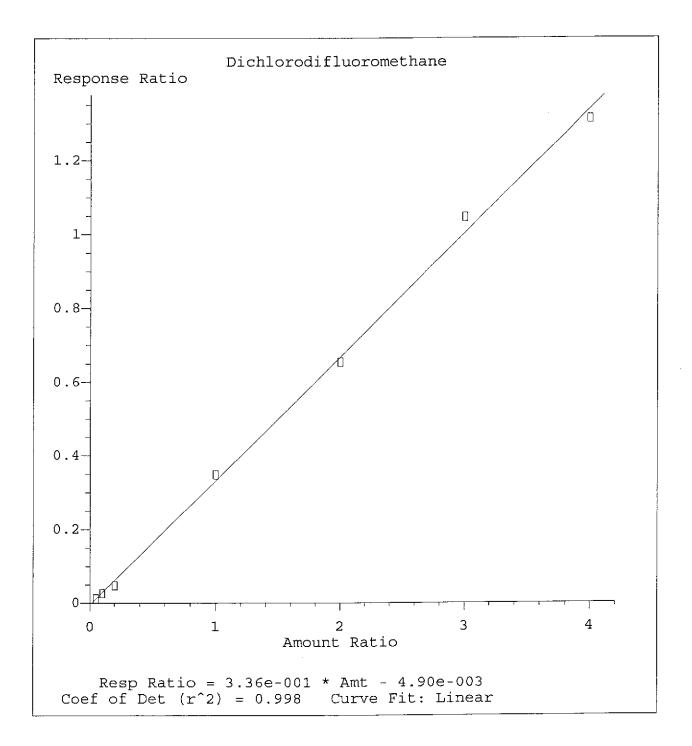
: C:\HPCHEM\1\METHODS\T318VOCW.M (RTE Integrator) Method : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df Title Last Update : Tue Mar 18 16:12:25 2008 Response via : Continuing Calibration Calibration Files =T1902.D 2.0 =T1903.D 0.5 =T1901.D 1.0 =T1906.D 10 20 =T1905.D 30 =T1904.D Avq %RSD 10 20 30 Compound 0.5 1.0 2.0 1,1,2-Trichloroetha 0.117 0.134 0.129 0.157 0.149 0.150 0.141 44) 0.084 0.089 0.084 0.103 0.103 0.113 0.098 45) 2-Hexanone -----ISTD------46) I Chlorobenzene-d5 0.301 0.318 0.313 0.389 0.382 0.390 0.355 11.61 47) 1,2-Dibromoethane 1,3-Dichloropropane 0.691 0.689 0.668 0.824 0.785 0.788 0.747 8.27 48) Dibromochloromethan 0.296 0.312 0.295 0.428 0.438 0.459 0.385 20.88 49) Tetrachloroethene 0.509 0.571 0.504 0.733 0.695 0.689 0.630 15.63 50) 16.36 0.730 0.729 0.695 0.998 0.969 0.971 0.869 51) 1-Chlorohexane 1,1,1,2-Tetrachloro 0.364 0.368 0.364 0.510 0.513 0.529 0.456 52) Chlorobenzene 1.584 1.595 1.502 1.892 1.794 1.791 1.708 8.49 53) PM 2.904 3.020 2.801 3.700 3.478 3.462 3.255 10.51 54) CP Ethylbenzene 1.033 1.080 1.053 1.378 1.311 1.307 1.209 1.010 1.062 0.995 1.333 1.270 1.278 1.175 1.477 1.679 1.609 2.194 2.116 2.137 1.908 0.155 0.142 0.159 0.229 0.244 0.262 0.210 (m+p)-Xylene 12.14 55) 12.44 56) o-Xylene 16.0I 57) Styrene ل26.77 ك 58) P Bromoform Bromofluorobenzene 0.857 0.846 0.747 0.952 0.904 0.906 0.875 7.62 59) S 1,4-Dichlorobenzene-d ------ISTD------60) I 31.05 0.044 0.053 0.082 0.090 0.098 0.078 trans-1,4-Dichloro-61) 1,1,2,2-Tetrachloro 0.521 0.541 0.517 0.604 0.570 0.579 0.558 5.85 62) P 3.549 3.628 3.377 4.552 4.219 4.204 3.950 10.94 63) Isopropylbenzene 6.17 1,2,3-Trichloroprop 0.467 0.499 0.455 0.544 0.514 0.513 0.501 64) 0.805 0.826 0.741 0.943 0.890 0.898 0.858 8.12 65) Bromobenzene 4.027 4.179 4.002 5.468 5.122 5.058 4.683 12.80 66) n-Propylbenzene 2.900 2.876 2.709 3.524 3.275 3.292 3.125 9.47 67) 2-Chlorotoluene 2.436 2.592 2.438 3.107 2.923 2.923 2.764 4-Chlorotoluene 9.79 68) 1,3,5-Trimethylbenz 2.664 2.818 2.774 3.760 3.605 3.608 3.262 14.78 69) 2.390 2.467 2.343 3.305 3.132 3.150 2.849 14.93 70) tert-Butylbenzene 1,2,4-Trimethylbenz 2.337 2.506 2.443 3.435 3.346 3.365 2.977 17.33 71) 16.74 3.421 3.560 3.392 4.975 4.732 4.700 4.197 sec-Butylbenzene 72) 1,3-Dichlorobenzene 1.536 1.593 1.478 1.890 1.769 1.784 1.694 9.23 73) 2.615 2.780 2.728 3.997 3.883 3.879 3.396 (19.05)74) p-Isopropyltoluene 1,4-Dichlorobenzene 1.515 1.549 1.437 1.813 1.718 1.727 1.644 8.62 75) 1.885 1.947 1.958 3.151 3.206 3.241 2.678 26.23 QUAD n-Butylbenzene 76) 1,2-Dichlorobenzene 1.435 1.465 1.355 1.685 1.587 1.619 1.539 7.83 77) 1,2-Dibromo-3-chlor 0.047 0.073 0.070 0.094 0.093 0.096 0.081 22.95 78) 1,2,4-Trichlorobenz 0.662 0.645 0.673 0.955 0.994 1.017 0.862 22.45 79) Hexachlorobutadiene 0.500 0.549 0.520 0.759 0.741 0.758 0.660 19.62 80) 0.673 0.688 0.736 1.120 1.297 1.339 1.044 32.32 QUAR 81) Naphthalene ر<u>78 . 2</u>1 1,2,3-Trichlorobenz 0.600 0.639 0.631 0.899 0.930 0.947 0.808 82)

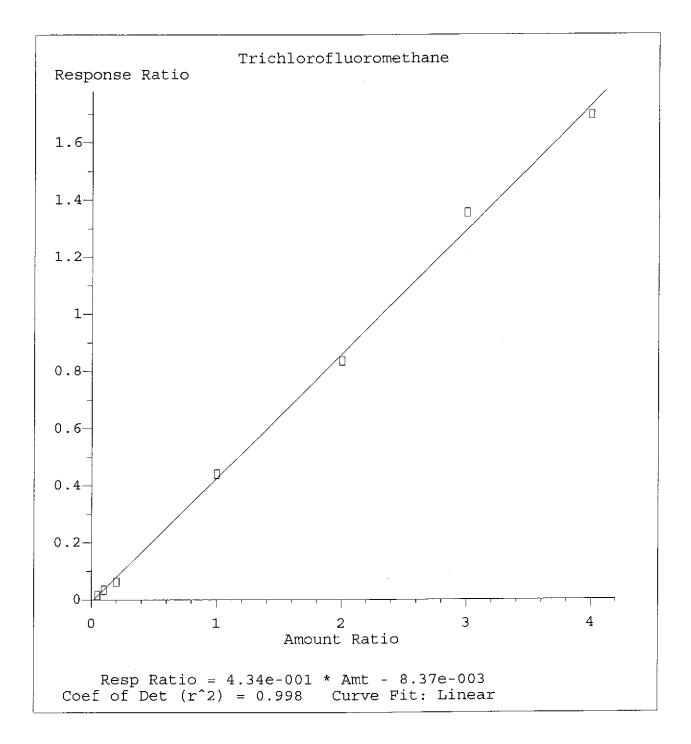
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: C:\HPCHEM\1\METHODS\T318VOCW.M (RTE Integrator)
  Method
               : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
  Title
  Last Update : Thu Mar 20 09:38:45 2008
  Response via : Initial Calibration
  Calibration Files
   40
          =T1907.D
                              40
        Compound
 1)
   Ι
       Fluorobenzene
       Dichlorodifluoromet 0.328
 2)
       Chloromethane 0.400
 3) P
4) CP Vinyl chloride
                           0.345
       Bromomethane
                            0.163
 5)
 6)
       Chloroethane
                            0.191
       Trichlorofluorometh 0.424
 7)
                            0.049
 8)
       Acetone
       Acrolein
                            0.032
9)
10) CPM 1,1-Dichloroethene 0.204
       Methyl iodide
                            0.246
11)
       1,1,2-Trichloro-1,2 0.252
12)
       Methyl acetate
                            0.122
13)
       Acrylonitrile
                            0.056
14)
       Methylene chloride 0.248
15)
       Carbon disulfide
                            0.832
16)
       trans-1,2-Dichloroe 0.248
17)
       Methyl tert-Butyl e 0.531
18)
19) P
       1,1-Dichloroethane 0.485
       Vinyl acetate
                            0.336
20)
        2-Butanone
21)
        cis-1,2-Dichloroeth 0.271
22)
23)
       Bromochloromethane 0.109
24) CP Chloroform
                            0.448
        2,2-Dichloropropane 0.432
25)
        Cyclohexane
                            0.528
26)
27) S
        1,2-Dichloroethane- 0.256
        1,2-Dichloroethane 0.308
28)
        1,1,1-Trichloroetha 0.419
29)
        1,1-Dichloropropene 0.386
30)
        Carbon tetrachlorid 0.326
31)
       Benzene
                            1.156
32) M
33) M
       Trichloroethene
                            0.284
                            0.119
       Dibromomethane
34)
       Methylcyclohexane
                           0.543
35)
36) CP 1,2-Dichloropropane 0.271
       Bromodichloromethan 0.314
37)
        2-Chloroethylvinyl
38)
        4-Methyl-2-pentanon 0.148
39)
        cis-1,3-Dichloropro 0.420
40)
                            1.013
41) S
       Toluene-d8
42) CPM Toluene
```

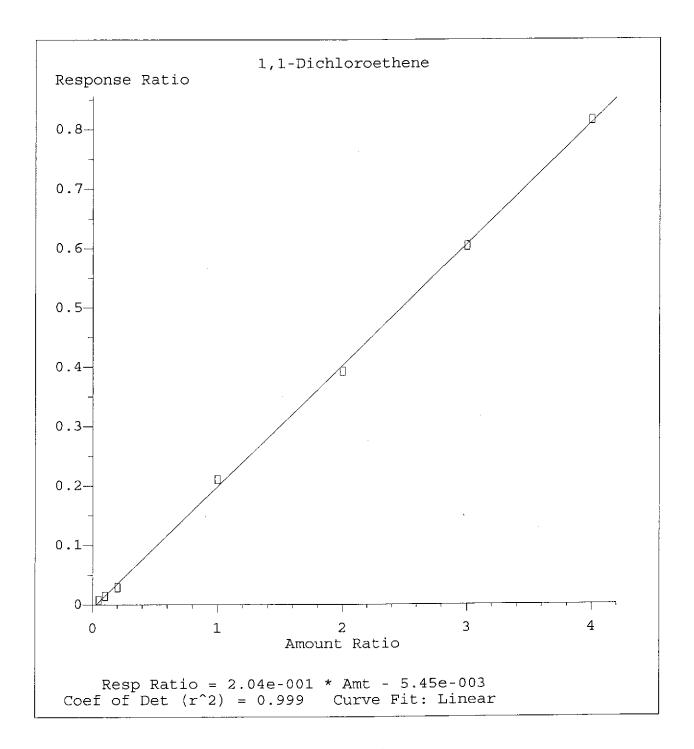
trans-1,3-Dichlorop 0.346

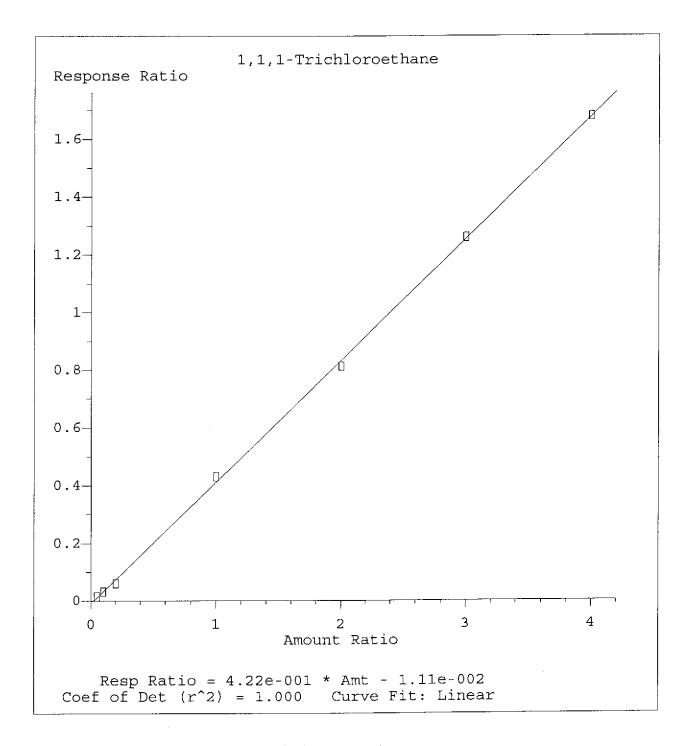
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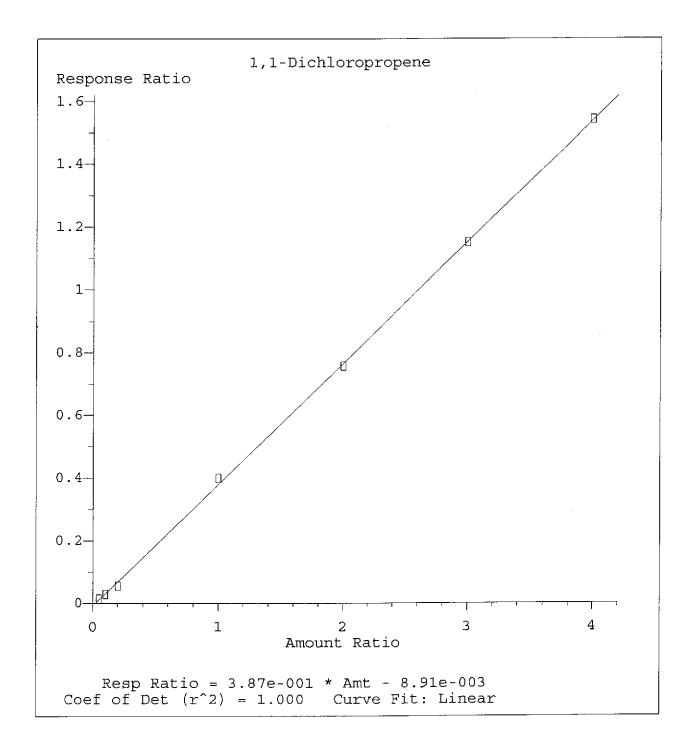
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: C:\HPCHEM\1\METHODS\T318VOCW.M (RTE Integrator)
  Method
               : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
  Title
  Last Update : Thu Mar 20 09:38:45 2008
  Response via : Initial Calibration
  Calibration Files
         =T1907.D
   40
       Compound
       1,1,2-Trichloroetha 0.151
       2-Hexanone
                    0.108
45)
                              46) I
       Chlorobenzene-d5
       1,2-Dibromoethane
                           0.388
47)
       1,3-Dichloropropane 0.782
48)
       Dibromochloromethan 0.470
49)
                           0.706
       Tetrachloroethene
50)
       1-Chlorohexane
                           0.990
51)
       1,1,1,2-Tetrachloro 0.543
52)
53) PM Chlorobenzene
                           1.795
54) CP Ethylbenzene
                           3.423
                           1.303
       (m+p)-Xylene
55)
                           1.281
       o-Xylene
56)
                           2.142
       Styrene
57)
                           0.276
58) P
       Bromoform
       Bromofluorobenzene 0.913
59) S
       1,4-Dichlorobenzene-d ------ISTD-----
60) I
       trans-1,4-Dichloro- 0.101
61)
       1,1,2,2-Tetrachloro 0.577
62) P
       Isopropylbenzene
63)
        1,2,3-Trichloroprop 0.517
64)
       Bromobenzene
                           0.901
65)
                           4.927
66)
       n-Propylbenzene
        2-Chlorotoluene
                           3.300
67)
                           2.932
        4-Chlorotoluene
68)
        1,3,5-Trimethylbenz 3.605
69)
70)
        tert-Butylbenzene
        1,2,4-Trimethylbenz 3.405
71)
                           4.600
        sec-Butylbenzene
72)
        1,3-Dichlorobenzene 1.806
73)
        p-Isopropyltoluene
                           3.892
74)
        1,4-Dichlorobenzene 1.748
75)
                           3.356
        n-Butylbenzene
76)
        1,2-Dichlorobenzene 1.624
77)
        1.2-Dibromo-3-chlor 0.097
78)
        1,2,4-Trichlorobenz 1.091
79)
       Hexachlorobutadiene 0.791
80)
                            1.453
       Naphthalene
81)
        1,2,3-Trichlorobenz 1.010
82)
```

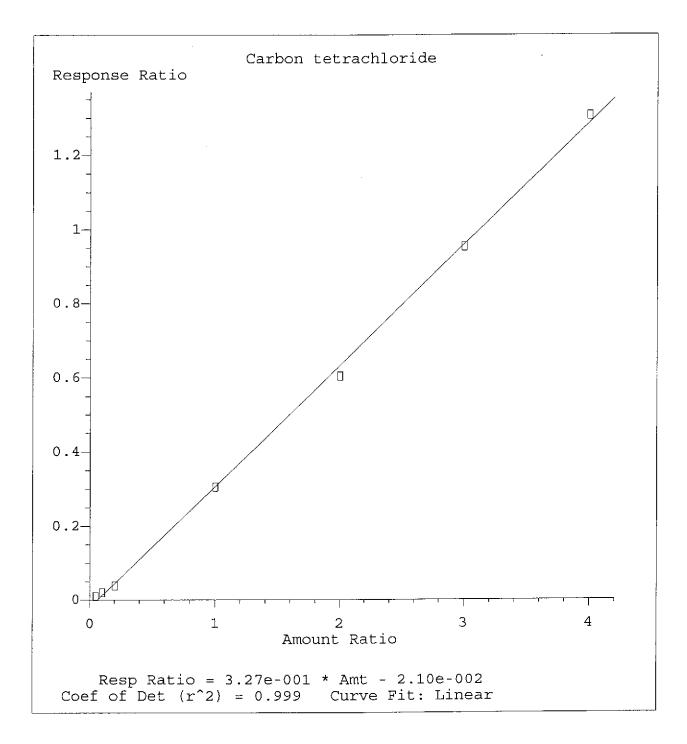


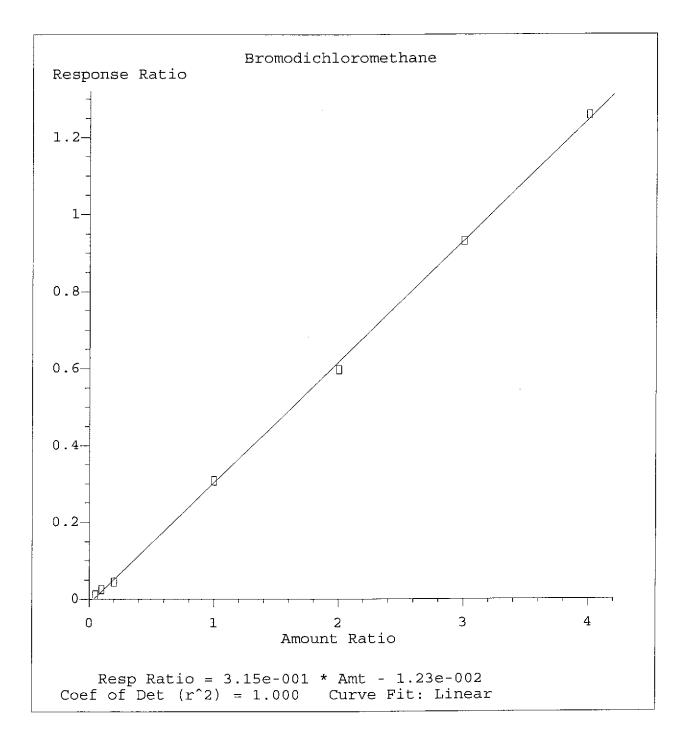


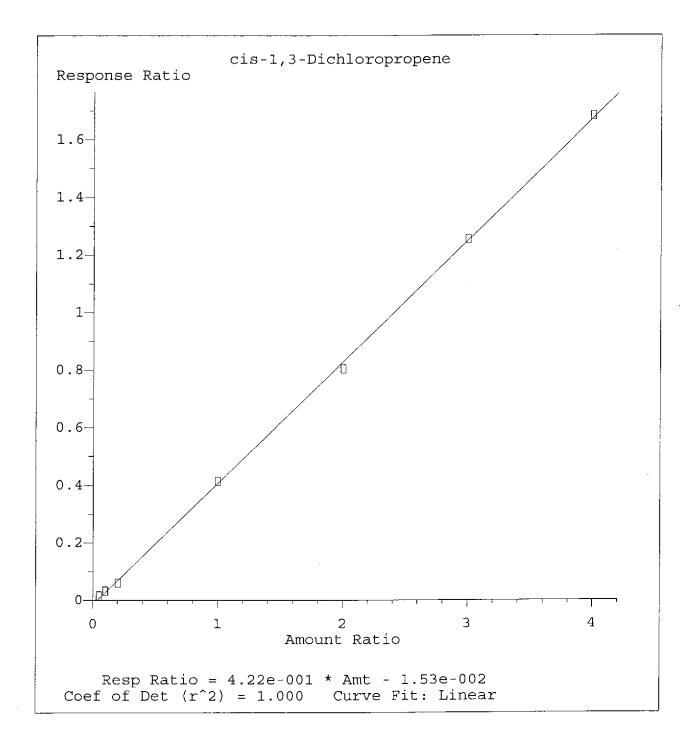


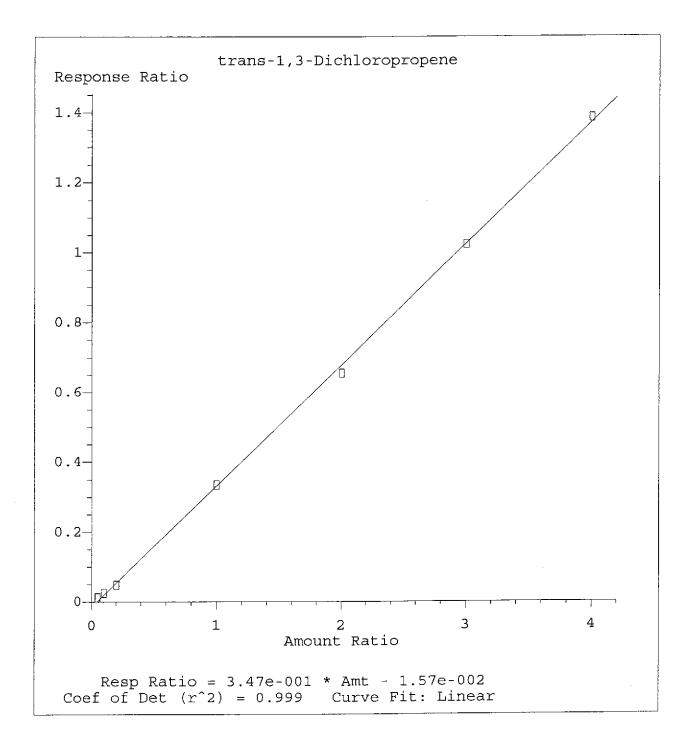


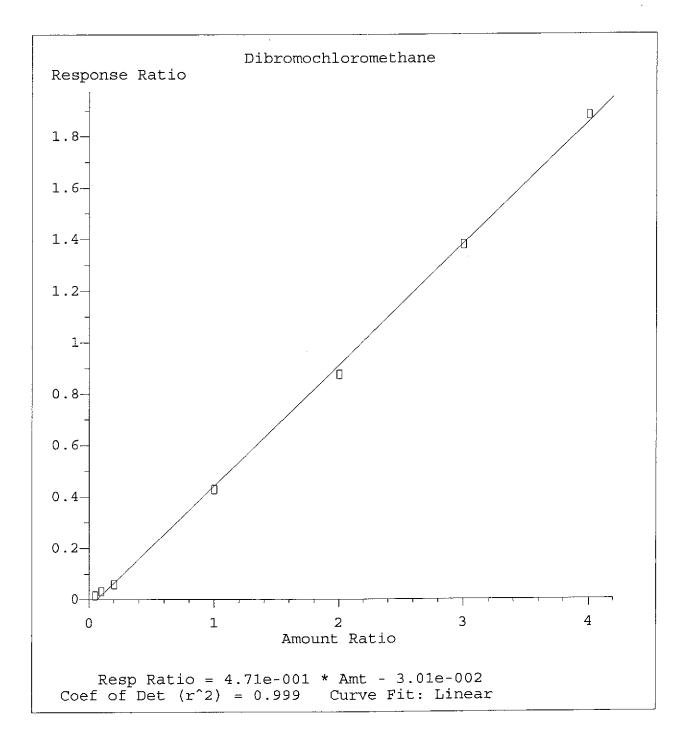


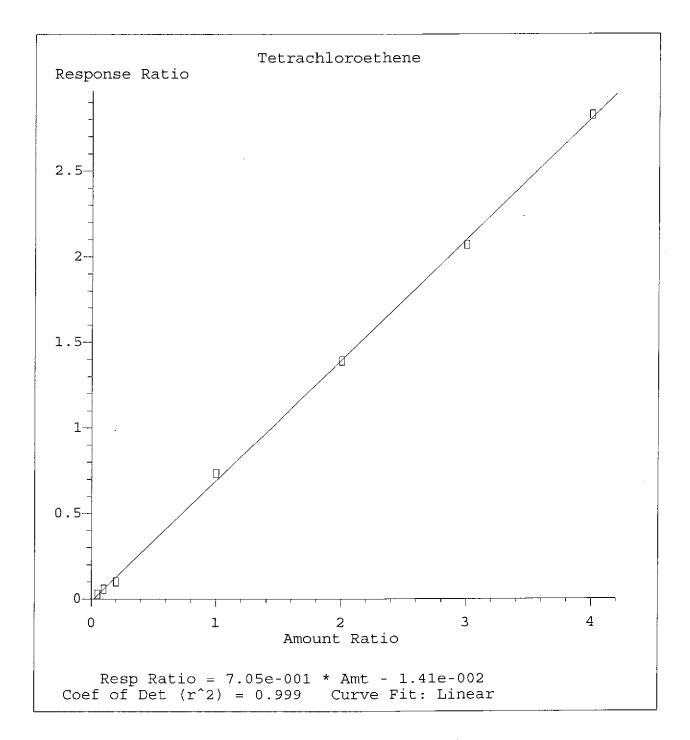


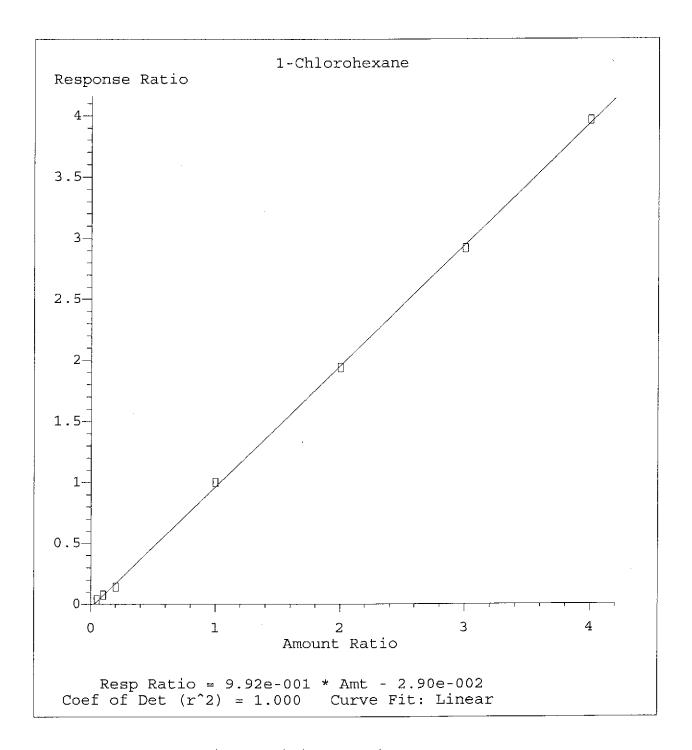


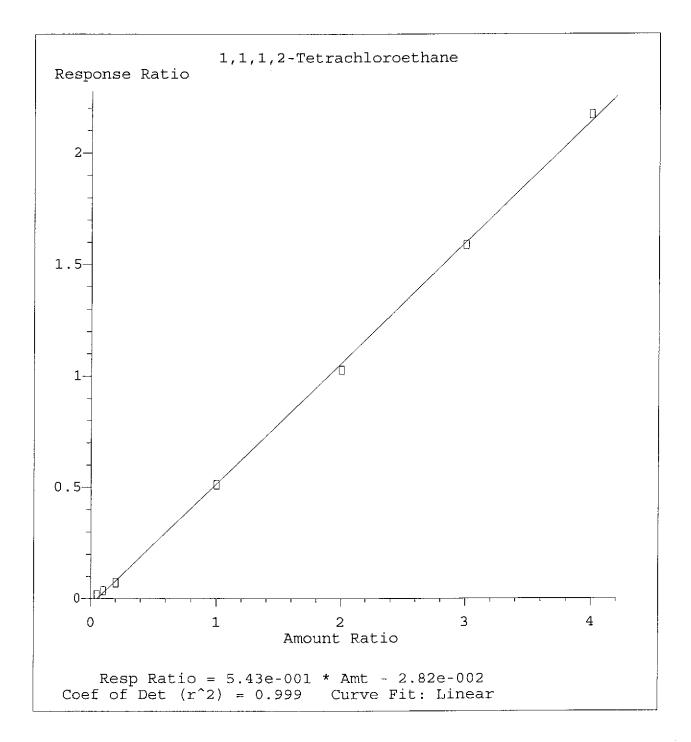


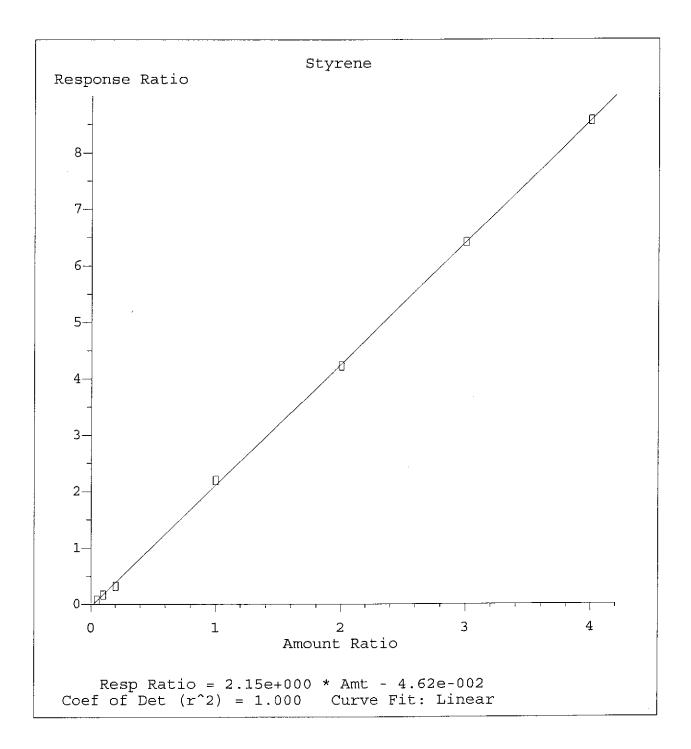


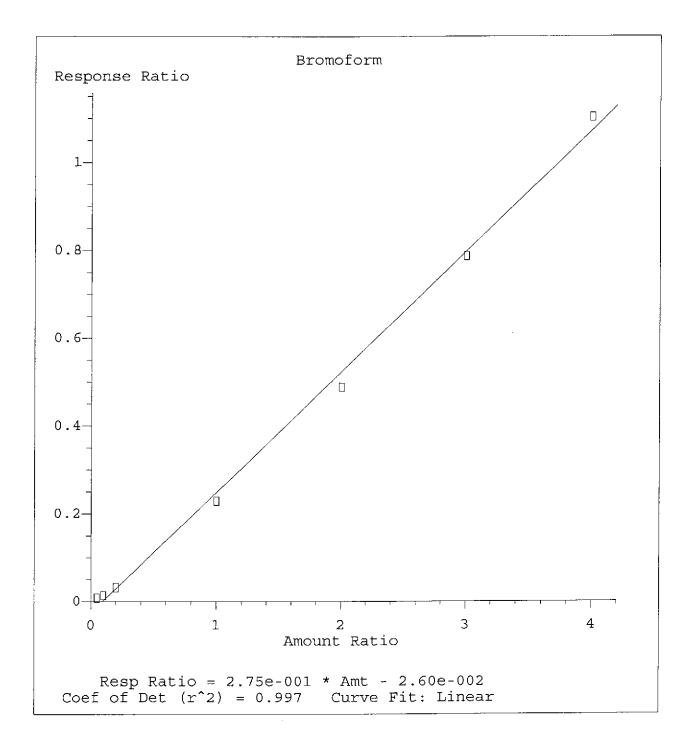


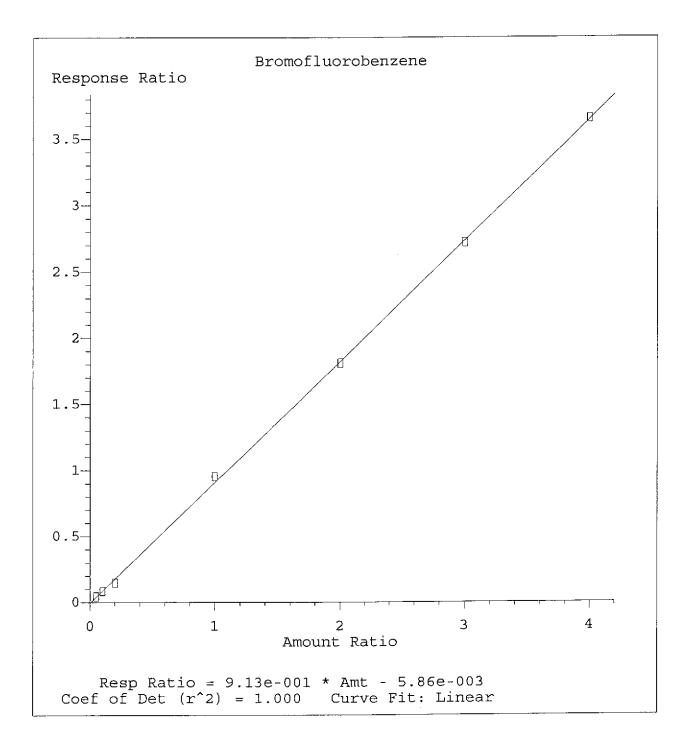


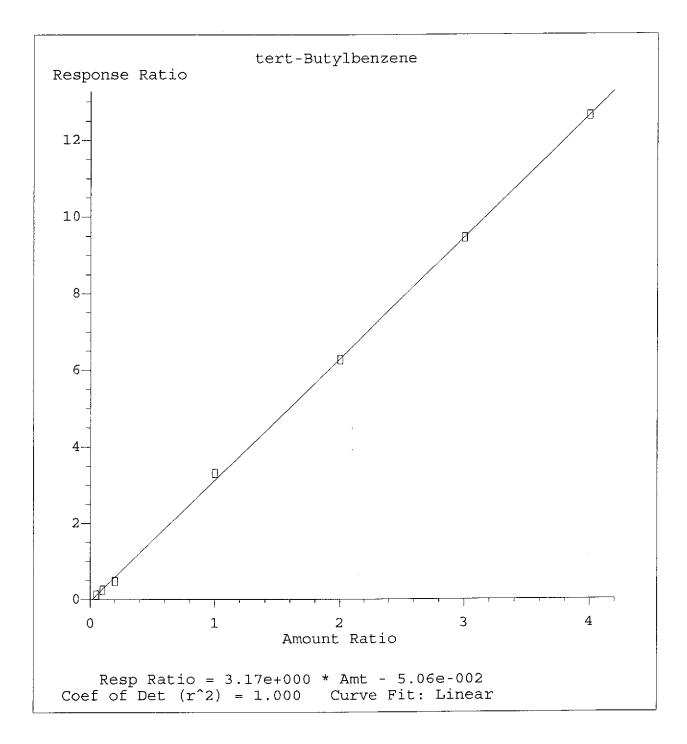


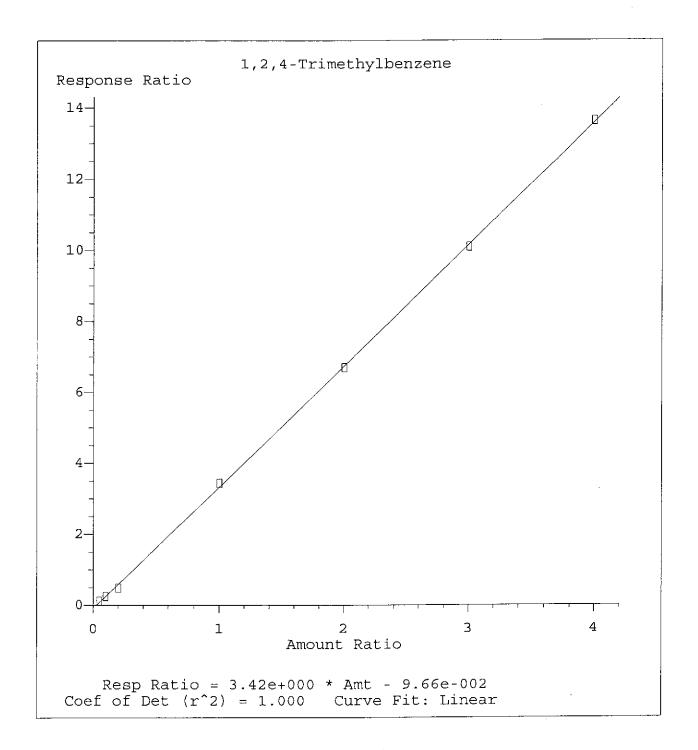


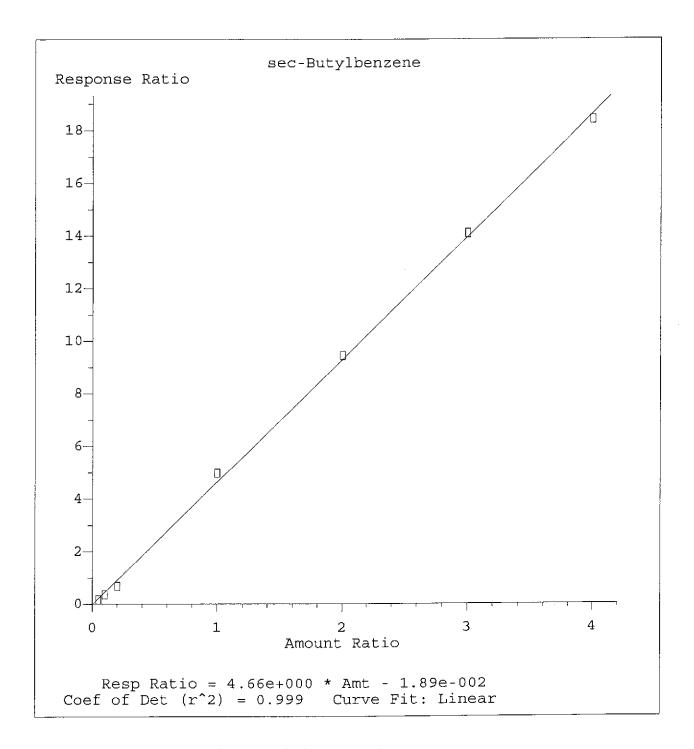


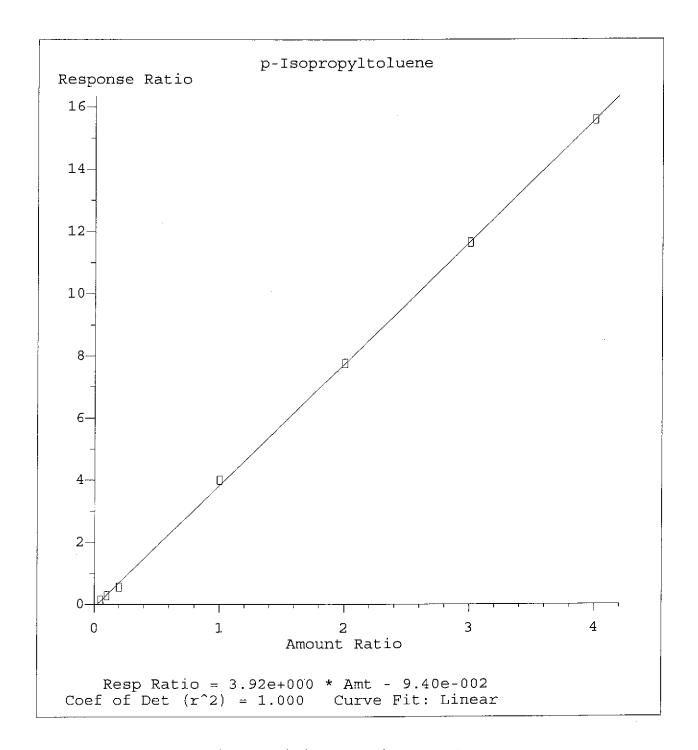


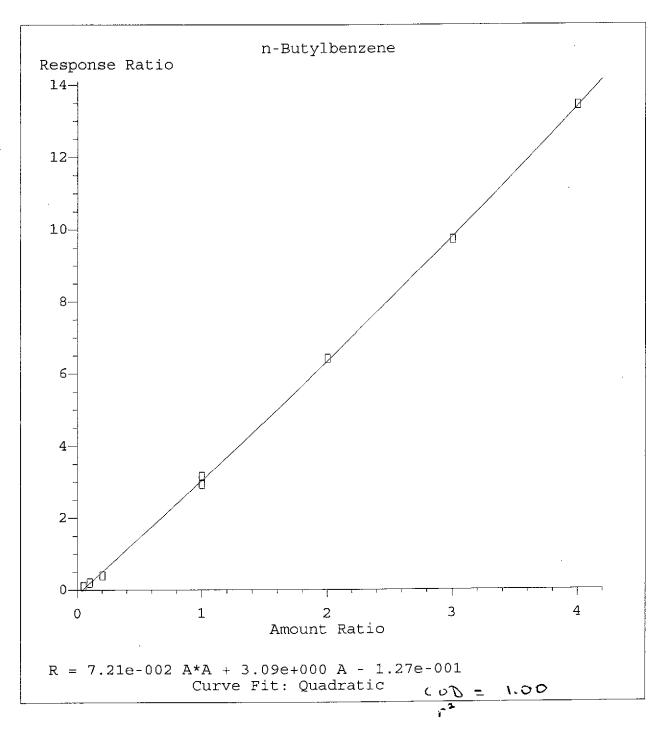


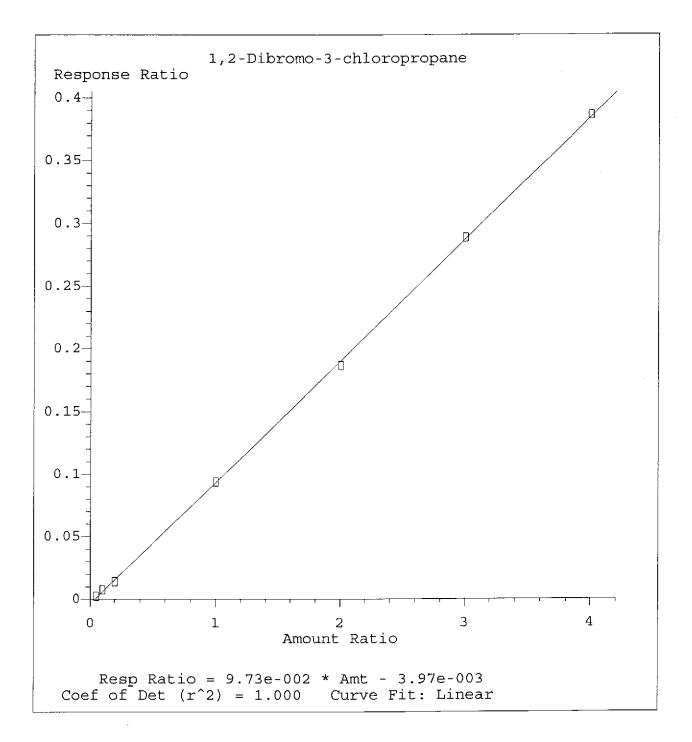


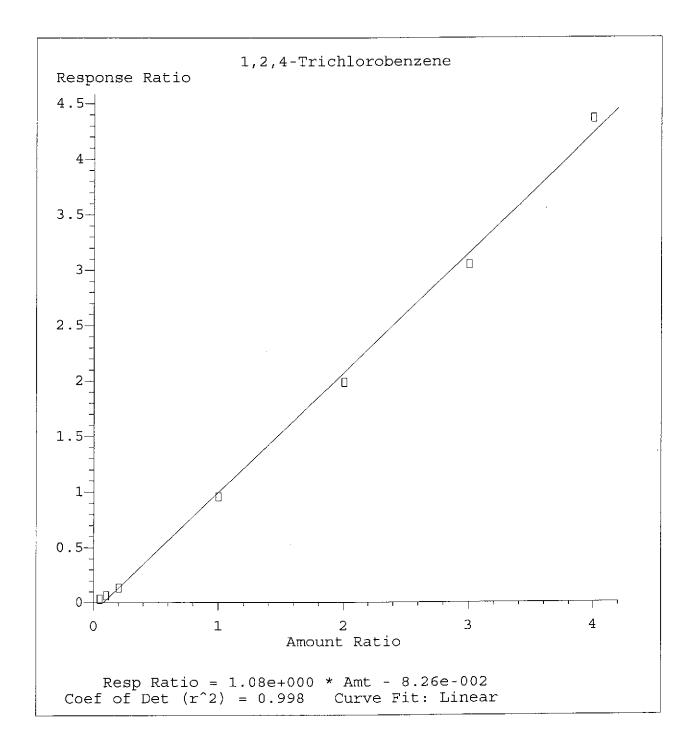


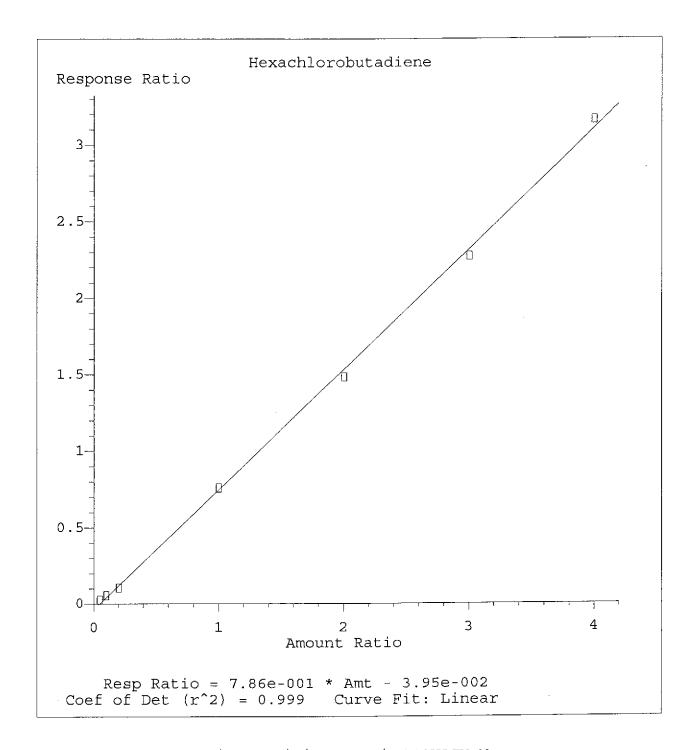


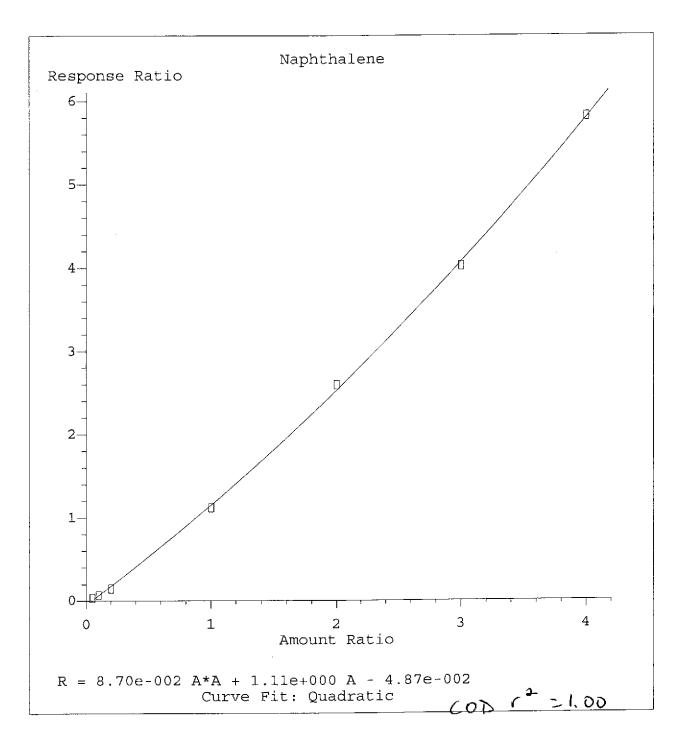


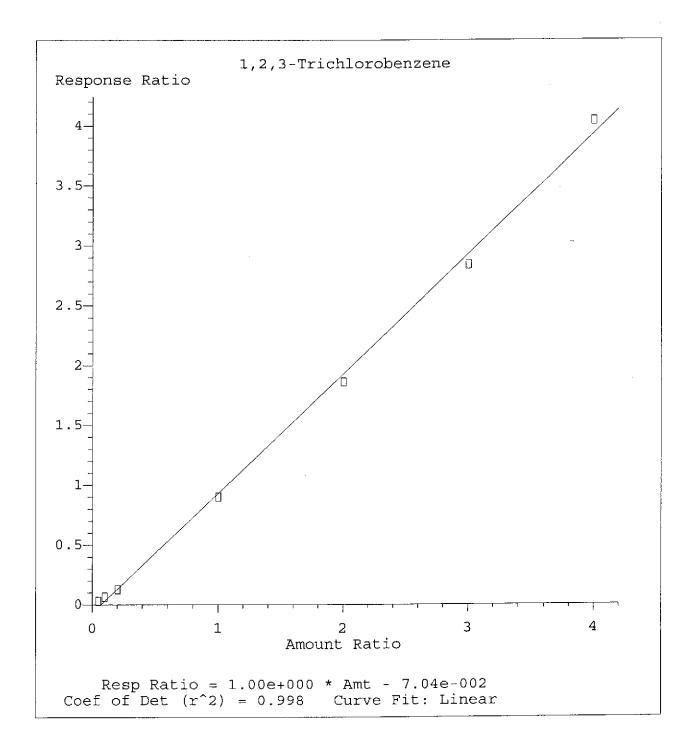












AFCEE ORGANIC ANALYSES DATA SHEET 3 INITIAL MULTIPOINT CALIBRATION-GC/MS ANALYSIS

Analytical Method: 8260B AAB#: Contract #: Lab Name: Life Science Laboratories, Inc. Date of Initial Calibration: 24-MAR-08 Instrument ID: HP5970 GCMS#2 Concentration Units (ug/L or mg/kg): ug/L Initial Calibration ID: 1212 SEE ATTACHED Comments:

```
Method
               : C:\HPCHEM\1\METHODS\M324VOCW.M (RTE Integrator)
           : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df
   Title
                                                              ICAL # 12/2
   Last Update : Mon Mar 31 11:53:16 2008
   Response via : Initial Calibration
   Calibration Files
   0.5 =M4663.D 1.0 =M4664.D 2.0 =M4665.D
10 =M4666.D 20 =M4667.D 30 =M4668.D
       Compound 0.5 1.0 2.0 10 20 30 Avg
                              -----ISTD------
 1) I
        Fluorobenzene
        Dichlorodifluoromet 0.648.0.541.0.579 0.875 0.777 0.777 0.711 17.26
 2)
        Chloromethane 0.266 0.224 0.226 0.291 0.260 0.264 0.257
 3) P
 4) CP Vinyl chloride 30 0.154 0.174 0.186 0.276 0.247 0.254 0.221
                                                                       21.80
        Bromomethane 0.227 0.183 0.182 0.262 0.246 0.258 0.232
                                                                        15.69
 5)
        Chloroethane 0.088 0.046 0.127 0.180 0.161 0.164 0.133
                                                                        36.99
 6)
        Trichlorofluorometh 0.578 0.487 0.529 0.761 0.713 0.711 0.642
 7)
                   0.030 0.029 0.027 0.026 0.024 0.024 0.026#
                                                                         9.03
 8)
        Acetone
 9)
        Acrolein
                     0.006 0.005 0.006 0.007 0.006 0.006 0.006#
10) CPM 1,1-Dichloroethene 0.175 0.168 0.176 0.241 0.236 0.237 0.211 16.89
        Methyl iodide 90 0.225 0.298 0.358 0.583 0.616 0.631 0.480
11)
        1,1,2-Trichloro-1,2 0.477 0.510 0.509 0.699 0.667 0.656 0.596
12)
        Methyl acetate 0.056 0.064 0.072 0.071 0.075 0.075 0.070 10.74 Acrylonitrile 0.014 0.017 0.020 0.021 0.022 0.022 0.020# 15.46
13)
14)
        Methylene chloride 0.396 0.315 0.269 0.272 0.269 0.267 0.294 16.36
15)
        Carbon disulfide 0.663 0.592 0.585 0.794 0.762 0.776 0.709
                                                                        13.22
16)
        trans-1,2-Dichloroe 0.239 0.238 0.253 0.324 0.327 0.327 0.292
                                                                       15.89
17)
        Methyl tert-Butyl e 0.330 0.352 0.335 0.368 0.374 0.366 0.358
18)
        1,1-Dichloroethane 0.474 0.467 0.480 0.583 0.596 0.596 0.543
                                                                        12.08
19) P
        Vinyl acetate 0.183 0.195 0.192 0.220 0.241 0.229 0.213 10.52 2-Butanone 0.037 0.040 0.034 0.046 0.045 0.045 0.042# 11.89
20)
21)
        cis-1,2-Dichloroeth 0.255 0.276 0.273 0.333 0.335 0.334 0.306
                                                                        12.01
22)
        Bromochloromethane 0.143 0.164 0.158 0.189 0.193 0.189 0.176
                                                                        11.68
23)
24) CP Chloroform 0.642 0.614 0.601 0.712 0.726 0.717 0,676
                                                                        8.04
        2,2-Dichloropropane 0.329 0.352 0.349 0.465 0.473 0.460 0.413 15.87
25)
        Cyclohexane 0.261 0.279 0.274 0.384 0.373 0.371 0.331
                                                                       17.02
26)
                                                                         3.40
        1,2-Dichloroethane- 0.226 0.233 0.217 0.233 0.236 0.220 0.227
27) S
                                                                         7.44
        1,2-Dichloroethane 0.255 0.255 0.237 0.280 0.290 0.281 0.269
28)
        1,1,1-Trichloroetha 0.408 0.423 0.429 0.578 0.585 0.582 0.514 17.16
29)
        1,1-Dichloropropene 0.316 0.335 0.336 0.469 0.470 0.469 0.410
30)
                                                                       20.05
        Carbon tetrachlorid 0.387 0.416 0.417 0.593 0.601 0.598 0.517
31)
                 0.722 0.684 0.687 0.860 0.853 0.849 0.789
                                                                        10.95
32) M
        Benzene
        Trichloroethene 0.362 0.358 0.360 0.453 0.451 0.442 0.410
                                                                        11.45
33) M
        Dibromomethane 0.257 0.280 0.260 0.296 0.307 0.289 0.284
                                                                        6.88
34)
                                                                       20.72
        Methylcyclohexane 0.239 0.261 0.264 0.382 0.380 0.377 0.327
35)
       1,2-Dichloropropane 0.266 0.273 0.271 0.317 0.323 0.314 0.298
36) CP
        Bromodichloromethan 0.576 0.611 0.593 0.737 0.753 0.723 0.675
                                                                        11.49
37)
        2-Chloroethylvinyl 0.063 0.062 0.066 0.073 0.077 0.077 0.071
                                                                        10.23
38)
        4-Methyl-2-pentanon 0.095 0.076 0.103 0.090 0.108 0.093 0.097
                                                                       13.34
39)
        cis-1,3-Dichloropro 0.339 0.360 0.352 0.454 0.472 0.458 0.416
                                                                       14.93
40)
41) S Toluene-d8 0.698 0.684 0.670 0.851 0.866 0.836 0.780 42) CPM Toluene 0.438 0.421 0.429 0.556 0.554 0.546 0.501
                                                                        11.60
                                                                        13.35
        trans-1,3-Dichlorop 0.215 0.227 0.230 0.298 0.317 0.314 0.275
43)
```

Method : C:\HPCHEM\1\METHODS\M324VOCW.M (RTE Integrator)
Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df
Last Update : Mon Mar 31 11:53:16 2008
Response via : Initial Calibration

Subject to the second

Calibration Files * Akd / * * *

0.5 =M4663.D 1.0 =M4664.D 2.0 =M4665.D 10 =M4666.D 20 =M4667.D 30 =M4668.D

1.0		=M4000.D	-11	1007.2	. 50		-111000.2			
		Compound	0.5	1.0	2.0	10	20	30	Avg	%RSD
44)		1,1,2-Trichloroetha	0 164	0.182	0.172	0.207	0.210	0.205	0.193	10.18
45)		2-Hexanone						0.083		13.38
10,										
46)	1	Chlorobenzene d5	·			-ISTD-			 -	
47)		1,2-Dibromoethane	0.549	0.614	0.579	0.680	0.715	0.694	0.651	10.79
48)		1,3-Dichloropropane	0.568							8.30
49)		Dibromochloromethan	0.828	0.851	0.867	1.064	1.099	1.060	0.981	12.77
50)		Tetrachloroethene						0.975		13.41
51)		1-Chlorohexane						0.705		23.35
52)		1,1,1,2-Tetrachloro	0.661	0.662	0.634	0.759	0.748	0.731	0.707	7.47
53)	PM	Chlorobenzene						1.285		6.20
54)	CP	Ethylbenzene	1.586	1.489	1.545	1.858	1.813	1.775	1.687	8.56
55)		(m+p)-Xylene o-Xylene Styrene	0.480	0.513	0.502	0.678	0.681	0.682	0.605	16.60
56)		o-Xylene	0.479	0.481	0.510	0.679	0.700	0.686	0.608	18.32
57)										18.55
58)	P	Bromoform						0.609		16.60
59)	S	Bromofluorobenzene	1.079	1.151	1.063	1.253	1.314	1.246	1.191	8.00
			_							
60)	Ι	1,4-Dichlorobenzene	-d			-ISTD-·				100 00
61)	_	trans-1,4-Dichloro-	0.032	0.056	0.054	0.070	0.075	0.078	0.064	28.22
62)	P	1,1,2,2-Tetrachloro	1.003	1.017	0.951	0.968	0.979	0.930	0.970	3.29
63)		Isopropylbenzene	2.361	2.349	2.328	2.941	2.824	2.761	2.622	10.07
64)		1,2,3-Trichloroprop	0.541	0.676	0.491	0.633	0.538	0.595	0.585	11.04
65)		Bromobenzene	1.043	1.035	1.013	1.087	1.050	1.025	1.042	2.24
66)		n-Propylbenzene	2.554	2.462	2.446	3.267	3.221	3.254	2.928	14.15
67)		2-Chlorotoluene	2.519	2.528	2.413	2.569	2.533	2.677	2.518	3.87
68)		4-Chlorotoluene	2.067	1.946	1.884	2.569	2.480	2.255	2.250	12.86
69)		1,3,5-Trimethylbenz	1.372	1.428	1.388	1.814	1.867	1.0/4	1,553	15.15 16.61
70)		tert-Butylbenzene	1.447	1.472	1.488	1.982	2.006	2,033	1 166	16.52
71)		1,2,4-Trimethylbenz		1.251	1.184	1.595	1,000	2.833	2.400	18.82
72)		sec-Butylbenzene 1,3-Dichlorobenzene	1.950	1.941	1.905	2.790	2./JI 1 601	2.033	1 564	7.97
73)			1 220	1 200	T.300	1 006	1 067	2.016	1 702	21.13
74)		p-Isopropyltoluene 1,4-Dichlorobenzene								8.05
75)										23.99
76)		n-Butylbenzene 1,2-Dichlorobenzene	1 221	1.067	1 227	1 /07	1 51/	1 / 1 / 6	1 402	7.29
77)		1,2-Dichtoropenzene 1,2-Dibromo-3-chlor	133 133	T.307	1.22/	0 160	178	1.400 0 171	0 160	10.19
78)		1,2,4-Trichlorobenz	O VDV	0.170	U 1E1	0.100	0.170	0.111	0.573	17.66
79) 80)		Hexachlorobutadiene	0.400	0.4/2	0.E43	0.014	0.007	0.711	0.644	13.86
80) 81)		Naphthalene	0.370	0.330	0.749	0.723	0.700	0.419	0.399	9.69
82)		1,2,3-Trichlorobenz	0.±14	0.302	n 358	0.441	0.474	0.477	0.422	16.08
02)		1,2,5-illicitorobella	0.527	0.37 <u>X</u>	1.7		V. 1, 1	, ,	- ·	التستست)
					- :					

: C:\HPCHEM\1\METHODS\M324VOCW.M (RTE Integrator)

: VOC s w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df

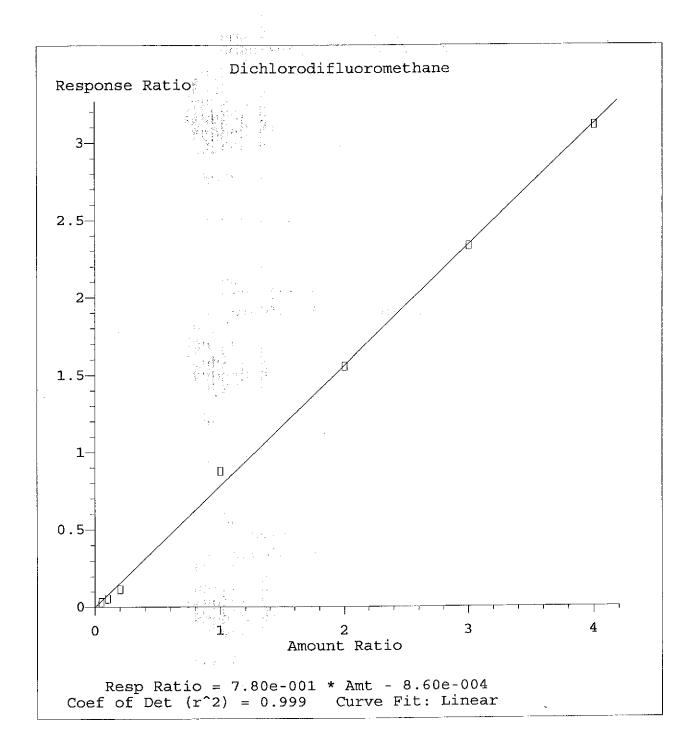
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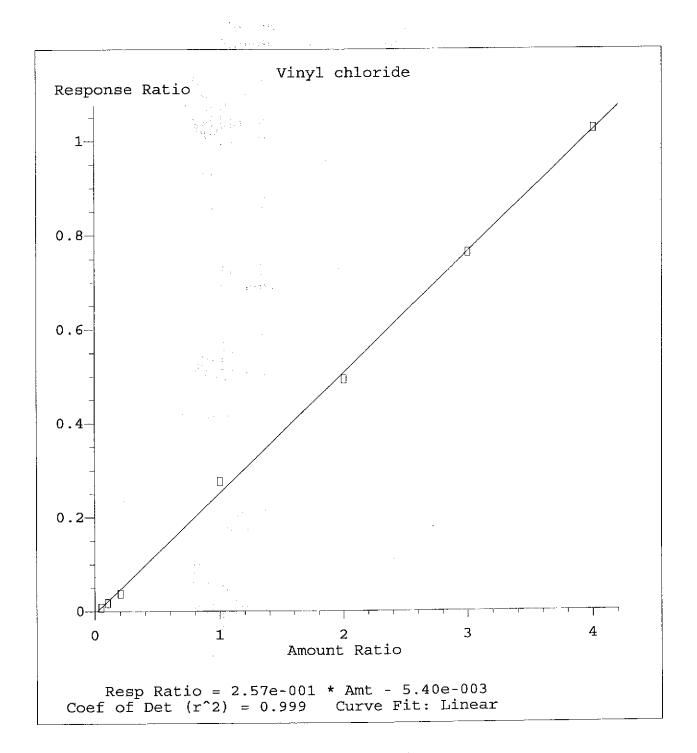
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                    Compound
                                                                                                                                                                               %RSD
                                                                        40
                                                                                                                                                              Avq
                    Fluorobenzene
                                                                        -----ISTD------
   1)
        I
                    Dichlorodifluorometer Quality of the section of the
   2)
   3) P
                    Chloromethane 0.265
         CP Vinyl chloride 0.256
   4)
                    Bromomethane 0.269
   5)
                    Chloroethane prince 0.164
   6)
   7)
                    Trichlorofluorometh 0.718
                    8)
   9)
                    Acrolein
                                                                   0.006
 10) CPM 1,1-Dichloroethene 0.243/
 11)
                   Methyl iodide
                                                                   0.647
                    1,1,2-Trichloro-1,2 0.653
 12)
                   Methyl acetate
 13)
                                                                  0.078
                   Acrylonitrile
14)
                                                                   0.022
                   Methylene chloride 0.272
15)
16)
                   Carbon disulfide
                                                                   0.793
17)
                   trans-1,2-Dichlorge 0,339
                   Methyl tert-Butyl e 0.381
18)
                   1,1-Dichloroethane 0.607
19) P
                   Vinyl acetate.
20)
                                                                   0.230
                                              . Š. (Norski)
21)
                   2-Butanone
                                                                   0.046
22)
                   cis-1,2-Dichloroeth 0.340
                   Bromochloromethane 0.195
23)
24) CP
                   Chloroform
                                                                   0.717
                   2,2-Dichloropropane 0.463
25)
                   Cyclohexane
26)
27) S
                   1,2-Dichloroethane- 0.220
                   1,2-Dichloroethane 0.286
28)
29)
                   1,1,1-Trichloroetha 0.593
30)
                   1,1-Dichloropropene 0.477
                   Carbon tetrachlorid 0.606
31)
32) M
                   Benzene . 336. 0.866
                   Trichloroethene 3 6 0.444
33) M
                  Dibromomethane Methylcyclohexane
34)
                                                                 0.301
35)
                                                                   0.382
36) CP
                  1,2-Dichloropropane 0.323
                   Bromodichloromethan 0.732
37)
                   2-Chloroethylvinyl 0.080
38)
                   4-Methyl-2-pentanon 0.116
39)
                   cis-1,3-Dichloropro 0.478
40)
41) S
                  Toluene-d8
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42) CPM Toluene
                                                                  0.560
43)
                   trans-1,3-Dichlorop 0.325
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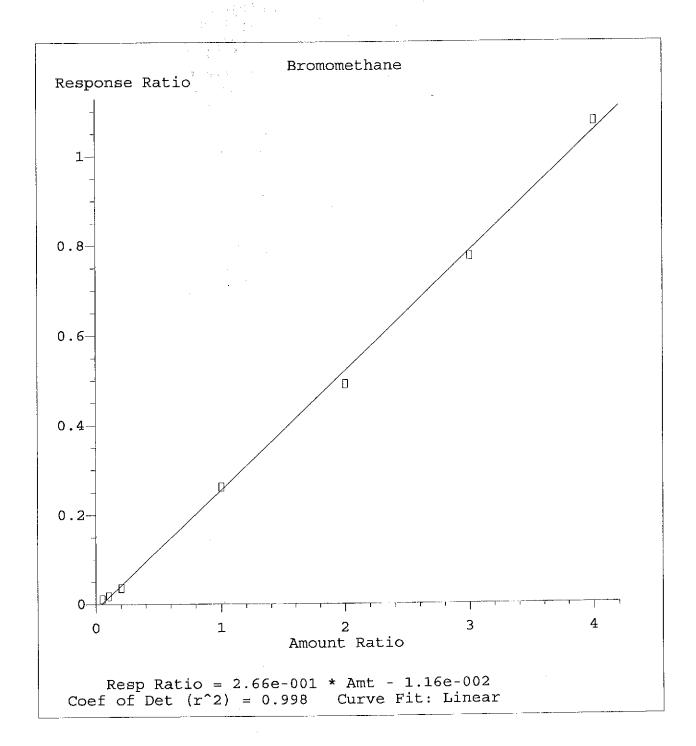
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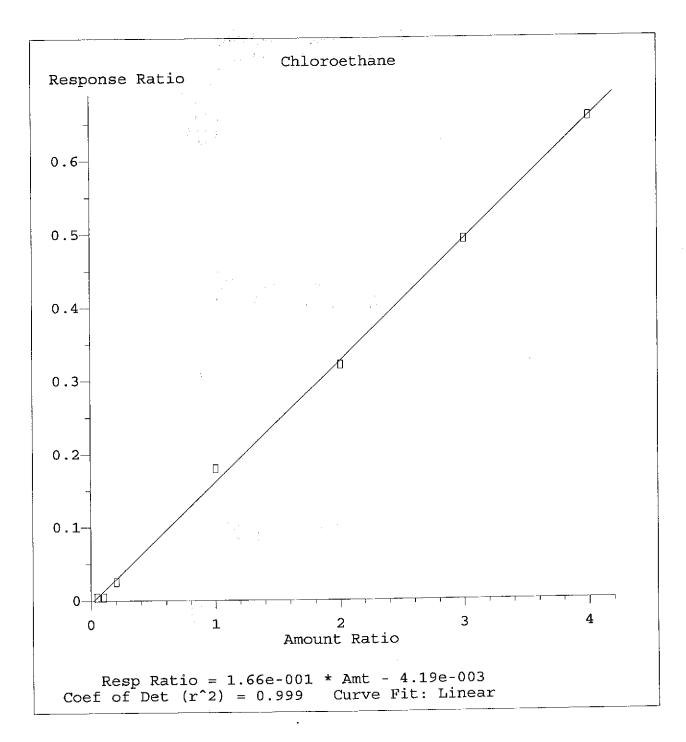
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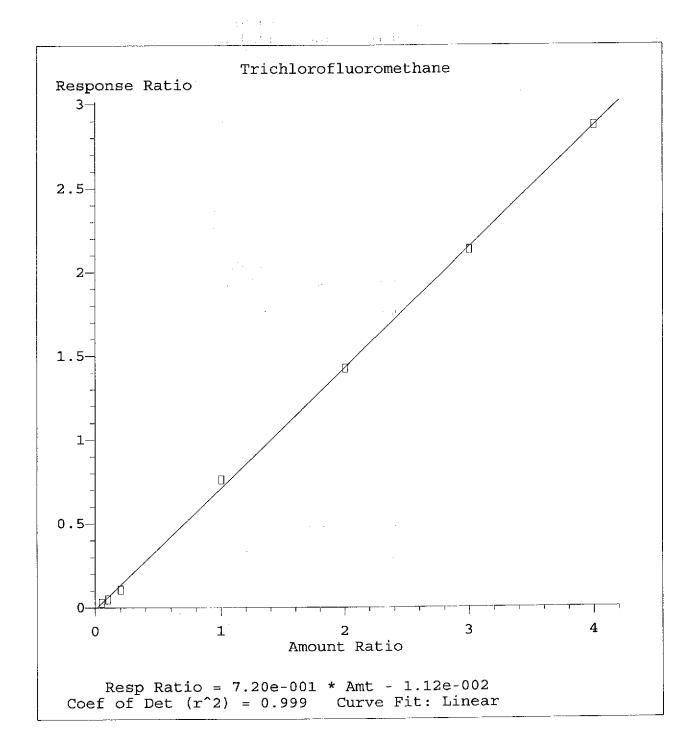
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  Title
  Last Update : Mon Mar 31 11:55:32 2008
  Response via: Initial Calibration
  Calibration Files Property of
  40
         =M4669.D
       Compound 40
                                                                  %RSD
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       1,1,2-Trichloroetha 0.209
44)
       2-Hexanone 0.085
45)
                          -----ISTD-----
46) I
       Chlorobenzene-d5
       1,2-Dibromoethane 0.728
47)
       1,3-Dichloropropane 0.689
48)
       Dibromochloromethan 1.099
49)
       Tetrachloroethene 0.992
50)
51)
       1-Chlorohexane
                         0.732
       1,1,1,2-Tetrachloro 0.754
52)
53) PM Chlorobenzene 1.295/
       Ethylbenzene
                        1.741
54) CP
                        0.699
       (m+p)-Xylene
55)
       o-Xylene
56)
                        0.721
       Styrene
57)
       Bromoform
58) P
                     0.639
       Bromofluorobenzene 1.233
59) S
       1,4-Dichlorobenzene-d ------ISTD------
60) I
       trans-1,4-Dichloro- 0.085
61)
       1,1,2,2-Tetrachloro 0.943
62) P
       Isopropylbenzene 2.787
63)
       1,2,3-Trichloroprop 0.623
64)
       Bromobenzene 1.042
65)
       n-Propylbenzene 3.293
2-Chlorotoluene 2.385
66)
67)
                         2.546
       4-Chlorotoluene
68)
       1,3,5-Trimethylbenz 1.901
69)
       tert-Butylbenzene 2.064
70)
       1,2,4-Trimethylbenz 1.711
71)
72)
       sec-Butylbenzene
                         2.862
       1,3-Dichlorobenzene 1.656
73)
74)
       p-Isopropyltoluene 2.063
75)
       1,4-Dichlorobenzene 1.520
       n-Butylbenzene 1,743
76)
77)
       1,2-Dichlorobenzene 1.486
       1,2-Dibromo-3-chlor 0.173
78)
       1,2,4-Trichlorobenz 0.689
79)
       Hexachlorobutadiene 0.716
80)
       Naphthalene 0.456
81)
       1,2,3-Trichlorobenz 0.502
82)
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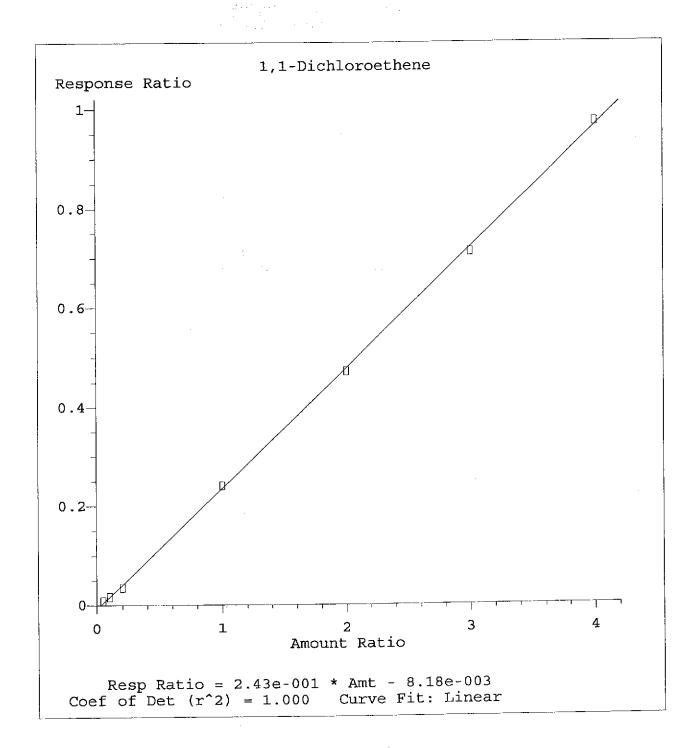


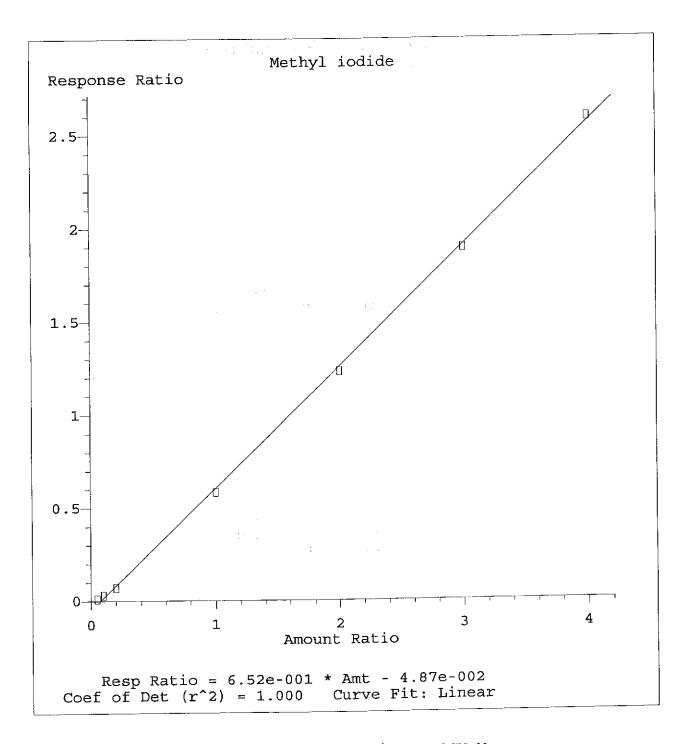


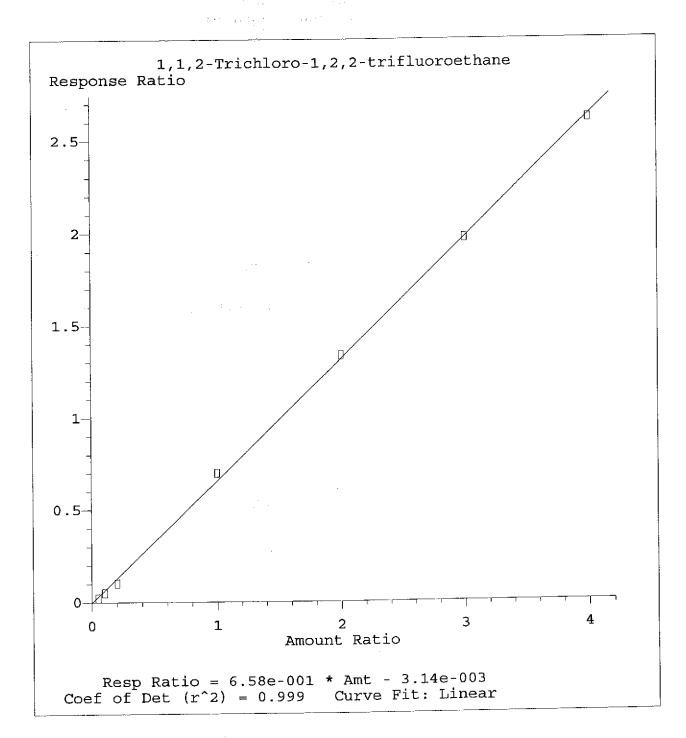


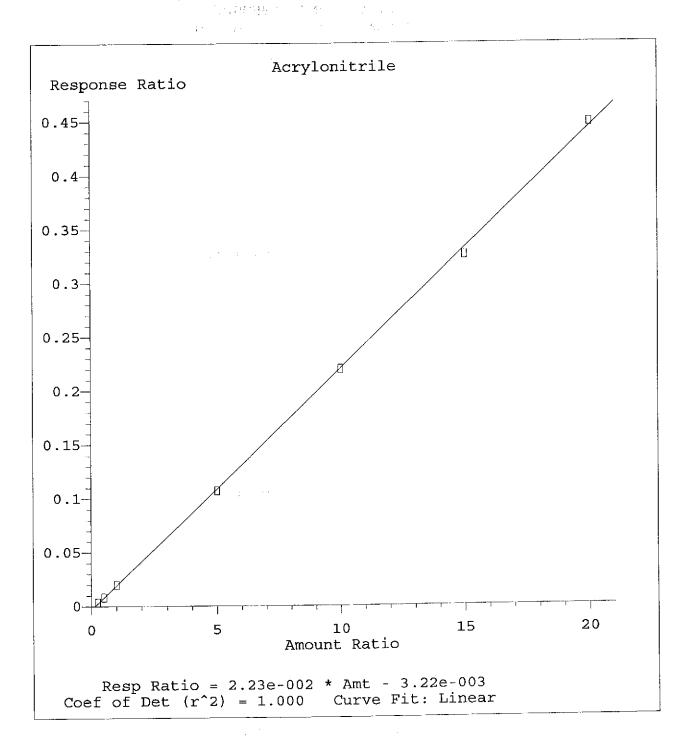


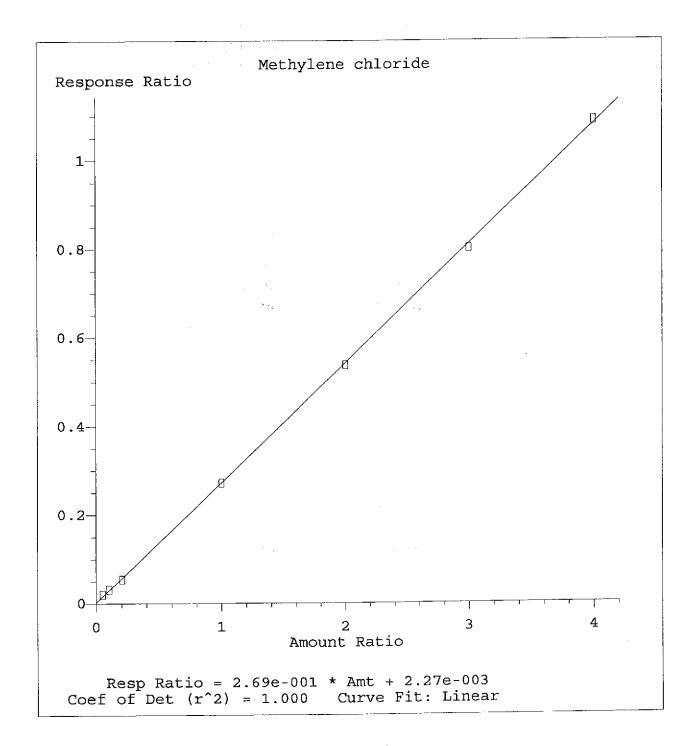


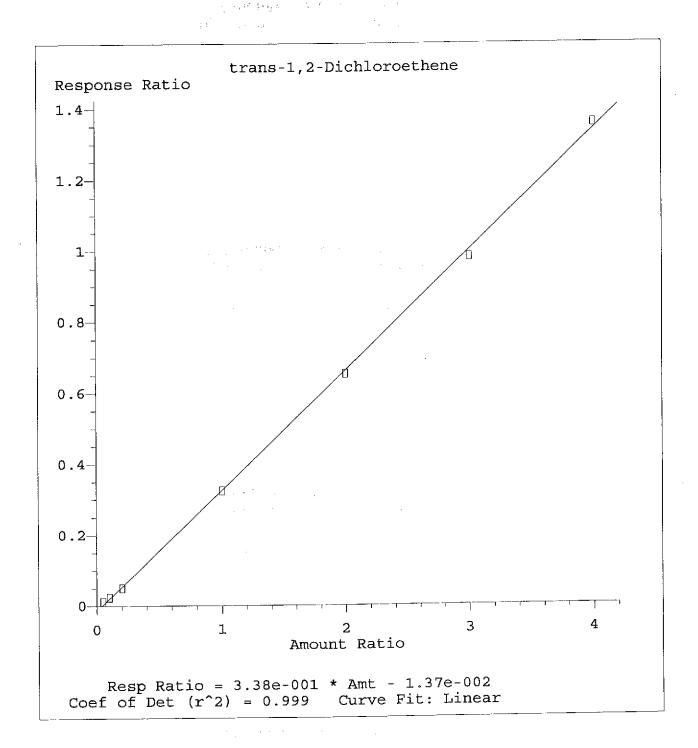


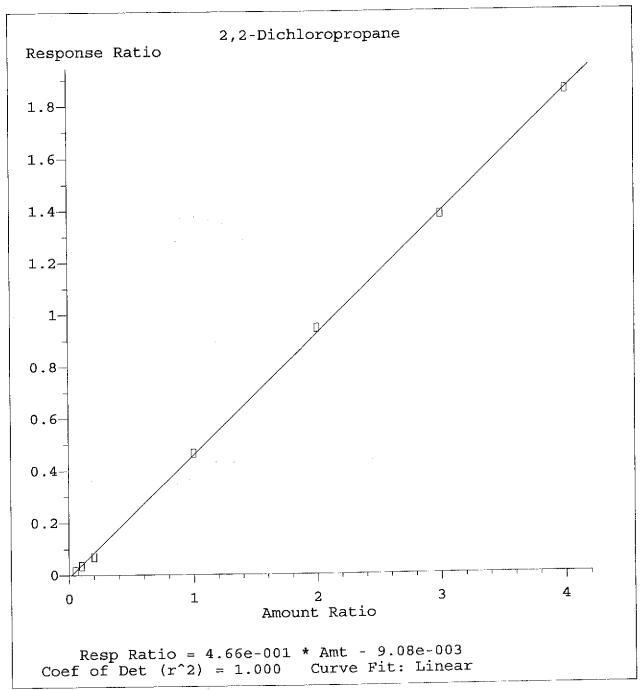


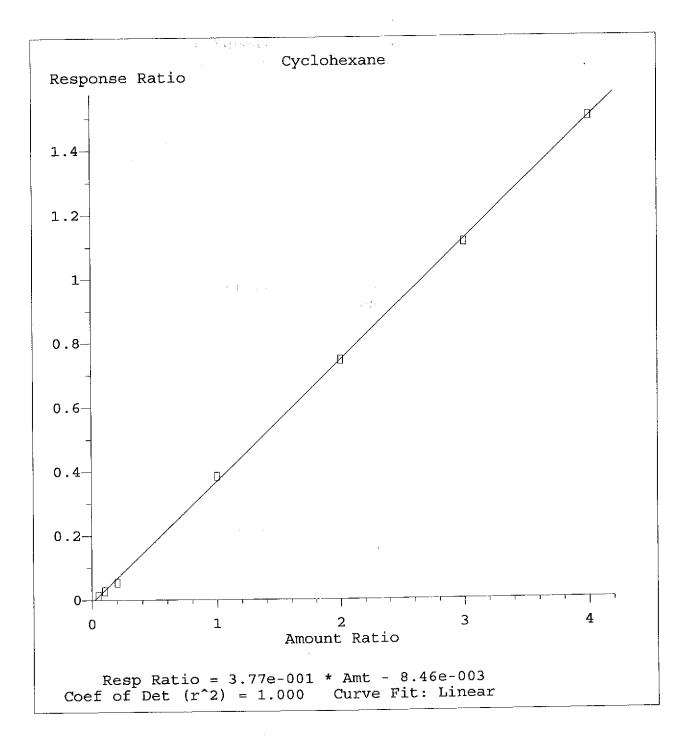




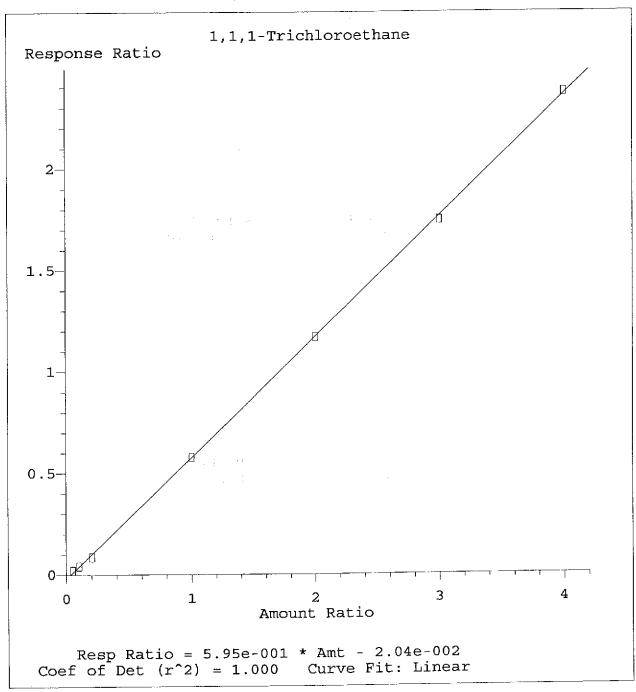


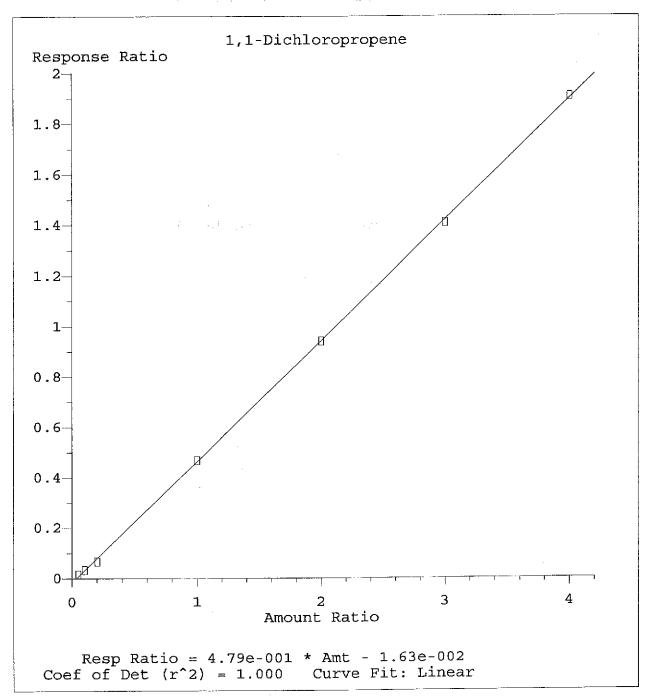


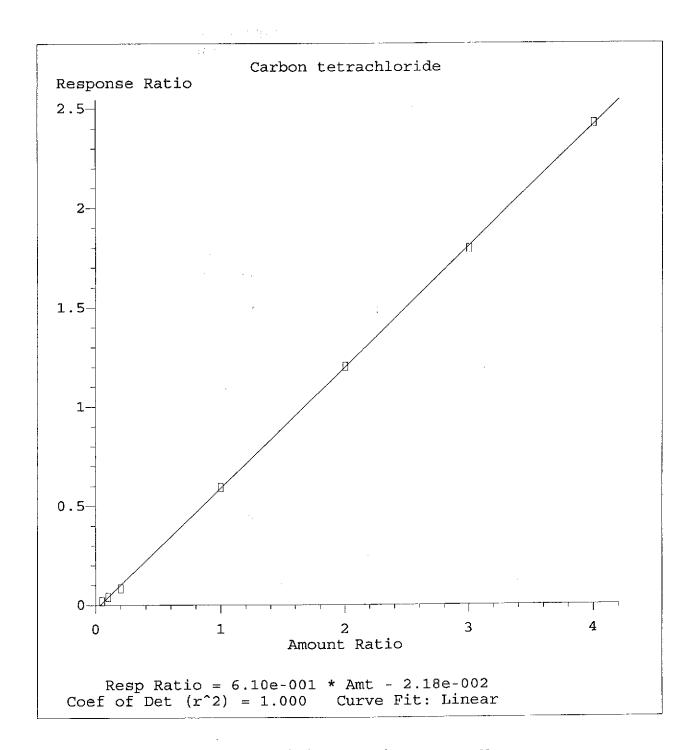


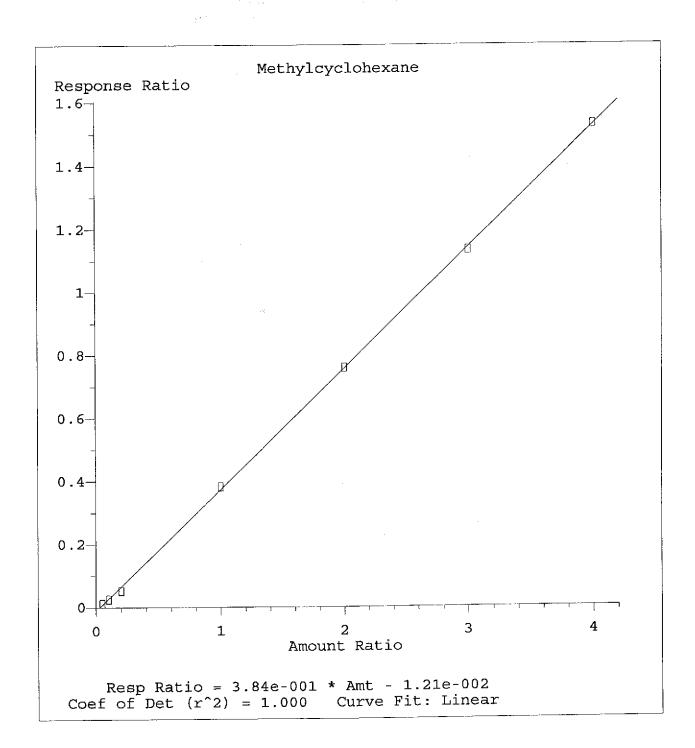


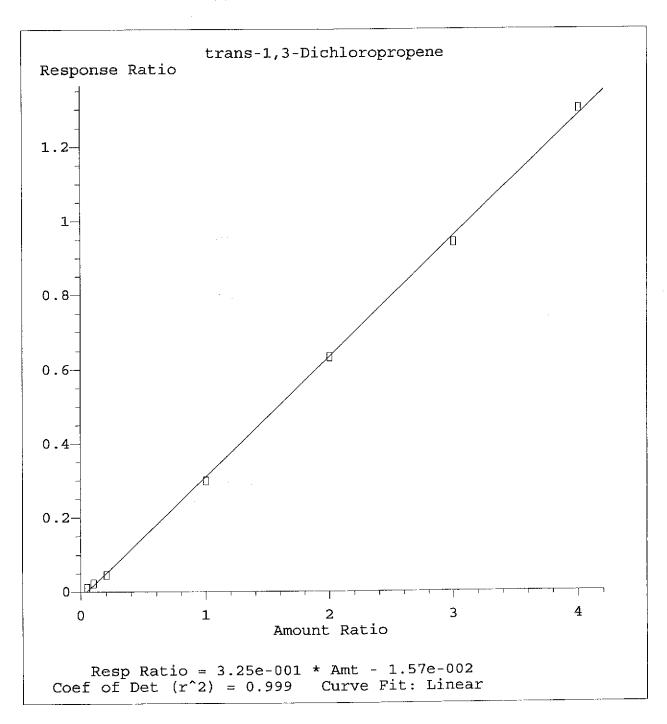


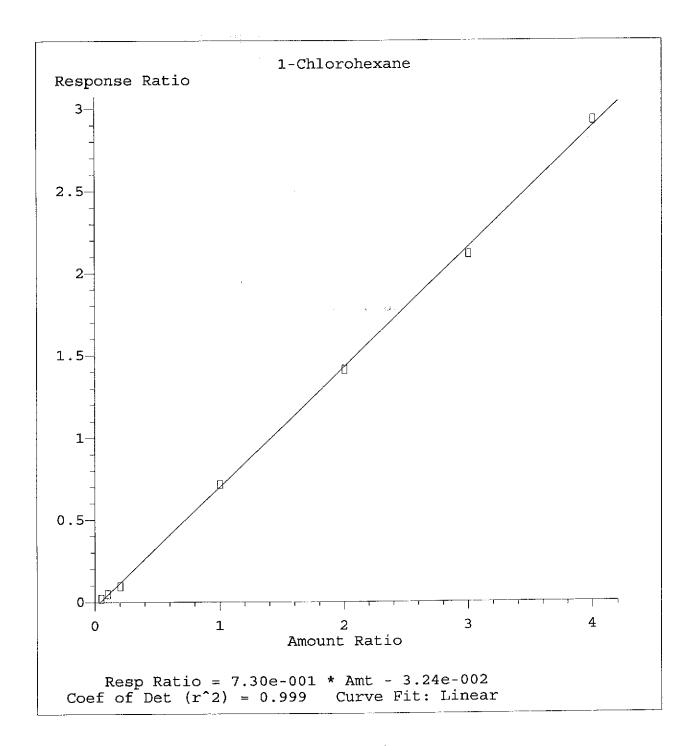


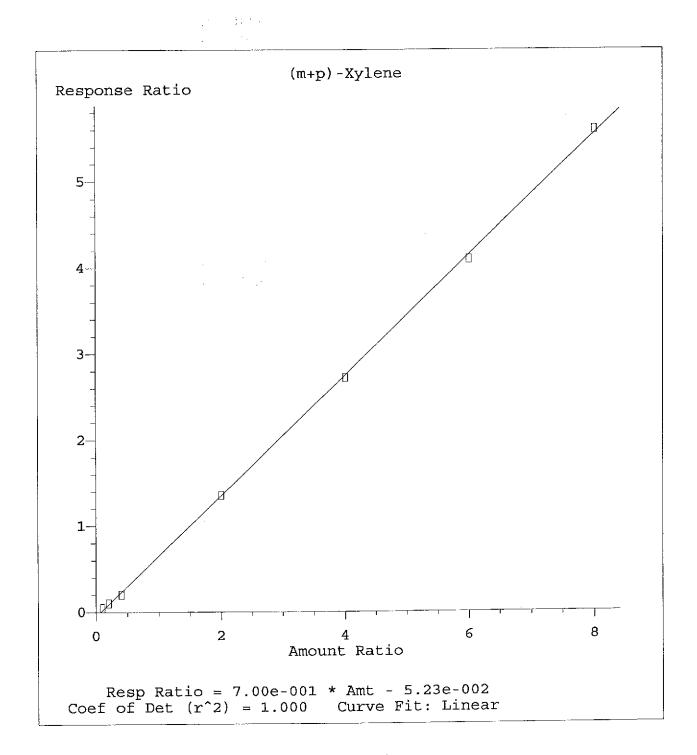


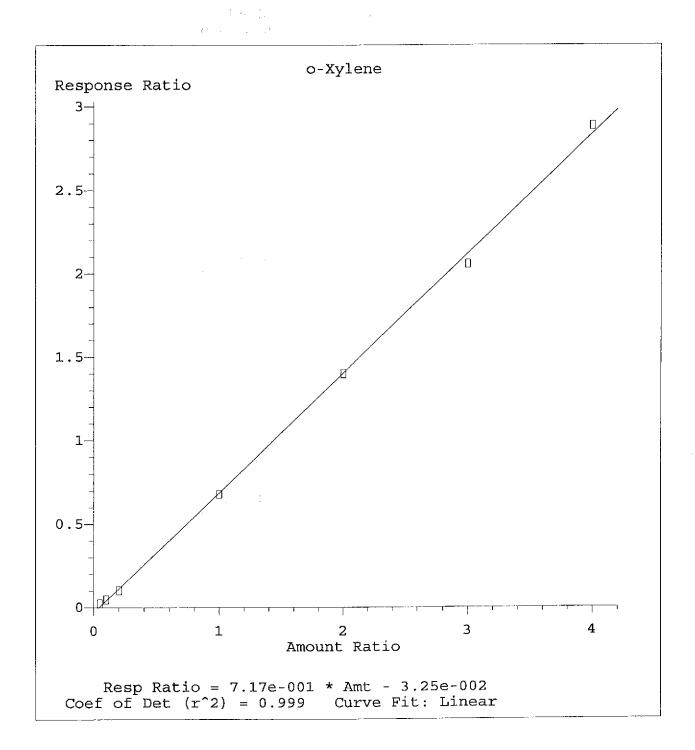


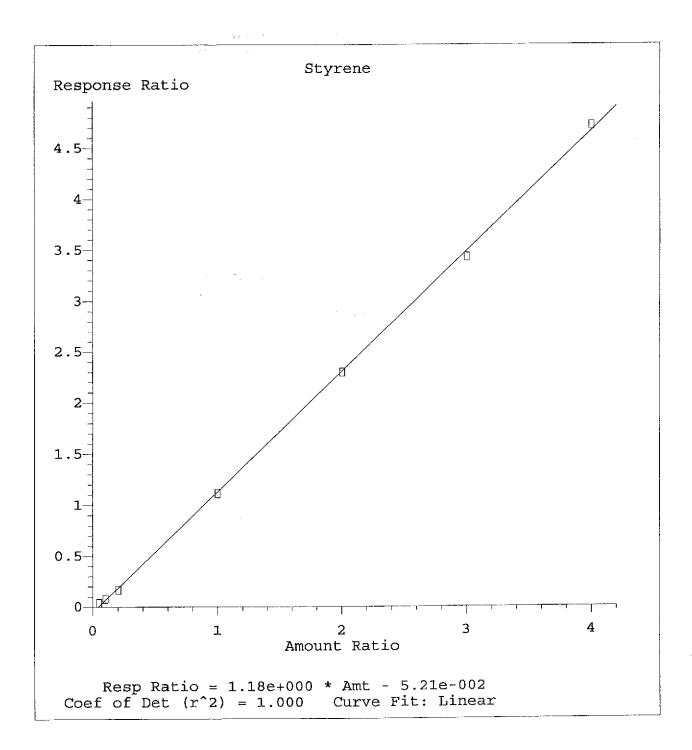


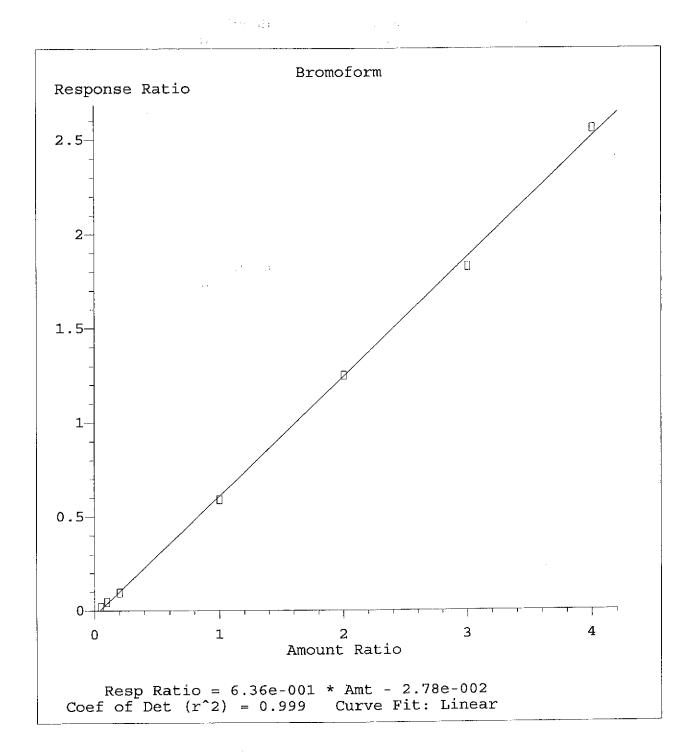


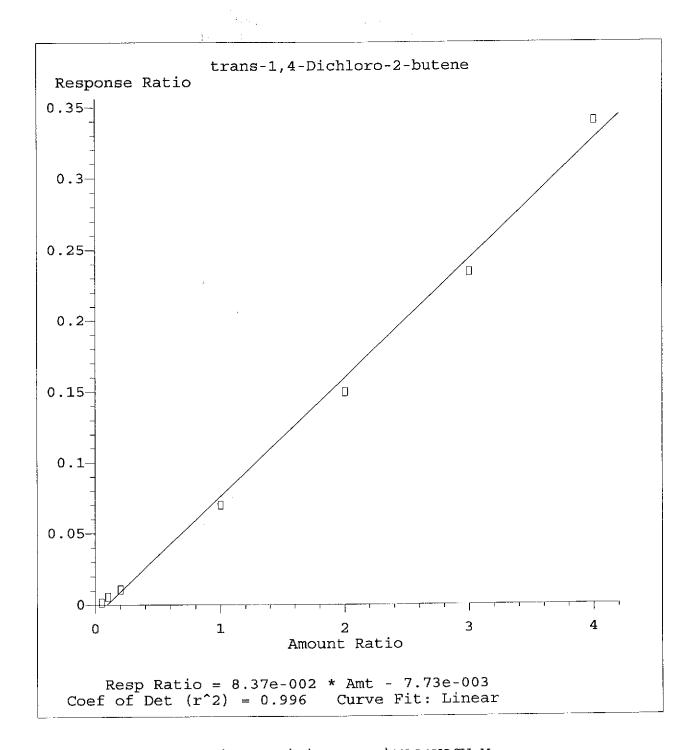


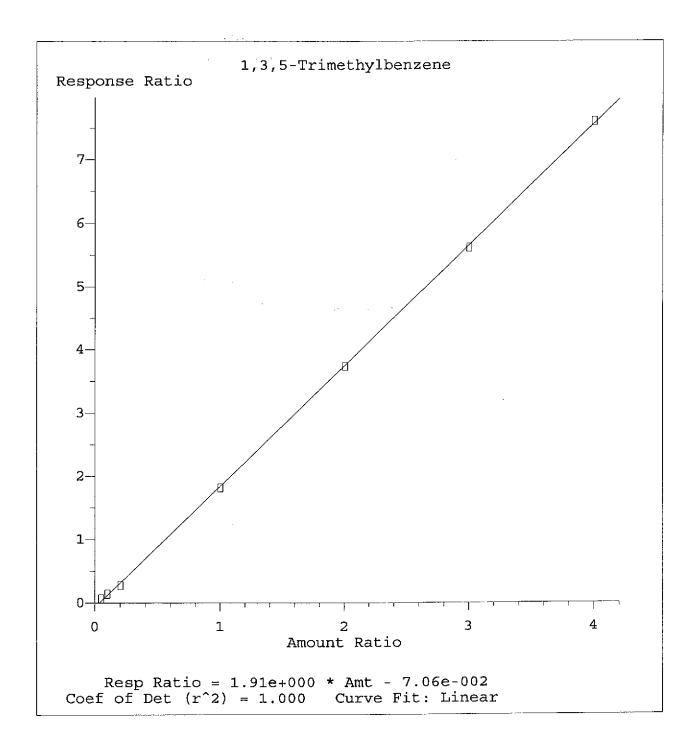


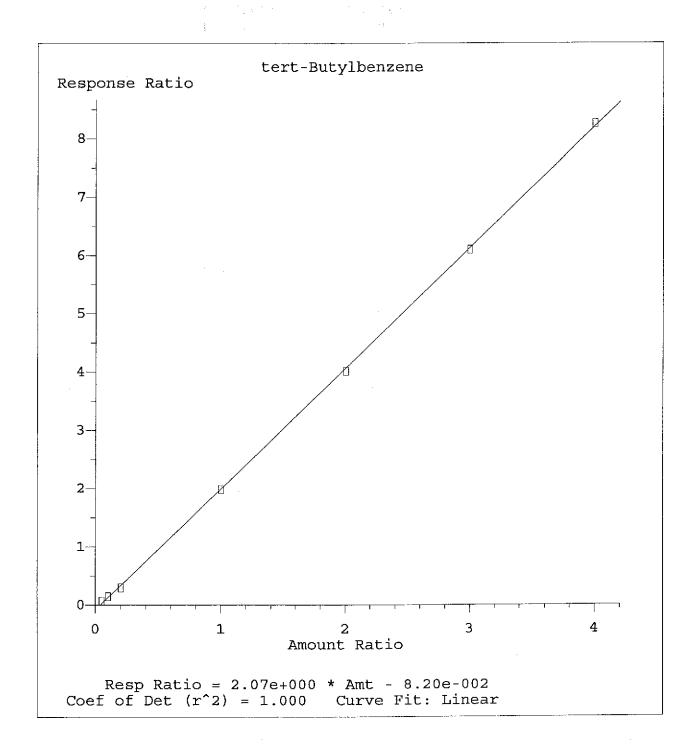


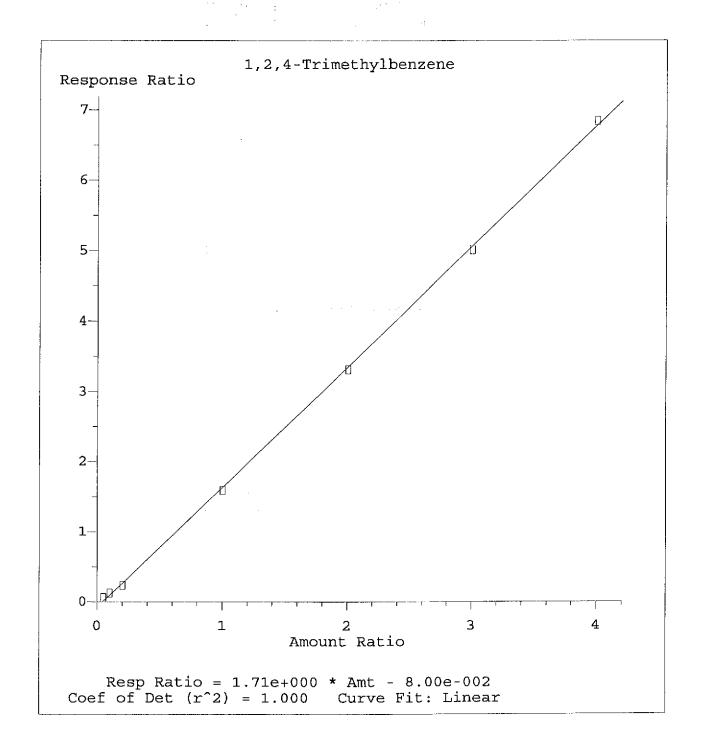


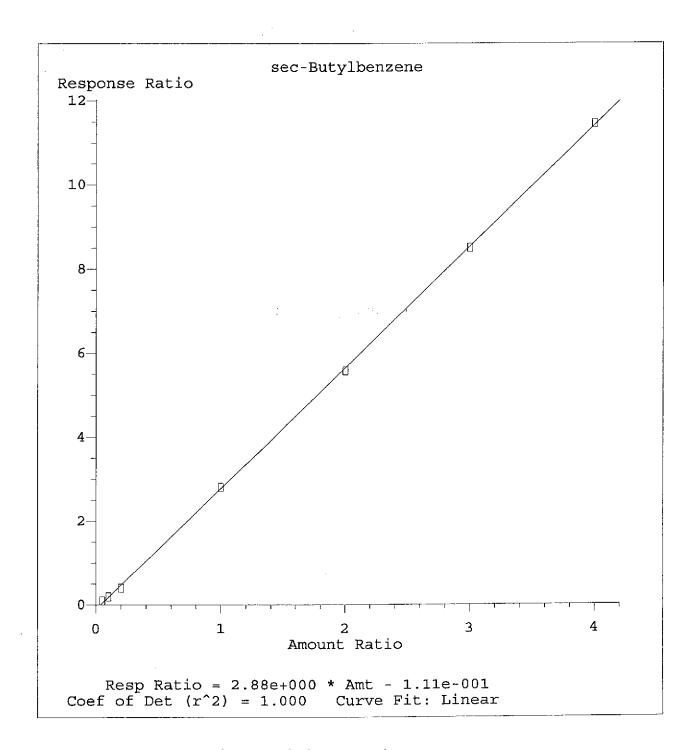


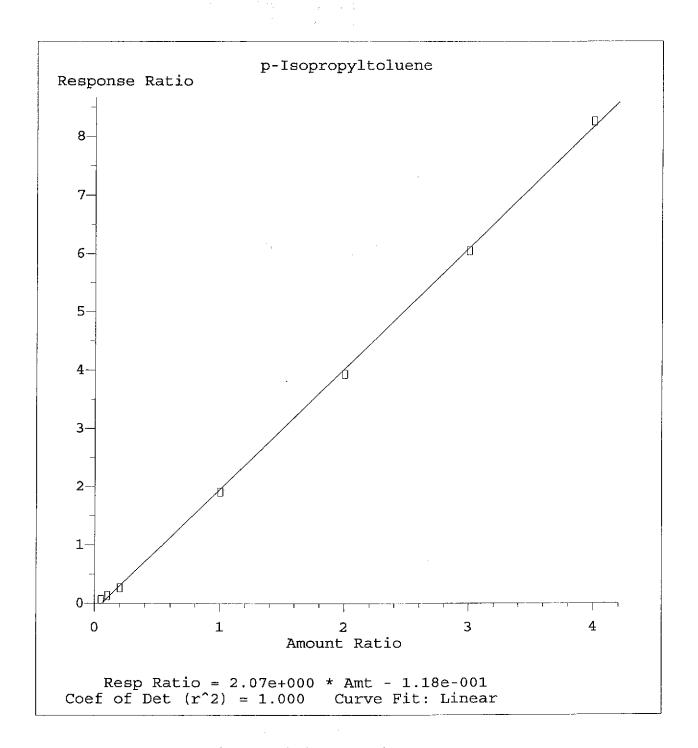


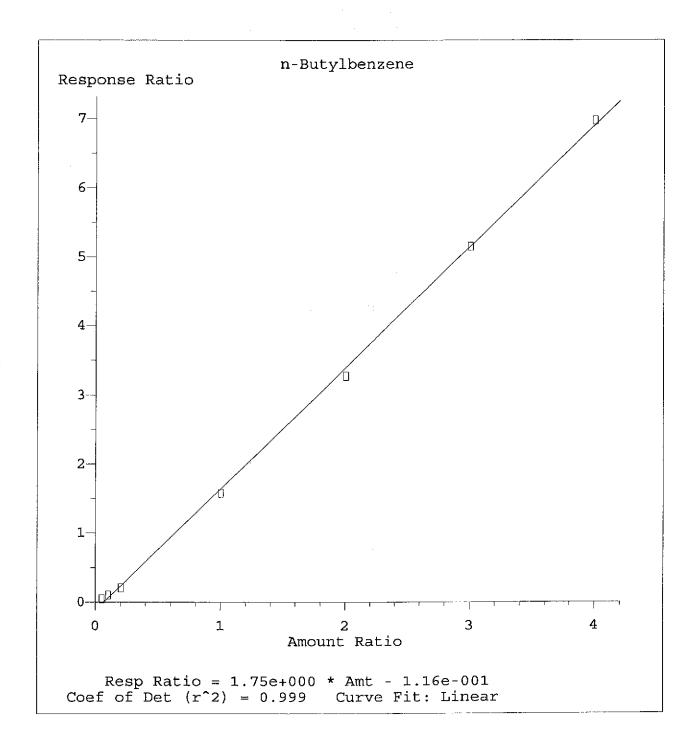


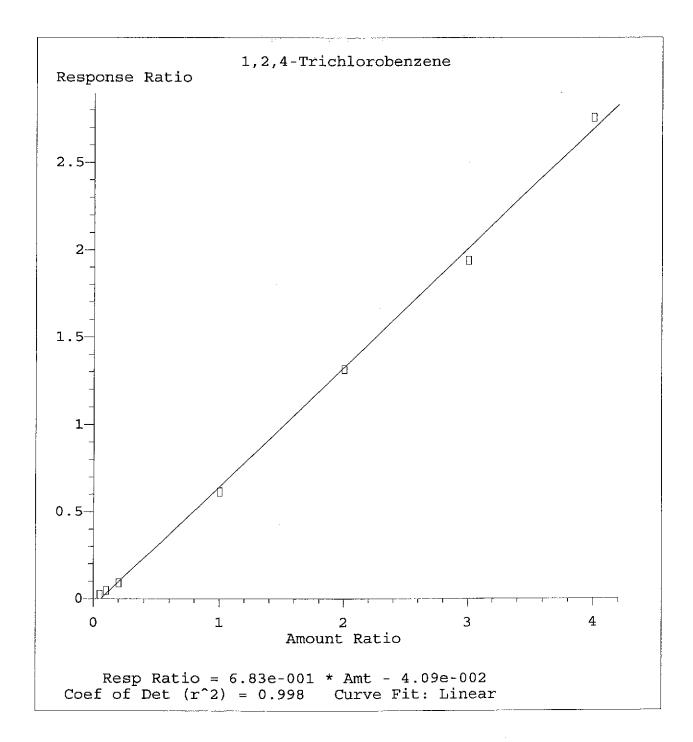


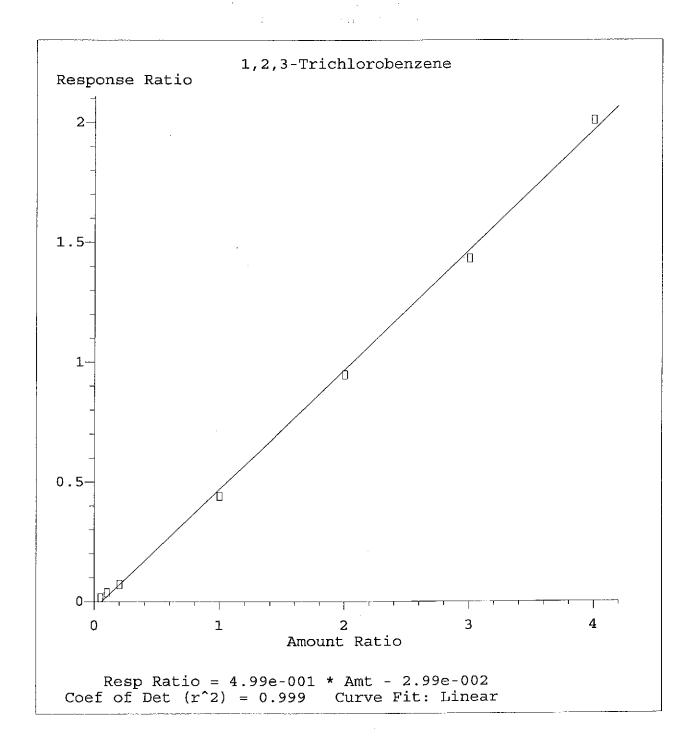












AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method:

SW8260B

AAB #:

R13052

Lab Name:

Life Science Laboratories, In

Contract Number:

Instrument ID:

MS02_12

Initial Calibration ID:

1212

Second Source ID:

ICV-13052

Concentration Units (mg/L or mg/kg):

μg/L

Analyte	Expected	Found	%D Q
(m+p)-Xylene	20	21.1	-5.5
1,1,1,2-Tetrachloroethane	10	11.2	-12.1
1,1,1-Trichloroethane	10	10.8	-8.0
1,1,2,2-Tetrachloroethane	10	10.5	-4.7
1,1,2-Trichloroethane	10	11.4	-14.5
1,1-Dichloroethane	10	11.6	-15.5
1,1-Dichloroethene	10	12	-20.4
1,1-Dichloropropene	10	10.7	-6.6
1,2,3-Trichlorobenzene	10	9.87	1.3
1,2,3-Trichloropropane	10	11.6	-16.1
1,2,4-Trichlorobenzene	10	11	-10.1
1,2,4-Trimethylbenzene	10	10.1	-1.3
1,2-Dibromo-3-chloropropane	10	11.8	-18.1
1,2-Dibromoethane	10	11.4	-13.8
1,2-Dichlorobenzene	10	10.9	-9.2
1,2-Dichloroethane	10	10.8	-7.8
1,2-Dichloroethane-d4	10	10.8	-8.1
1,2-Dichloropropane	10	11.2	-11.8
1,3,5-Trimethylbenzene	10	10.4	-3.5
1,3-Dichlorobenzene	10	11.3	-13.4
1,3-Dichloropropane	10	10.9	-9.4
1,4-Dichlorobenzene	10	10.8	-8.2
1-Chlorohexane	10	10.3	-3.3
2,2-Dichloropropane	10	9.92	0.8
2-Butanone	20	21.5	-7.7
2-Chlorotoluene	10	11.2	-12.5
4-Bromofluorobenzene	10	11.3	-13.0
4-Chlorotoluene	10	11.1	-11.1
4-Methyl-2-pentanone	20	19.3	3.4
Acetone	20	18.1	9.7
Benzene	10	11.4	-14.0
Bromobenzene	10	10.8	-8.4
Bromochloromethane	10	11.2	-11.6
Bromodichloromethane	10	11.5	-15.3
Bromoform	10	10.1	-1.0

<u> </u>					
LO	m	m	е	nts:	

AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method:

SW8260B

AAB#:

R13052

Lab Name:

Instrument ID:

Life Science Laboratories, In

Contract Number:

MS02 12

Initial Calibration ID:

<u>1212</u>

Second Source ID:

ICV-13052

Concentration Units (mg/L or mg/kg):

<u>µg/L</u>

Analyte	Expected	Found	%D	Q
Bromomethane	10	10.1	-0.7	
Carbon tetrachloride	10	10.5	-4.8	
Chlorobenzene	10	11.2	-11.8	
Chloroethane	10	11.1	-10.8	
Chloroform	10	11.4	-14.5	
Chloromethane	10	11.7	-17.0	
cis-1,2-Dichloroethene	10	11.9	-19.3	
cis-1,3-Dichloropropene	10	11.2	-11.9	
Dibromochloromethane	10	11.3	-13.2	
Dibromomethane	10	11.1	-11.3	
Dichlorodifluoromethane	10	10.6	-5.9	
Ethylbenzene	10	11.8	-18.5	_
Hexachlorobutadiene	10	12	-20.1	
Isopropyibenzene	10	11	-10.1	
Methyl tert-butyl ether	10	11.2	-11.7	
Methylene chloride	10	10.7	-6.9	
n-Butylbenzene	10	9.99	0.1	
n-Propylbenzene	10	11.6	-16.1	
Naphthalene	10	11.2	-11.5	
o-Xylene	10	10.6	-6.4	
p-Isopropyltoluene	10	10	-0.2	
sec-Butylbenzene	10	10.4	-3.5	
Styrene	10	9.71	2.9	
tert-Butylbenzene	10	10.3	-2.9	
Tetrachloroethene	10	11.6	-15.7	
Toluene	10	11.3	-13.2	
Toluene-d8	10	11.1	-11.3	
trans-1,2-Dichloroethene	10	10.7	-7.2	
trans-1,3-Dichloropropene	10	10	0	
Trichloroethene	10	11.8	-17.9	
Trichlorofluoromethane	10	10.7	-6.9	
Vinyl chloride	10	10.7	-6.8	
Xylenes (total)	30	31.7	-5.8	

Comments:				
	 	 	 	

AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method: SW8260B AAB #: R13065

Lab Name: <u>Life Science Laboratories, In</u> Contract Number:

Instrument ID: MS01_11 Initial Calibration ID: 1204

Second Source ID: ICV-13065 Concentration Units (mg/L or mg/kg): ug/L

Analyte	Expected	Found	%D	Q
(m+p)-Xylene	20	23.6	-17.8	
1,1,1,2-Tetrachloroethane	10	10.3	-2.6	
1,1,1-Trichloroethane	10	10.8	-7.7	
1,1,2,2-Tetrachloroethane	10	11.1	-10.9	
1,1,2-Trichloroethane	10	11.5	-14.6	
1,1-Dichloroethane	10	11.2	-12.3	
1,1-Dichloroethene	10	12	-19.9	
1,1-Dichloropropene	10	10.8	-7.6	
1,2,3-Trichlorobenzene	10	9.55	4.5	
1,2,3-Trichloropropane	10	11	-9 .5	
1,2,4-Trichlorobenzene	10	10.4	-4.1	
1,2,4-Trimethylbenzene	10	10.4	-4.1	
1,2-Dibromo-3-chloropropane	10	10	-0.5	
1,2-Dibromoethane	10	11.6	-15.7	
1,2-Dichlorobenzene	10	11.2	-11.7	
1,2-Dichloroethane	10	11.1	-11.2	
1,2-Dichloroethane-d4	10	10.3	-2.8	
1,2-Dichloropropane	10	11.1	-11.4	
1,3,5-Trimethylbenzene	10	11.6	-15.8	
1,3-Dichlorobenzene	10	11.4	-13.5	
1,3-Dichloropropane	10	10.8	-8.0	
1,4-Dichlorobenzene	10	11	-10.4	
1-Chlorohexane	10	10.4	-4.0	
2,2-Dichloropropane	10	11.6	-15.5	
2-Butanone	20	20.2	-1.1	
2-Chlorotoluene	10	11	-9.7	
4-Bromofluorobenzene	10	9.81	1.9	
4-Chlorotoluene	10	11.2	-12.5	
4-Methyl-2-pentanone	20	22	-9.9	
Acetone	20	17.4	12.8	
Benzene	10	11.4	-14.0	
Bromobenzene	10	10.9	-8.9	
Bromochloromethane	10	11.3	-13.0	
Bromodichloromethane	10	10.7	-7.2	
Bromoform	10	10	-0.3	

 		 	-
 	 -	 	

QAPP 4.0 AFCEE FORM O-4 Page 3 of 4

Comments:

AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method:

SW8260B

AAB #:

R13065

Lab Name:

Life Science Laboratories, In

Contract Number:

Instrument ID:

MS01_11

Initial Calibration ID:

1204

Second Source ID:

ICV-13065

Concentration Units (mg/L or mg/kg):

μg/L

Analyte	Expected	Found	%D Q
Bromomethane	10	11.8	-18.2
Carbon tetrachloride	10	10.6	-6.3
Chlorobenzene	10	11	-9.5
Chloroethane	10	11.2	-12.5
Chloroform	10	11.1	-11.0
Chloromethane	10	11.1	-11.1
cis-1,2-Dichloroethene	10	11.6	-15.6
cis-1,3-Dichloropropene	10	10.3	-3.4
Dibromochloromethane	10	10.3	-3.1
Dibromomethane	10	11.6	-15.8
Dichlorodifluoromethane	10	11.3	-13.3
Ethylbenzene	10	11.3	-13.1
Hexachlorobutadiene	10	10.7	-7.2
Isopropylbenzene	10	10.9	-9.4
Methyl tert-butyl ether	10	11.8	-18.2
Methylene chloride	10	10.2	-2.0
n-Butylbeпzene	10	10.3	-3.4
n-Propylbenzene	10	11.7	-16.7
Naphthalene	10	10.7	-7.1
o-Xylene	10	11.8	-17.7
p-Isopropyltoluene	10	10.7	-6.7
sec-Butylbenzene	10	10.9	-8.8
Styrene	10	9.8	2.0
tert-Butylbenzene	10	10.9	-8.6
Tetrachloroethene	10	10.3	-3.4
Toluene	10	11.3	-13.0
Toluene-d8	10	10.1	-0.7
trans-1,2-Dichloroethene	10	11.7	-16.9
trans-1,3-Dichloropropene	10	10.5	-4.8
Trichloroethene	10	11.4	-14.1
Trichlorofluoromethane	10	10.6	-6.3
Vinyl chloride	10	11.4	-14.5
Xylenes (total)	30	35.3	-17.8

Comments:			
	·	 	

AFCEE ORGANIC ANALYSES DATA SHEET 5 CALIBRATION VERIFICATION

Analytical Method: 8260 AAB #:

Lab Name: Life Science Laboratories, Inc.

Contract #:

Instrument ID: HP5973 GCMS#1 Initial Calibration -ID: 1204

ICV ID: ICV-13065 CCV #1 ID: CCV-13058

SEE ATTACHED

Comments:		
Comments:		

Data File : C:\HPCHEM\1\DATA\T1961.D Acq On : 24 Mar 2008 11:18

Operator: MT Inst : #1MS11 Multiplr: 1.00

Vial: 19

Sample : CCV-13058
Misc : CCV ,8260WAF_40CAL, MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Mar 25 17:20:35 2008

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev Area% Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0 98 0.00
2	Dichlorodifluoromethane	0.299	0.372	-24.4# 104 0.00
3 P	Chloromethane	0.389	0.375	3.6 86 0.00
4 CP	Vinyl chloride	0.324	0.338	-4.3 90 0.00
5	Bromomethane	0.140	0.159	-13.6 107 0.00
6	Chloroethane	0.179	0.186	-3.9 92 0.00
7	Trichlorofluoromethane	0.387	0.495	-27.9# 109 0.00
8	Acetone	0.052	0.056	-7.7 108 0.00
9 CP	M 1,1-Dichloroethene	0.180	0.184	-2.2 86 0.00
10	Methylene chloride	0.255	0.242	5.1 89 0.00
11	trans-1,2-Dichloroethene	0.225	0.228	-1.3 85 0.00
12	Methyl tert-Butyl ether	0.527	0.606	-15.0 97 0.00
13 P	1,1-Dichloroethane	0.457	0.445	2.6 85 0.00
14	2-Butanone	0.066	0.072	-9.1 102 0.00
- !	cis-1,2-Dichloroethene	0.254	0.252	0.8 87 0.00
Q	Bromochloromethane	0.102	0.109	-6.9 92 0.00
17 CP	Chloroform	0.429	0.448	-4.4 93 0.00
18	2,2-Dichloropropane	0.385	0.429	-11.4 95 0.00
19 S	1,2-Dichloroethane-d4	0.245	0.269	-9.8 96 0.00
20	1,2-Dichloroethane	0.293	0.322	-9.9 97 0.00
21	1,1,1-Trichloroethane	0.372	0.421	-13.2 95 0.00
22	1,1-Dichloropropene	0.342	0.352	-2.9 86 0.00
23	Carbon tetrachloride	0.263	0.331	-25.9# 106 0.00
24 M	Benzene	1.093	1.059	3.1 84 0.00
25 M	Trichloroethene	0.259	0.268	-3.5 89 0.00
26	Dibromomethane	0.111	0.120	-8.1 95 0.00
27 CP	1,2-Dichloropropane	0.256	0.238	7.0 81 0.00
28	Bromodichloromethane	0.275	0.310	-12.7 99 0.00
29	4-Methyl-2-pentanone	0.138	0.156	-13.0 104 0.00
30	cis-1,3-Dichloropropene	0.369	0.384	-4.1 91 0.00
31 S	Toluene-d8	0.943	0.971	-3.0 88 0.00
32 CP		0.728	0.730	-0.3 87 0.00
33	trans-1,3-Dichloropropene	0.297	0.326	-9.8 95 0.00
34	1,1,2-Trichloroethane	0.141	0.147	-4.3 91 0.00
35 I	Chlorobenzene-d5	1.000	1.000	0.0 101 0.00
36	1,2-Dibromoethane	0.355	0.375	-5.6 98 0.00
37	1,3-Dichloropropane	0.747	0.746	0.1 92 0.00
38	Dibromochloromethane	0.385	0.458	-19.0 108 0.00
² 9	Tetrachloroethene	0.630	0.678	-7.6 94 0.00
J	1-Chlorohexane	0.869	0.865	0.5 88 0.00
				- a

MT 3-25-03

Data File : C:\HPCHEM\1\DATA\T1961.D

Vial: 19 Operator: MT

Acq On : 24 Mar 2008 11:18 Sample : CCV-13058 Misc : CCV ,8260WAF_40CAL, Inst : #1MS11 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Mar 25 17:20:35 2008

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev Area% Dev(min)
41	1,1,1,2-Tetrachloroethane Chlorobenzene Ethylbenzene (m+p)-Xylene o-Xylene Styrene	0.456	0.511	-12.1 101 0.00
42 PM		1.708	1.724	-0.9 92 0.00
43 CP		3.255	3.252	0.1 89 0.00
44		1.209	1.214	-0.4 89 0.00
45		1.175	1.192	-1.4 90 0.00
46		1.908	1.936	-1.5 89 0.00
47 P	Bromoform	0.210	0.268	-27.6# 118 0.00
48 S	Bromofluorobenzene	0.875		-2.3 95 0.00
49 IP 551555555555566666678	1,4-Dichlorobenzene-d4 1,1,2,2-Tetrachloroethane Isopropylbenzene 1,2,3-Trichloropropane Bromobenzene n-Propylbenzene 2-Chlorotoluene 4-Chlorotoluene 1,3,5-Trimethylbenzene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Trichlorobenzene Hexachlorobutadiene	1.000 0.558 3.950 0.558 4.683 3.125 2.764 3.262 2.849 2.977 4.197 1.694 3.396 1.644 2.678 1.539 0.862 0.660	1.000 0.531 3.791 0.495 0.830 4.486 2.944 2.640 3.158 2.819 2.788 4.151 1.675 3.308 1.614 2.460 1.503 0.094 0.853 0.741	0.0 109 0.00 4.8 96 0.00 4.0 91 0.00 1.2 99 0.00 3.3 96 0.00 4.2 90 0.00 5.8 91 0.00 4.5 93 0.00 3.2 92 0.00 1.1 93 0.00 6.3 89 0.00 1.1 91 0.00 1.1 97 0.00 2.6 90 0.00 1.8 97 0.00 2.6 90 0.00 1.8 97 0.00 2.3 97 0.00 -16.0 110 0.00 -12.3 107 0.00
69	Naphthalene	1.044	1.015	2.8 99 0.00
70	1,2,3-Trichlorobenzene		0.821	-1.6 100 0.00

Data File : C:\HPCHEM\1\DATA\T1961.D Vial: 19 Acq On : 24 Mar 2008 11:18 Operator: MT

Inst : #1MS11 Sample : CCV-13058 Misc : CCV ,8260WAF_40CAL, Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator) Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df Last Update : Tue Mar 25 17:20:35 2008

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

_		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	10.000	10.000	0.0	98	0.00
2		Dichlorodifluoromethane	10.000	11.225	-12.2	104	0.00
3	P	Chloromethane	10.000	9.644	3.6	86	0.00
4	CP	Vinyl chloride	10.000	10.448	-4.5	90	0.00
5		Bromomethane	10.000	11.400	-14.0	107	0.00
6		Chloroethane	10.000	10.414	-4.1	92	0.00
7		Trichlorofluoromethane	10.000	11.588	-15.9	109	0.00
8		Acetone	20.000	21.779	-8.9	108	0.00
9	CPM	1,1-Dichloroethene	10.000	9.316	6.8	86	0.00
10		Methylene chloride	10.000	9.512	4.9	89	0.00
11		trans-1,2-Dichloroethene	10.000	10.132	-1.3	85	0.00
12		Methyl tert-Butyl ether	10.000	11.500	-15.0	97	0.00
	P	1,1-Dichloroethane	10.000	9.750	2.5	85	0.00
14		2-Butanone	20.000	21.600	-8.0	102	0.00
5		cis-1,2-Dichloroethene	10.000	9.951	0.5	87	0.00
⊥ 6		Bromochloromethane	10.000	10.757	-7.6	92	0.00
17	CP	Chloroform	10.000	10.444	-4.4	93	0.00
18		2,2-Dichloropropane	10.000	11.133	-11.3	95	0.00
19	S	1,2-Dichloroethane-d4	10.000	10.955	-9.6	96	0.00
20		1,2-Dichloroethane	10.000	10.969	-9.7	97	0.00
21		1,1,1-Trichloroethane	10.000	10.240	-2.4	95	0.00
22		1,1-Dichloropropene		9.315	6.9	86	0.00
23		Carbon tetrachloride	10.000	10.781	-7.8	106	0.00
24		Benzene	10.000	9.696	3.0	84	0.00
25	M	Trichloroethene	10.000	10.338	-3.4	89	0.00
26		Dibromomethane	10.000	10.803	-8.0	95	0.00
	CP	1,2-Dichloropropane	10.000	9.271	7.3	81	0.00
28		Bromodichloromethane	10.000	10.244	-2.4	99	0.00
29		4-Methyl-2-pentanone	20.000	22.661	-13.3	104	0.00
30		cis-1,3-Dichloropropene	10.000	9.465	5.4	91	0.00
	S	Toluene-d8	10.000	10.302	-3.0	88	0.00
	CPM	Toluene	10.000	10.027	-0.3	87	0.00
33		trans-1,3-Dichloropropene	10.000	9.849	1.5	95	0.00
34		1,1,2-Trichloroethane	10.000	10.396	-4.0	91	0.00
35	I	Chlorobenzene-d5	10.000	10.000	0.0	101	0.00
36		1,2-Dibromoethane	10.000	10.583	-5.8	98	0.00
37		1,3-Dichloropropane	10.000	9.987	0.1	92	0.00
38		Dibromochloromethane	10.000	10.349	-3.5	108	0.00
9		Tetrachloroethene	10.000	9.819	1.8	94	0.00
٠0		1-Chlorohexane	10.000	9.017	9.8	88	0.00
	- -		1 2 5			- -	-

Data File : C:\HPCHEM\1\DATA\T1961.D Vial: 19 Acq On : 24 Mar 2008 11:18 Operator: MT Inst : #1MS11 Sample : CCV-13058 Misc : CCV ,8260WAF_40CAL, Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Mar 25 17:20:35 2008

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41		1,1,1,2-Tetrachloroethane	10.000	9.938	0.6	101	0.00
42 I	ΡM	Chlorobenzene	10.000	10.097	-1.0	92	0.00
43 (CP	Ethylbenzene	10.000	9.990	0.1	89	0.00
44		(m+p)-Xylene	20.000	20.079	-0.4	89	0.00
45		o-Xylene	10.000	10.140	-1.4	90	0.00
46		Styrene	10.000	9.203	8.0	89	0.00
47 I	₽	Bromoform	10.000	10.685	-6.9	118	0.00
48 9	S	Bromofluorobenzene	10.000	9.870	1.3	95	0.00
49	Ι	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	109	0.00
50 I	₽	1,1,2,2-Tetrachloroethane	10.000	9.517	4.8	96	0.00
51		Isopropylbenzene	10.000	9.596	4.0	91	0.00
52		1,2,3-Trichloropropane	10.000	9.870	1.3	99	0.00
53		Bromobenzene	10.000	9.679	3.2	96	0.00
4		n-Propylbenzene	10.000	9.578	4.2	90	0.00
ວ5		2-Chlorotoluene	10.000	9.421	5.8	91	0.00
56		4-Chlorotoluene	10.000	9.548	4.5	93	0.00
57		1,3,5-Trimethylbenzene	10.000	9.681	3.2	92	0.00
58		tert-Butylbenzene	10.000	9.046	9.5	93	0.00
59		1,2,4-Trimethylbenzene	10.000	8.439	15.6	89	0.00
60		sec-Butylbenzene	10.000	8.940	10.6	91	0.00
61		1,3-Dichlorobenzene	10.000	9.887	1.1	97	0.00
62		p-Isopropyltoluene	10.000	8.676	13.2	90	0.00
63		1,4-Dichlorobenzene	10.000	9.820	1.8	97	0.00
64		n-Butylbenzene	10.000	8.123	18.8	85	0.00
65		1,2-Dichlorobenzene	10.000	9.767	2.3	97	0.00
66		1,2-Dibromo-3-chloropropane	10.000	10.083	-0.8	110	0.00
67		1,2,4-Trichlorobenzene	10.000	8.671	13.3	98	0.00
68		Hexachlorobutadiene	10.000	9.929	0.7	107	0.00
69		Naphthalene	10.000	8.929	10.7	99	0.00
70		1,2,3-Trichlorobenzene	10.000	8.917	10.8	100	0.00

AFCEE ORGANIC ANALYSES DATA SHEET 5 CALIBRATION VERIFICATION

Analytical Method: 8260 AAB #:

Lab Name: Life Science Laboratories, Inc. Contract #:

Instrument ID: HP5973 GCMS#1 Initial Calibration -ID: 1204

ICV ID: ICV-13065 CCV #1 ID: CCV-13066

SEE ATTACHED

Comments:			

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Last Update : Wed Mar 26 15:15:39 2008
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	95	0.00
2		Dichlorodifluoromethane	0.299	0.339	-13.4	93	0.00
3	₽	Chloromethane	0.389	0.343	11.8	77	0.00
4	CP	Vinyl chloride	0.324	0.320	1.2	83	0.00
5		Bromomethane	0.140	0.149	-6.4	98	0.00
6		Chloroethane	0.179	0.180	-0.6	87	0.00
7		Trichlorofluoromethane	0.387	0.487	-25.8#	105	0.00
8		Acetone	0.052	0.052	0.0	98	0.00
9	CPM	1,1-Dichloroethene	0.180	0.181	-0.6	82	0.00
10		Methylene chloride	0.255	0.228	10.6	82	0.00
11		trans-1,2-Dichloroethene	0.225	0.222	1.3	81	0.00
12		Methyl tert-Butyl ether	0.527	0.587	-11.4	92	0.00
13	P	1,1-Dichloroethane	0.457	0.437	4.4	81	0.00
14		2-Butanone	0.066	0.066	0.0	92	0.00
		cis-1,2-Dichloroethene	0.254	0.254	0.0	86	0.00
· ی		Bromochloromethane	0.102	0.106	-3.9	88	0.00
17	CP	Chloroform	0.429	0.438	-2.1	88	0.00
18		2,2-Dichloropropane	0.385	0.419	-8.8	91	0.00
19	S	1,2-Dichloroethane-d4	0.245	0.260	-6.1	91	0.0,0
20		1,2-Dichloroethane	0.293	0.307	-4.8	91	0.00
21		1,1,1-Trichloroethane	0.372	0.409	-9.9	90	0.00
22		1,1-Dichloropropene	0.342	0.337	1.5	81	0.00
23		Carbon tetrachloride	0.263	0.307	-16.7	96	0.00
24		Benzene	1.093	1.032	5.6	80	0.00
25	M	Trichloroethene	0.259	0.261	-0.8	85	0.00
26		Dibromomethane	0.111	0.115	-3.6	89	0.00
27	CP	1,2-Dichloropropane	0.256	0.237	7.4	79	0.00
28		Bromodichloromethane	0.275	0.299	-8.7	93	0.00
29		4-Methyl-2-pentanone	0.138	0.139	-0.7	91	0.00
30		cis-1,3-Dichloropropene	0.369	0.367	0.5	85	0.00
31		Toluene-d8	0.943	0.943	0.0	84	0.00
	CPM	Toluene	0.728	0.717	1.5	83	0.00
33		trans-1,3-Dichloropropene	0.297	0.316	-6.4	90	0.00
34		1,1,2-Trichloroethane	0.141	0.142	-0.7	86	0.00
35	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
36	•	1,2-Dibromoethane	0.355	0.368	-3.7	93	0.00
37		1,3-Dichloropropane	0.747	0.725	2.9	86	0.00
38		Dibromochloromethane	0.385	0.436	-13.2	100	0.00
20		Tetrachloroethene	0.630	0.657	-4.3	88	0.00
•		1-Chlorohexane	0.869	0.842	3.1	83	0.00
				720500			

(#) = Out of Range MT 3-26-08

Data File : C:\HPCHEM\1\DATA\T1982.D Vial: 17 Acq On : 25 Mar 2008 10:54 Sample : CCV-13066 Misc : CCV ,8260WAF_40CAL, Operator: MT Inst : #1MS11 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Last Update : Wed Mar 26 15:15:39 2008 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

Co	ompound	AvgRF	CCRF	%Dev A	Area% :	Dev(min)
42 PM Ch 43 CP Et 44 (r 45 o- 46 St 47 P Br	,1,1,2-Tetrachloroethane hlorobenzene thylbenzene m+p)-Xylene -Xylene tyrene romoform romofluorobenzene	0.456 1.708 3.255 1.209 1.175 1.908 0.210 0.875	1.678 3.201 1.195 1.162 1.928	-12.7 1.8 1.7 1.2 1.1 -1.0 -21.0# 1.6	99 87 85 85 86 86 109	0.00 0.00 0.00 0.00 0.00 0.00 0.00
50 P 1, 51 Is 52 1, 53 Br 53 C 2- 56 4- 57 1, 58 te 59 1, 60 se 61 1, 62 p- 63 1, 64 n- 65 1, 66 1, 67 1, 68 He 69 Na	,3,5-Trimethylbenzene ert-Butylbenzene ,2,4-Trimethylbenzene ec-Butylbenzene ,3-Dichlorobenzene -Isopropyltoluene ,4-Dichlorobenzene -Butylbenzene ,2-Dichlorobenzene ,2-Dichlorobenzene ,2-Trichlorobenzene exachlorobutadiene	1.000 0.558 3.950 0.501 0.858 4.683 3.125 2.764 3.262 2.849 2.977 4.197 1.694 3.396 1.644 2.678 1.539 0.081 0.862 0.660 1.044 0.808	1.000 0.514 3.759 0.468 0.823 4.389 2.895 2.575 3.144 2.794 2.814 4.072 1.626 3.286 1.573 2.421 1.474 0.083 0.846 0.707 1.010 0.809	0.9 4.61 3.4 6.13 4.6 7.6 3.1 5.0 4.2 2.1 2.1 3.1	106 90 87 91 92 85 87 88 89 87 91 87 91 92 87 91 92 87 91 92 87 91 92 87 91 91 91 91 91 91 91 91 91 91 91 91 91	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Vial: 17 Data File : C:\HPCHEM\1\DATA\T1982.D Acq On : 25 Mar 2008 10:54 Sample : CCV-13066 Misc : CCV ,8260WAF_40CAL, Operator: MT Inst : #1MS11 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Last Update : Wed Mar 26 15:15:39 2008 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	10.000	10.000	0.0	95	0.00
2		Dichlorodifluoromethane	10.000	10.221	-2.2	93	0.00
3	P	Chloromethane	10.000	8.809	11.9	77	0.00
4	CP	Vinyl chloride	10.000	9.891	1.1	83	0.00
5		Bromomethane	10.000	10.672	-6.7	98	0.00
6		Chloroethane	10.000	10.088	-0.9	87	0.00
7		Trichlorofluoromethane	10.000	11.400	-14.0	105	0.00
8		Acetone	20.000	20.079	-0.4	98	0.00
9	CPM	1,1-Dichloroethene	10.000	9.171	8.3	82	0.00
10		Methylene chloride	10.000	8.951	10.5	82	0.00
11		trans-1,2-Dichloroethene	10.000	9.846	1.5	81	0.00
12		Methyl tert-Butyl ether	10.000	11.141	-11.4	92	0.00
13	P	1,1-Dichloroethane	10.000	9.569	4.3	81	0.00
14		2-Butanone	20.000	19.833	0.8	92	0.00
		cis-1,2-Dichloroethene	10.000	10.025	-0.3	86	0.00
ם ב ֹ		Bromochloromethane	10.000	10.482	-4.8	88	0.00
17	CP	Chloroform	10.000	10.195	-2.0	88	0.00
18		2,2-Dichloropropane	10.000	10.882	-8.8	91	0.00
19	S	1,2-Dichloroethane-d4	10.000	10.593	-5.9	91	0.00
20		1,2-Dichloroethane	10.000	10.473	-4.7	91	0.00
21		1,1,1-Trichloroethane	10.000	9.952	0.5	90	0.00
22		1,1-Dichloropropene	10.000	8.933	10.7	81	0.00
23		Carbon tetrachloride	10.000	10.045	-0.4	96	0.00
24	M	Benzene	10.000	9.442	5.6	80	0.00
25	M	Trichloroethene	10.000	10.064	-0.6	85	0.00
26		Dibromomethane	10.000	10.397	-4.0	89	0.00
27	CP	1,2-Dichloropropane	10.000	9.252	7.5	79	0.00
28		Bromodichloromethane	10.000	9.889	1.1	93	0.00
29		4-Methyl-2-pentanone	20.000	20.164	-0.8	91	0.00
30		cis-1,3-Dichloropropene	10.000	9.065	9.4	85	0.00
31	S	Toluene-d8	10.000	10.009	-0.1	84	0.00
32	CPM	Toluene	10.000	9.839	1.6	83	0.00
33		trans-1,3-Dichloropropene	10.000	9.550	4.5	90	0.00
34		1,1,2-Trichloroethane	10.000	10.094	-0.9	86	0.00
35	I	Chlorobenzene-d5	10.000	10.000	0.0	98	0.00
36		1,2-Dibromoethane	10.000	10.381	-3.8	93	0.00
37		1,3-Dichloropropane	10.000	9.705	2.9	86	0.00
38		Dibromochloromethane	10.000	9.885	1.2	100	0.00
_ 3		Tetrachloroethene	10.000	9.514	4.9	88	0.00
,		1-Chlorohexane	10.000	8.788	12.1	83	0.00

Data File : C:\HPCHEM\1\DATA\T1982.D Vial: 17 Acq On : 25 Mar 2008 10:54 Sample : CCV-13066 Misc : CCV ,8260WAF 40CAL, Operator: MT Inst : #1MS11 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\T318AF31.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Last Update : Wed Mar 26 15:15:39 2008 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41		1,1,1,2-Tetrachloroethane	10.000	9.987	0.1	99	0.00
42 P		Chlorobenzene	10.000	9.826	1.7	87 85	0.00 0.00
43 C	P	Ethylbenzene	10.000	9.831	$\frac{1.7}{1.2}$	85 85	0.00
44 45		(m+p)-Xylene	20.000	19.756 9.887	1.1	86	0.00
45 46		o-Xylene Styrene	10.000 10.000	9.164	8.4	86	0.00
40 47 P	ı	Bromoform	10.000	10.185	-1.9	109	0.00
47 F		Bromofluorobenzene	10.000	9.499	5.0	89	0.00
40 3	•	BIOMOTIUOLOBENZENE	10.000	7.433	5.0	65	0.00
49 I		1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
50 P	İ	1,1,2,2-Tetrachloroethane	10.000	9.198	8.0	90	0.00
51		Isopropylbenzene	10.000	9.515	4.8	87	0.00
52		1,2,3-Trichloropropane	10.000	9.343	6.6	91	0.00
53		Bromobenzene	10.000	9.599	4.0	92	0.00
		n-Propylbenzene	10.000	9.372	6.3	85	0.00
رات		2-Chlorotoluene	10.000	9.262	7.4	87	0.00
56		4-Chlorotoluene	10.000	9.315	6.9	88	0.00
57		1,3,5-Trimethylbenzene	10.000	9.639	3.6	89	0.00
58		tert-Butylbenzene	10.000	8.966	10.3	89	0.00
59		1,2,4-Trimethylbenzene	10.000	8.515	14.8	87	0.00
60		sec-Butylbenzene	10.000	8.771	12.3	87	0.00
61		1,3-Dichlorobenzene	10.000	9.599	4.0	91	0.00
62		p-Isopropyltoluene	10.000	8.621	13.8	87	0.00
63		1,4-Dichlorobenzene	10.000	9.573	4.3	92	0.00
64		n-Butylbenzene	10.000	8.000	20.0	81	0.00
65		1,2-Dichlorobenzene	10.000	9.581	4.2	93	0.00
66		1,2-Dibromo-3-chloropropane	10.000	8.946	10.5	94	0.00
67		1,2,4-Trichlorobenzene	10.000	8.607	13.9	94	0.00
68		Hexachlorobutadiene	10.000	9.490	5.1	98	0.00
69		Naphthalene	10.000	8.896	11.0	95	0.00
70		1,2,3-Trichlorobenzene	10.000	8.792	12.1	95	0.00

AFCEE ORGANIC ANALYSES DATA SHEET 5 CALIBRATION VERIFICATION

Analytical Method: 8260B		AAB#:
Lab Name: Life Science Laboratories, Inc.		Contract #:
Instrument ID: HP5970 GCMS#2		Initial Calibration -ID: 1212
ICV ID: ICV-13052		CCV #1 ID: CCV-13111
	SEE ATTACHED	
Comments:		

Data File : C:\HPCHEM\1\DATA\M4724.D

Vial: 2 Operator: GS

Acq On : 28 Mar 2008 10:06 Sample : CCV-13111
Misc : CCV ,8260WAF_40CAL, Inst : #2MS12 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\M324AF31.M (RTE Integrator)
Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df
Last Update : Tue Apr 01 09:12:14 2008

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 :	I	Fluorobenzene	1.000	1.000	0.0	95	0.00
2		Dichlorodifluoromethane	0.711	0.742	-4.4	81	0.00
3]	P	Chloromethane	0.257	0.252	1.9	83	0.00
	CP	Vinyl chloride	0.221	0.247	-11.8	85	0.00
5		Bromomethane	0.232	0.203	12.5	74	0.00
6		Chloroethane Apply to the control of	0.133	0.162	-21.8#		0.00
7		Trichlorofluoromethane	0.642	0.717	-11.7	90	0.00
8		Acetone and the second	0.026	0.026#	0.0	93	0.00
9 (CPM	1,1-Dichloroethene	0.211	0.241	-14.2	96	0.00
10		Methylene chloride	0.294	0.307	-4.4	108	0.00
11		trans-1,2-Dichloroethene	0.292	0.329	-12.7	97	0.00
12		Methyl tert-Butyl ether	0.358	0.429	-19.8	111	0.00
13 I	P	1,1-Dichloroethane	0.543	0.582	-7.2	95	0.00
14		2-Butanone	0.042	0.043#	-2.4	90	0.00
		cis-1,2-Dichloroethene	0.306	0.340	-11.1	98	0.00
16		Bromochloromethane	0.176	0.192	-9.1	97	0.00
17 (CP	Chloroform Market and Chloroform	0.676	0.708	-4.7	95	0.00
18		2,2-Dichloropropane	0.413	0.469	-13.6	96	0.00
19 8	S	1,2-Dichloroethane-d4	0.227	0.247	-8.8	101	0.00
20		1,2-Dichloroethane	0.269	0.295	-9.7	101	0.00
21		1,1,1-Trichloroethane	0.514	0.566	-10.1	93	0.00
22		1,1-Dichloropropene	0.410	0.466	-13.7	95	0.00
23		Carbon tetrachloride	0.517	0.568	-9.9	91	0.00
24 N	Μ	Benzene *********************************	0.789	0.831	-5.3	92	0.00
25 N	M	Trichloroethene	0.410	0.440	-7.3	93	0.00
26		Dibromomethane has been been been been been been been bee	0.284	0.311	-9.5	100	0.00
27 (CP	1,2-Dichloropropane	0.298	0.326	-9.4	98	0.00
28		Bromodichloromethane	0.675	0.760	-12.6	98	0.00
29		4-Methyl-2-pentanone	0.097	0.115	-18.6	123	0.00
30		cis-1,3-Dichloropropene	0.416	0.466	-12.0	98	0.00
31 8	S	Toluene-d8	0.780	0.838	-7.4	94	0.00
32 (CPM	Toluene	0.501	0.541	-8.0	93	0.00
33		trans-1,3-Dichloropropene	0.275	0.310	-12.7	99	0.00
34		1,1,2-Trichloroethane	0.193	0.220	-14.0	102	0.00
35]	Ι	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
36		1,2-Dibromoethane	0.651	0.734	-12.7	101	0.00
37		1,3-Dichloropropane	0.634	0.735	-15.9	102	0.00
38		Dibromochloromethane	0.981	1.125	-14.7	99	0.00
		Tetrachloroethene	0.900	0.998	-10.9	91	0.00
		1-Chlorohexane	0.604	0.717	-18.7	94	,0.00
					. – – – – –	4	H-0

(#) = Out of Range

M4724.D M324AF31.M Tue Apr 01 09:21:03 2008

Data File : C:\HPCHEM\1\DATA\M4724.D

4-15-6-15-55

Vial: 2

Acq On : 28 Mar 2008 10:06 Operator: GS Sample : CCV-13111 (2016)
Misc : CCV ,8260WAF 40CAL,
MS Integration Params: RTEINT.P Inst : #2MS12 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\M324AF31.M (RTE Integrator)
Title : VOC!s w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df

Last Update : Tue Apr 01 09:12:14 2008 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

-		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		1,1,1,2-Tetrachloroethane	0.707	0.766	-8.3	94	0.00
	PM	Chlorobenzene	1.268	1.390	-9.6	94	0.00
43	CP	Ethylbenzene	1.687	1.938	-14.9	97	0.00
44		(m+p)-Xylene	0.605	0.672	-11.1	93	0.00
45		o-Xylene	0.608	0.683	-12.3	94	0.00
46		Styrene	0.999	1.147	-14.8	96	0.00
47	P	Bromoform Researcher	0.546	0.635	-16.3	101	0.00
48	S	Bromofluorobenzene	1.191	1.295	-8.7	97	0.00
		$ \psi_{n+1} e_{n+1} \leq \psi_{n+1} $	*				
49	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
50	P	1,1,2,2-Tetrachloroethane	0.970	1.075	-10.8	107	0.00
51		Isopropylbenzene	2.622	2.900	-10.6	95	0.00
52		1,2,3-Trichloropropane	0.585	0.631	-7.9	96	0.07
ΕĴ		Bromobenzene	1.042	1.077	-3.4	95	0.00
-		n-Propylbenzene	2.928	3.210	-9.6	94	0.00
55		2-Chlorotoluene	2.518	2.627	-4.3	98	0.00
56		4-Chlorotoluene	2.250	2.439	-8.4	91	0.00
57		1,3,5-Trimethylbenzene	1.663	1.799	-8.2	95	0.00
58		tert-Butylbenzene	1.785	1.970	-10.4	95	0.00
59		1,2,4-Trimethylbenzene	1.466	1.578	-7.6	95	0.00
60		sec-Butylbenzene	2.451	2.706	-10.4	93	0.00
61		1,3-Dichlorobenzene	1.564	1.667	-6.6	96	0.00
62		p-Isopropyltoluene	1.702	1.845	-8.4	93	0.00
63		1,4-Dichlorobenzene	1.408	1.493	-6.0	97	0.00
64		n-Butylbenzene	1.403	1.535	-9.4	93	0.00
65		1,2-Dichlorobenzene	1.402	1.446	-3.1	94	0.00
66		1,2-Dibromo-3-chloropropane	0.160	0.180	-12.5	108	0.00
67		1,2,4-Trichlorobenzene	0.573	0.629	-9.8	98	0.00
68		Hexachlorobutadiene	0.644	0.661	-2.6	88	0.00
69		Naphthalene	0.399	0.440	-10.3	115	0.00
70		1,2,3-Trichlorobenzene	0.422	0.500	-18.5	109	0.00

\$43.74

Vial: 2

Data File : C:\HPCHEM\1\DATA\M4724.D

Acq On : 28 Mar 2008 10:06 Operator: GS Inst : #2MS12

Sample : CCV-13111
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\M324AF31.M (RTE Integrator) Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Last Update : Tue Apr 01 09:12:14 2008

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		PIGA.	Share Con	Arca .	2000			
Dichlorodifluoromethane				Amount	Calc.	%Dev	Area%	Dev(min)
Dichlorodifluoromethane	1	I	Fluorobenzene	10.000	10.000	0.0	95	0.00
3 P Chloromethane								
4 CP Vinyl chloride 10.000 9.817 1.8 85 0.00 5 Bromomethane 10.000 8.117 18.8 74 0.00 6 Chloroethane 10.000 10.019 -0.2 86 0.00 7 Trichlorofluoromethane 20.000 19.377 3.1 93 0.00 9 CPM 1,1-Dichloroethene 10.000 10.267 -2.7 96 0.00 10 Methylene chloride 10.000 11.297 -13.0 108 0.00 11 trans-1,2-Dichloroethene 10.000 11.399 -19.9 111 0.00 12 Methyl tert-Butyl ether 10.000 11.989 -19.9 111 0.00 13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 16 Bromochloromethane 10.000 10.473 -4.7 95 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 <t< td=""><td></td><td>Р</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Р						
5 Bromomethane 10.000 8.117 18.8 74 0.00 6 Chloroethane 10.000 10.019 -0.2 86 0.00 7 Trichlorofluoromethane 10.000 10.110 -1.1 90 0.00 8 Acetone 20.000 19.377 3.1 93 0.00 10 Methylene chloride 10.000 11.297 -13.0 108 0.00 11 trans-1,2-Dichloroethene 10.000 11.297 -13.0 108 0.00 12 Methyl tert-Butyl ether 10.000 10.135 -13 97 0.00 13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 15 CP Chloroform 10.000 10.922 -9.2 97 0.00 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>								
6 Chloroethane 10.000 10.019 -0.2 86 0.00 7 Trichlorofluoromethane 10.000 10.110 -1.1 90 0.00 8 Acetone 20.000 19.377 3.1 93 0.00 9 CPM 1,1-Dichloroethene 10.000 10.267 -2.7 96 0.00 10 Methylene chloride 10.000 10.1297 -13.0 108 0.00 11 trans-1,2-Dichloroethene 10.000 10.135 -1.3 97 0.00 12 Methyl tert-Butyl ether 10.000 10.799 -7.1 95 0.00 13 P 1,1-Dichloroethane 10.000 10.799 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 15 P 1,1-Dichloroethane 10.000 10.983 -11.0 98 0.00 16 Bromochloromethane 10.000 10.257 -2.6 96				'				
Trichlorofluoromethane	6							
8 Acetone 20.000 19.377 3.1 93 0.00 9 CPM 1,1-Dichloroethene 10.000 10.267 -2.7 96 0.00 10 Methylene chloride 10.000 11.297 -13.0 108 0.00 11 trans-1,2-Dichloroethene 10.000 11.35 -1.3 97 0.00 12 Methyl tert-Butyl ether 10.000 10.799 -19.9 111 0.00 13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 16 Bromochloromethane 10.000 11.098 -11.0 98 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 0.00 18 2,2-Dichloroptopane 10.000 10.257 -2.6 96 0.00 19 S 1,2-Dichloroptopane 10.000 10.907 -9.1 101								
9 CPM 1,1-Dichloroethene 10.000 10.267 -2.7 96 0.00 10 Methylene chloride 10.000 11.297 -13.0 108 0.00 11 trans-1,2-Dichloroethene 10.000 10.135 -1.3 97 0.00 12 Methyl tert-Butyl ether 10.000 11.989 -19.9 111 0.00 13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 16 Bromochloromethane 10.000 11.098 -11.0 98 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 0.00 18 2,2-Dichloroethane 10.000 10.473 -4.7 95 0.00 19 S 1,2-Dichloroethane 10.000 10.927 -9.2 97 0.00 20 1,2-Dichloroethane 10.000 10.967 -9.1 101 0.00 21 1,1,1-Trichloroethane 10.000 10.965 -9.6 101 0.00 22 1,1-Dichloropropene 10.000 10.965 -9.6 101 0.00 23 Carbon tetrachloride 10.000 9.856 1.4 93 0.00 24 M Benzene 10.000 9.674 3.3 91 0.00 25 M Trichloroethene 10.000 10.540 -5.4 92 0.00 26 Dibromomethane 10.000 10.917 -9.2 98 0.00 27 CP 1,2-Dichloropropane 10.000 10.917 -9.2 98 0.00 28 Bromodichloromethane 10.000 10.917 -9.2 98 0.00 29 4-Methyl-2-pentanone 20.000 23.705 -18.5 123 0.00 20 cis-1,3-Dichloropropene 10.000 11.261 -12.6 98 0.00 21 GPM Toluene 10.000 10.804 -0.3 99 0.00 22 CPM Toluene 10.000 10.804 -0.3 99 0.00 23 Carbon Tetrachloropropene 10.000 11.261 -12.6 98 0.00 24 Moluene 10.000 10.917 -9.2 98 0.00 25 GPM Toluene 10.000 11.444 -14.4 102 0.00 26 Cis-1,3-Dichloropropene 10.000 11.261 -12.6 98 0.00 27 CP 1,2-Dichloropropene 10.000 11.261 -12.6 98 0.00 28 GPM Toluene 10.000 11.444 -14.4 102 0.00 30 trans-1,3-Dichloropropene 10.000 11.444 -14.4 102 0.00 31 S Toluene-d8 10.000 11.267 -12.7 101 0.00 32 CPM Toluene 10.000 11.267 -12.7 101 0.00 33 trans-1,3-Dichloropropane 10.000 11.267 -12.7 101 0.00 34 1,1,2-Trichloroethane 10.000 11.465 -14.7 99 0.00 35 I Chlorobenzene-d5 10.000 11.465 -14.7 99 0.00 36 1,2-Dibromochlane 10.000 11.465 -14.7 99 0.00 37 1,3-Dichloropropane 10.000 11.265 -14.7 99 0.00 38 Dibromochloromethane 10.000 11.085 -10.9 91 0.00 1-Chloropexane 10.000 11.085 -10.9 91 0.00								
10		CPM	±					
11				,				
12								
13 P 1,1-Dichloroethane 10.000 10.709 -7.1 95 0.00 14 2-Butanone 20.000 20.726 -3.6 90 0.00 cis-1,2-Dichloroethene 10.000 11.098 -11.0 98 0.00 16 Bromochloromethane 10.000 10.922 -9.2 97 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 0.00 18 2,2-Dichloropropane 10.000 10.257 -2.6 96 0.00 19 S 1,2-Dichloroethane-d4 10.000 10.965 -9.6 101 0.00 20 1,2-Dichloroethane 10.000 10.965 -9.6 101 0.00 21 1,1,1-Trichloroethane 10.000 10.064 -0.6 95 0.00 22 1,1-Dichloropropene 10.000 10.540 -5.4 92 0.00 23 Carbon tetrachloride 10.000 10.540 -5.4 92 0.00 24 M Benzene 10.000 10.728 -7.3 93								
14		P						
cis-1,2-Dichloroethene 10.000 11.098 -11.0 98 0.00 16 Bromochloromethane 10.000 10.922 -9.2 97 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 0.00 18 2,2-Dichloropropane 10.000 10.257 -2.6 96 0.00 19 S 1,2-Dichloroethane-d4 10.000 10.907 -9.1 101 0.00 20 1,2-Dichloroethane 10.000 10.965 -9.6 101 0.00 21 1,1,1-Trichloroethane 10.000 10.064 -0.6 95 0.00 22 1,1-Dichloropropene 10.000 10.540 -5.4 92 0.00 24 M Benzene 10.000 10.540 -5.4 92 0.00 25 M Trichloroethene 10.000 10.728 -7.3 93 0.00 26 Dibromomethane 10.000 10.924 -9.								
16 Bromochloromethane 10.000 10.922 -9.2 97 0.00 17 CP Chloroform 10.000 10.473 -4.7 95 0.00 18 2,2-Dichloropropane 10.000 10.257 -2.6 96 0.00 19 S. 1,2-Dichloroethane-d4 10.000 10.907 -9.1 101 0.00 20 1,2-Dichloroethane 10.000 10.965 -9.6 101 0.00 21 1,1,1-Trichloroethane 10.000 10.064 -0.6 95 0.00 22 1,1-Dichloropropene 10.000 10.540 -5.4 93 0.00 23 Carbon tetrachloride 10.000 10.540 -5.4 92 0.00 24 M Benzene 10.000 10.728 -7.3 93 0.00 25 M Trichloroethane 10.000 10.924 -9.2 100 0.00 26 Dibromoethane 10.000 10.91 -9.								
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32 CPM Toluene 10.000 10.809 -8.1 93 0.00 33 trans-1,3-Dichloropropene 10.000 10.034 -0.3 99 0.00 34 1,1,2-Trichloroethane 10.000 11.444 -14.4 102 0.00 35 I Chlorobenzene-d5 10.000 10.000 0.00 0.0 93 0.00 36 1,2-Dibromoethane 10.000 11.267 -12.7 101 0.00 37 1,3-Dichloropropane 10.000 11.581 -15.8 102 0.00 38 Dibromochloromethane 10.000 11.465 -14.7 99 0.00 Tetrachloroethene 10.000 11.085 -10.9 91 0.00 1-Chlorohexane 10.000 10.266 -2.7 94 0.00	31	S		10.000	10.746	-7.5	94	0.00
33 trans-1,3-Dichloropropene 10.000 10.034 -0.3 99 0.00 34 1,1,2-Trichloroethane 10.000 11.444 -14.4 102 0.00 35 I Chlorobenzene-d5 10.000 10.000 0.0 93 0.00 36 1,2-Dibromoethane 10.000 11.267 -12.7 101 0.00 37 1,3-Dichloropropane 10.000 11.581 -15.8 102 0.00 38 Dibromochloromethane 10.000 11.465 -14.7 99 0.00 Tetrachloroethene 10.000 11.085 -10.9 91 0.00 1-Chlorohexane 10.000 10.266 -2.7 94 0.00	32	CPM		10.000	10.809	-8.1	93	0.00
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36 1,2-Dibromoethane 10.000 11.267 -12.7 101 0.00 37 1,3-Dichloropropane 10.000 11.581 -15.8 102 0.00 38 Dibromochloromethane 10.000 11.465 -14.7 99 0.00 Tetrachloroethene 10.000 11.085 -10.9 91 0.00 1-Chlorohexane 10.000 10.266 -2.7 94 0.00	34				11.444	-14.4	102	0.00
36 1,2-Dibromoethane 10.000 11.267 -12.7 101 0.00 37 1,3-Dichloropropane 10.000 11.581 -15.8 102 0.00 38 Dibromochloromethane 10.000 11.465 -14.7 99 0.00 Tetrachloroethene 10.000 11.085 -10.9 91 0.00 1-Chlorohexane 10.000 10.266 -2.7 94 0.00								
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1-Chlorohexane 10.000 10.266 -2.7 94 0.00	38							
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2 110	د .		1-Chlorohexane	10.000	10.266	-2.7	94	0.00

^{(#) =} Out of Range

Data File : C:\HPCHEM\1\DATA\M4724.D

Acq On : 28 Mar 2008 10:06

Sample : CCV-13111 : CCV ,8260WAF_40CAL, Inst : #2MS12 Multiplr: 1.00

Vial: 2

Operator: GS

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\M324AF31.M (RTE Integrator)
Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df

Last Update : Tue Apr 01 09:12:14 2008 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

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		Compound		Amount	Calc.	%Dev	Area%	Dev(min)
41		1,1,1,2-Tetrachle	proethane	10.000	10.833	-8.3	94	0.00
42	PM	Chlorobenzene		10.000	10.964	-9.6	94	0.00
43	CP	Ethylbenzene	y A	10.000	11.490	-14.9	97	0.00
44		Ethylbenzene (m+p)-Xylene	1	20.000	19.953	0.2	93	0.00
45		o-Xylene	•	10.000	9.981	0.2	94	0.00
46		Styrene	· · · · · · · · · · · · · · · · · · ·	10.000	10.165	-1.6	96	0.00
47	P	Bromoform	Marine Co.	10.000	10.430	-4.3	101	0.00
48	S	Bromofluorobenzer		10.000	10.874	-8.7	97	0.00
			20 - 12 1	•				
	I	1,4-Dichlorobenze		10.000	10.000	0.0	96	0.00
50	P	1,1,2,2-Tetrachlo		10.000	11.078	-10.8	107	0.00
51		Isopropylbenzene		10.000	11.062	-10.6	95	0.00
52		1,2,3-Trichloropr	ropane	10.000	10.786	-7.9	96	0.07
Ľζ		Bromobenzene		10.000	10.329	-3.3	95	0.00
		n-Propylbenzene		10.000	10.964	-9.6	94	0.00
55		2-Chlorotoluene		10.000	10.434	-4.3	98	0.00
56		4-Chlorotoluene		10,000	10.842	-8.4	91	0.00
57		1,3,5-Trimethylbe		10.000	9.797	2.0	95	0.00
58		tert-Butylbenzene		10.000	9.907	0.9	95	0.00
59		1,2,4-Trimethylbe		10.000	9.671	3.3	95	0.00
60		sec-Butylbenzene	1.0	10.000	9.785	2.1	93	0.00
61		1,3-Dichlorobenze	ene	10.000	10,659	-6.6	96	0.00
62		p-Isopropyltoluer		10.000	9.482	5.2	93	0.00
63		1,4-Dichlorobenze		10.000	10.604	-6.0	97	0.00
64		n-Butylbenzene		10.000	9.414	5.9	93	0.00
65		1,2-Dichlorobenze		10.000	10.312	-3.1	94	0.00
66		1,2-Dibromo-3-chl	oropropane	10.000	11.284	-12.8	108	0.00
67		1,2,4-Trichlorobe		10.000	9.799	2.0	98	0.00
68		Hexachlorobutadie		10.000	10.260	-2.6	88	0.00
69		Naphthalene		10.000	11.032	-10.3	115	0.00
70		1,2,3-Trichlorobe	nzene	10.000	10.627	-6.3	109	0.00
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Analytical Method:

SW8260B

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

μg/L

Method Blank ID:

MB-13058

Initial Calibration ID:

<u>1204</u>

File ID:

T1964.D

Analyte	Method Blank	RL	Q
(m+p)-Xylene	0.100	2.00	U
1,1,1,2-Tetrachloroethane	0.250	0.500	U
1,1,1-Trichloroethane	0.160	1.00	U
1,1,2,2-Tetrachloroethane	0.160	0.500	U
1,1,2-Trichloroethane	0.250	1.00	U
1,1-Dichloroethane	0.160	1.00	U
1,1-Dichloroethene	0.250	1.00	U
1,1-Dichloropropene	0.250	1.00	U
1,2,3-Trichlorobenzene	0.500	1.00	U
1,2,3-Trichloropropane	1.00	2.00	U
1,2,4-Trichlorobenzene	0.500	1.00	U
1,2,4-Trimethylbenzene	0.160	1.00	U
1,2-Dibromo-3-chloropropane	2.50	5.00	U
1,2-Dibromoethane	0.250	1.00	U
1,2-Dichlorobenzene	0.160	1.00	U
1,2-Dichloroethane	0.250	0.500	U
1,2-Dichloropropane	0.160	1.00	U
1,3,5-Trimethylbenzene	0.160	1.00	U
1,3-Dichlorobenzene	0.160	1.00	U
1,3-Dichloropropane	0.160	0.500	U
1,4-Dichlorobenzene	0.160	0.500	U
1-Chlorohexane	0.250	1.00	U
2,2-Dichloropropane	0.500	1.00	U
2-Butanone	2.50	10.0	U
2-Chlorotoluene	0.100	1.00	U
4-Chiorotoluene	0.100	1.00	U
4-Methyl-2-pentanone	1.00	10.0	U
Acetone	2.50	10.0	u
Benzene	0.160	0.500	U
Bromobenzene	0.160	1.00	U
Bromochloromethane	0.160	1.00	U
Bromodichloromethane	0.160	0.500	U
Bromoform	0.500	1.00	U
Bromomethane	0.190	3.00	U
Carbon tetrachloride	0.250	1.00	. U

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Analytical Method:

SW8260B

AAB #:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

μg/L

Method Blank ID:

MB-13058

Initial Calibration ID:

<u>1204</u>

File ID:

T1964.D

Analyte	Method Blank	RL	Q
Chlorobenzene	0.160	0.500	U
Chloroethane	0.500	1.00	U
Chloroform	0.100	0.500	U
Chloromethane	0.500	1.00	Ü
cis-1,2-Dichloroethene	0.160	1.00	U
cis-1,3-Dichloropropene	0.250	0.500	U
Dibromochloromethane	0.160	0.500	U
Dibromomethane	0.160	1.00	U
Dichlorodifluoromethane	0.250	1.00	Ų
Ethylbenzene	0.100	1.00	U
Hexachlorobutadiene	0.500	1.00	U
Isopropylbenzene	0.160	1.00	U
Methyl tert-butyl ether	0.500	5.00	U
Methylene chloride	0.160	1.00	υ
n-Butylbenzene	0.160	1.00	U
n-Propylbenzene	0.100	1.00	U
Naphthalene	0.500	1.00	U
o-Xylene	0.160	1.00	Ų
p-Isopropyltoluene	0.160	1.00	U
sec-Butylbenzene	0.160	1.00	U
Styrene	0.160	1.00	U
tert-Butylbenzene	0.160	1.00	U
Tetrachloroethene	0.100	1.00	U
Toluene	0.100	1.00	U
trans-1,2-Dichloroethene	0.160	1.00	U
trans-1,3-Dichloropropene	0.250	1.00	U
Trichloroethene	0.100	1.00	U
Trichlorofluoromethane	0.100	1.00	U
Vinyl chloride	0.500	1.00	U
Xylenes (total)	0.260	2.00	U

Surrogate	Recovery	Control limits Qualifi	er
1,2-Dichloroethane-d4	107	72 - 119	
4-Bromofluorobenzene	100	76 - 119	
Toluene-d8	103	81 - 120	

C	om	me	nts

Analytical Method:

SW8260B

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>ид/L</u>

Method Blank ID:

MB-13058

Initial Calibration ID:

<u>1204</u>

File ID:

T1964.D

internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	695100	306228 - 1224912
Chlorobenzene-d5	804227	370666 - 1482666
Fluorobenzene	1839333	849584 - 3398336

Comments:	

Analytical Method:

SW8260B

AAB#:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>µg/L</u>

Method Blank ID:

MB-13066

Initial Calibration ID:

<u>1204</u>

File ID:

T1986.D

Analyte	Method Blank	RL	Q
(m+p)-Xylene	0.100	2.00	U
1,1,1,2-Tetrachloroethane	0.250	0.500	U
1,1,1-Trichloroethane	0.160	1.00	U
1,1,2,2-Tetrachloroethane	0.160	0.500	U
1,1,2-Trichloroethane	0.250	1.00	U
1,1-Dichloroethane	0.160	1.00	U
1,1-Dichloroethene	0.250	1.00	U
1,1-Dichloropropene	0.250	1.00	U
1,2,3-Trichlorobenzene	0.500	1.00	U
1,2,3-Trichloropropane	1.00	2.00	U
1,2,4-Trichlorobenzene	0.500	1.00	U
1,2,4-Trimethylbeпzene	0.160	1.00	U
1,2-Dibromo-3-chloropropane	2.50	5.00	U
1,2-Dibromoethane	0.250	1.00	U
1,2-Dichlorobenzene	0.160	1.00	U
1,2-Dichloroethane	0.250	0.500	U
1,2-Dichloropropane	0.160	1.00	U
1,3,5-Trimethylbenzene	0.160	1.00	U
1,3-Dichlorobenzene	0.160	1.00	U
1,3-Dichloropropane	0.160	0.500	U
1,4-Dichlorobenzene	0.160	0.500	U
1-Chlorohexane	0.250	1.00	U
2,2-Dichloropropane	0.500	1.00	· U
2-Butanone	2.50	10.0	U
2-Chlorotoluene	0.100	1.00	U
4-Chlorotoluene	0.100	1.00	U
4-Methyl-2-pentanone	1.00	10.0	U
Acetone	2.50	10.0	U
Benzene	0.160	0.500	U
Bromobenzene	0.160	1.00	U
Bromochloromethane	0.160	1.00	U
Bromodichloromethane	0.160	0.500	U
Bromoform	0.500	1.00	U
Bromomethane	0.190	3.00	U
Carbon tetrachloride	0.250	1.00	U

Analytical Method:

<u>SW8260B</u>

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>μg/L</u>

Method Blank ID:

MB-13066

Initial Calibration ID:

1204

File ID:

T1986.D

Analyte	Method Blank	RL	Q
Chlorobenzene	0.160	0.500	U
Chloroethane	0.500	1.00	U
Chloroform	0.100	0.500	U
Chloromethane	0.500	1.00	U
cis-1,2-Dichloroethene	0.160	1.00	U
cis-1,3-Dichloropropene	0.250	0.500	U
Dibromochloromethane	0.160	0.500	U
Dibromomethane	0.160	1.00	U
Dichlorodifluoromethane	0.250	1.00	U
Ethylbenzene	0.100	1.00	U
Hexachlorobutadiene	0.500	1.00	U
Isopropylbenzene	0.160	1.00	U
Methyl tert-butyl ether	0.500	5.00	U
Methylene chloride	0.160	1.00	U
n-Butylbenzene	0.160	1.00	U
n-Propylbenzene	0.100	1.00	U
Naphthalene	0.500	1.00	U
o-Xylene	0.160	1.00	U
p-Isopropyltoluene	0.160	1.00	U
sec-Butylbenzene	0.160	1.00	U
Styrene	0.160	1.00	U
tert-Butylbenzene	0.160	1.00	U
Tetrachloroethene	0.100	1.00	U
Toluene	0.100	1.00	U
trans-1,2-Dichloroethene	0.160	1.00	U
trans-1,3-Dichloropropene	0.250	1.00	U
Trichloroethene	0.100	1.00	U
Trichlorofluoromethane	0.100	1.00	U
Vinyl chloride	0.500	1.00	U
Xylenes (total)	0.260	2.00	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	108	72 - 119	
4-Bromofluorobenzene	96	76 - 119	
Toluene-d8	103	81 - 120	

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Analytical Method:

SW8260B

AAB#:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

μg/L

Method Blank ID:

MB-13066

Initial Calibration ID:

<u>1204</u>

File ID:

T1986.D

internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	694308	306228 - 1224912	
Chlorobenzene-d5	825441	370666 - 1482666	
Fluorobenzene	1847105	849584 - 3398336	

Comments,			
		 	

Analytical Method:

SW8260B

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

μg/L

Method Blank ID:

MB-13111

Initial Calibration ID:

<u>1212</u>

File ID:

M4742.D

Analyte	Method Blank	RL	Q
(m+p)-Xylene	0.100	2.00	U
1,1,1,2-Tetrachloroethane	0.250	0.500	U
1,1,1-Trichloroethane	0.160	1.00	U
1,1,2,2-Tetrachloroethane	0.160	0.500	U
1,1,2-Trichloroethane	0.250	1.00	U
1,1-Dichloroethane	0.160	1.00	U
1,1-Dichloroethene	0.250	1.00	U
1,1-Dichloropropene	0.250	1.00	U
1,2,3-Trichlorobenzene	0.500	1.00	U
1,2,3-Trichloropropane	1.00	2.00	U
1,2,4-Trichlorobenzene	0.500	1.00	U
1,2,4-Trimethylbenzene	0.160	1.00	U
1,2-Dibromo-3-chloropropane	2.50	5.00	U
1,2-Dibromoethane	0.250	1.00	U
1,2-Dichlorobenzene	0.160	1.00	U
1,2-Dichloroethane	0.250	0.500	Ü
1,2-Dichloropropane	0.160	1.00	U
1,3,5-Trimethylbenzene	0.160	1.00	U
1,3-Dichlorobenzene	0.160	1.00	U
1,3-Dichloropropane	0.160	0.500	U
1,4-Dichlorobenzene	0.160	0.500	U
1-Chlorohexane	0.250	1.00	U
2,2-Dichloropropane	0.500	1.00	U
2-Butanone	2.50	10.0	U
2-Chlorotoluene	0.100	1.00	U
4-Chlorotoluene	0.100	1.00	U
4-Methyl-2-pentanone	1.00	10.0	U
Acetone	2.50	10.0	U
Benzene	0.160	0.500	U
Bromobenzene	0.160	1.00	U
Bromochloromethane	0.160	1.00	U
Bromodichloromethane	0.160	0.500	U
Bromoform	0.500	1.00	U
Bromomethane	0.190	3.00	U
Carbon tetrachloride	0.250	1.00	U

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		nts	

Analytical Method:

SW8260B

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>μg/L</u>

Method Blank ID:

<u>MB-13111</u>

Initial Calibration ID:

<u>1212</u>

File ID:

M4742.D

Analyte	Method Blank	RL	Q
Chlorobenzene	0.160	0.500	U
Chloroethane	0.500	1.00	U
Chloroform	0.100	0.500	U
Chloromethane	0.500	1.00	U
cis-1,2-Dichloroethene	0.160	1.00	U
cis-1,3-Dichloropropene	0.250	0.500	U
Dibromochloromethane	0.160	0.500	U
Dibromomethane	0.160	1.00	U
Dichlorodifluoromethane	0.250	1.00	U
Ethylbenzene	0.100	1.00	U
Hexachlorobutadiene	0.500	1.00	U
Isopropylbenzene	0.160	1.00	U
Methyl tert-butyl ether	0.500	5.00	U
Methylene chloride	0.160	1.00	U
n-Butylbenzene	0.160	1.00	U
n-Propylbenzene	0.100	1.00	U
Naphthalene	0.500	1.00	U
o-Xylene	0.160	1.00	U
p-Isopropyltoluene	0.160	1.00	U
sec-Butylbenzene	0.160	1.00	U
Styrene	0.160	1.00	U
tert-Butylbenzene	0.160	1.00	U
Tetrachloroethene	0.100	1.00	U
Toluene	0.100	1.00	U
trans-1,2-Dichloroethene	0.160	1.00	U
trans-1,3-Dichloropropene	0.250	1.00	U
Trichloroethene	0.100	1.00	U
Trichlorofluoromethane	0.100	1.00	U
Vinyl chloride	0.500	1.00	U
Xylenes (total)	0.260	2.00	U

Surrogate	Recovery	Control Limits Qualifier
1,2-Dichloroethane-d4	117	72 - 119
4-Bromofluorobenzene	102	76 - 119
Toluene-d8	106	81 - 120

Com	me	nts:
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Analytical Method:

SW8260B

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

μg/L

Method Blank ID:

MB-13111

Initial Calibration ID:

<u>1212</u>

File ID:

M4742.D

Internal Sid	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1630799	992054 - 3968218	
Chlorobenzene-d5	2782371	1470392 - 5881570	
Fluorobenzene	5556240	2867034 - 11468136	

Comments:		
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Analytical Method:

SW8260B

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13058

Initial Calibration ID:

<u>1204</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

T1979.D

Analyte	Expected	Found	%R	Control Limits	Q
(m+p)-Xylene	20	20.6	103	76 - 128	
1,1,1,2-Tetrachloroethane	10	9.53	95	81 - 129	
1,1,1-Trichloroethane	10	9.81	98	67 - 132	
1,1,2,2-Tetrachloroethane	10	8.26	83	63 - 128	
1,1,2-Trichloroethane	10	9.88	99	75 - 125	
1,1-Dichloroethane	10	9.32	93	69 - 133	İ .
1,1-Dichloroethene	10	10.3	103	68 - 130	
1,1-Dichloropropene	10	9.05	90	73 - 132	·
1,2,3-Trichlorobenzene	10	7.91	79	67 - 137	
1,2,3-Trichloropropane	10	8.83	88	73 - 124	· ·
1,2,4-Trichlorobenzene	10	8.62	86	66 - 134	
1,2,4-Trimethylbenzene	10	8.42	84	74 - 132	
1,2-Dibromo-3-chloropropane	10	7.92	79	50 - 132	
1,2-Dibromoethane	10	10.5	105	80 - 121	İ
1,2-Dichlorobenzene	10	9.52	95	71 - 122	:
1,2-Dichloroethane	10	9.89	99	69 - 132	i
1,2-Dichloropropane	10	9.05	90	75 - 125	
1,3,5-Trimethylbenzene	10	9.46	95	74 - 131	:
1,3-Dichlorobenzene	10	9.47	95	75 - 124	
1,3-Dichloropropane	10	9.44	94	73 - 126	:
1,4-Dichlorobenzene	10	9.20	92	74 - 123	•
1-Chlorohexane	10	8.87	89	70 - 125	
2,2-Dichloropropane	10	8.96	90	69 - 137	
2-Butanone	20	13.6	68	49 - 136	
2-Chlorotoluene	10	9.06	91	73 - 126	
4-Chlorotoluene	10	9.16	92	74 - 128	
4-Methyl-2-pentanone	20	14.4	72	58 - 134	
Acetone	20	12.5	63	40 - 135	
Benzene	10	9.62	96	81 - 122	
Bromobenzene	10	9.26	93	76 - 124	
Bromochloromethane	10	9.97	100	65 - 129	
Bromodichloromethane	10	9.55	96	76 - 121	
Bromoform	10	9.31	93	69 - 128	
Bromomethane	10	9.32	93	30 - 141	
Carbon tetrachloride	10	9.63	96	66 - 138	
Chlorobenzene	10	9.95	100	81 - 122	
Chloroethane	10	9.66	97	58 - 133	
Chloroform	10	9.91	99	69 - 128	
Chloromethane	10	8.57	86	56 - 131	-
cis-1,2-Dichloroethene	10	10.1	101	72 - 126	
cis-1,3-Dichloropropene				69 - 131	
or 110 Promorobiobene	10	8.64	86	09-101	

Comm	ents:
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Analytical Method:

SW8260B

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13058

Initial Calibration ID:

1204

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

T1979.D

Analyte	Expected	Found	%R	Control Limits	Q
Dibromomethane	10	10.2	102	76 - 125	
Dichlorodifluoromethane	10	9.92	99	30 - 153	
Ethylbenzene	10	9.95	100	73 - 127	
Hexachlorobutadiene	10	9.00	90	67 - 131	1
Isopropylbenzene	10	9.02	90	75 - 127	
Methyl tert-butyl ether	10	10.4	104	65 - 123	
Methylene chloride	10	8.88	89	63 - 137	İ
n-Butylbenzene	10	7.90	79	69 - 137	
n-Propylbenzene	10	9.26	93	72 - 129	
Naphthalene	10	8.52	85	54 - 138	
o-Xylene	10	10.4	104	80 - 121	
p-Isopropyltoluene	10	8.53	85	73 - 130	
sec-Butylbenzene	10	8.77	88	72 - 127	
Styrene	10	8.72	87	65 - 134	
tert-Butylbenzene	10	8.98	90	70 - 129	
Tetrachloroethene	10	9.62	96	66 - 128	
Toluene	10	9.81	98	77 - 122	
trans-1,2-Dichloroethene	10	9.82	98	63 - 137	
trans-1,3-Dichloropropene	10	8.77	88	59 - 135	
Trichloroethene	10	10.4	104	70 - 127	
Trichlorofluoromethane	10	10.0	100	57 - 129	
Vinyl chloride	10	9.27	93	50 - 134	1
Xylenes (total)	30	31.1	104	80 - 121	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	97	76 - 119	
Toluene-d8	103	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	736770	306228 - 1224912	and the second s
Chlorobenzene-d5	808539	370666 - 1482666	
Fluorobenzene	1847014	849584 - 3398336	

Comments:			
		 	

Analytical Method:

SW8260B

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13066

Initial Calibration ID:

<u>1204</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

T1983.D

Analyte	Expected	Found	%R (Control Limits	q
(m+p)-Xylene	20	19.2	96	76 - 128	
1,1,1,2-Tetrachloroethane	10	9.35	94	81 - 129	
1,1,1-Trichloroethane	10	9.34	93	67 - 132	
1,1,2,2-Tetrachloroethaпe	10	8.21	82	63 - 128	
1,1,2-Trichloroethane	10	9.57	96	75 - 125	
1,1-Dichloroethane	10	8.69	87	69 - 133	
1,1-Dichloroethene	10	9.48	95	68 - 130	
1,1-Dichloropropene	10	8.47	85	73 - 132	
1,2,3-Trichlorobenzeпе	10	7.76	78	67 - 137	
1,2,3-Trichloropropane	10	8.22	82	73 - 124	
1,2,4-Trichlorobenzene	10	8.34	83	66 - 134	
1,2,4-Trimethylbenzene	10	7.81	78	74 - 132	
1,2-Dibromo-3-chloropropane	10	7.92	79	50 - 132	
1,2-Dibromoethane	10	9.71	97	80 - 121	
1,2-Dichlorobenzene	10	8.87	89	71 - 122	
1,2-Dichloroethane	10	9.66	97	69 - 132	
1,2-Dichloropropane	10	8.43	84	75 - 125	
1,3,5-Trimethylbenzene	10	8.76	88	74 - 131	
1,3-Dichlorobenzene	10	8.80	88	75 - 124	
1,3-Dichloropropane	10	8.81	88	73 - 126	
1,4-Dichlorobenzene	10	8.61	86	74 - 123	
1-Chlorohexane	10	8.34	83	70 - 125	
2,2-Dichloropropane	10	9.90	99	69 - 137	
2-Butanone	20	16.0	80	49 - 136	
2-Chlorotoluene	10	8.29	83	73 - 126	
4-Chlorotoluene	10	8.49	85	74 - 128	
4-Methyl-2-pentanone	20	17.7	88	58 - 134	
Acetone	20	15.4	77	40 - 135	
Benzene	10	8.93	89	81 - 122	
Bromobenzene	10	8.69	87	76 - 124	
Bromochloromethane	10	9.56	96	65 - 129	
Bromodichloromethane	10	9.27	93	76 - 121	
Bromoform	10	9.55	96	69 - 128	
Bromomethane	10	9.61	96	30 - 141	
Carbon tetrachloride	10	9.37	94	66 - 138	
Chlorobenzene	10	9.17	92	81 - 122	-
Chloroethane	10	9.15	92	58 - 133	
Chloroform	10	9.34	93	69 - 128	
Chloromethane	10	8.28	83	56 - 131	
cis-1,2-Dichloroethene	10	9.47	95	72 - 126	
cis-1,3-Dichloropropene	10	8.43	84	69 - 131	
Dibromochloromethane	10	9.18	92	66 - 133	

Analytical Method:

SW8260B

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13066

Initial Calibration ID:

<u>1204</u>

Concentration Units (mg/L or mg/kg):

<u>ид/L</u>

File ID:

T1983.D

Analyte	Expected	Found	%R	Control Limits	Q
Dibromomethane	10	9.72	97	76 - 125	
Dichlorodifluoromethane	10	10.0	100	30 - 153	
Ethylbenzene	10	9.16	92	73 - 127	
Hexachlorobutadiene	10	8.77	88	67 - 131	
Isopropylbenzene	10	8.18	82	75 - 127	
Methyl tert-butyl ether	10	10.1	101	65 - 123	
Methylene chloride	10	8.36	84	63 - 137	
n-Butylbenzene	10	7.52	75	69 - 137	
n-Propylbenzene	10	8.51	85	72 - 129	
Naphthalene	10	8.33	83.	54 - 138	
o-Xylene	10	9.77	98	80 - 121	
p-Isopropyltoluene	10	7.97	80	73 - 130	
sec-Butylbenzene	10	8.00	80	72 - 127	
Styrene	10	8.07	81	65 - 134	-
tert-Butylbenzene	10	8.19	82	70 - 129	
Tetrachloroethene	10	8.96	90	66 - 128	
Toluene	10	9.03	90	77 - 122	
trans-1,2-Dichloroethene	10	9.29	93	63 - 137	
trans-1,3-Dichloropropene	10	8.75	88	59 - 135	
Trichloroethene	10	9.26	93	70 - 127	
Trichlorofluoromethane	10	10.1	101	57 - 129	
Vinyl chloride	10	9.12	91	50 - 134	
Xylenes (total)	30	29.0	97	80 - 121	

. Surrogate	Recovery	Control Limits Qualific	3 F
1,2-Dichloroethane-d4	104	72 - 119	
4-Bromofluorobenzene	97	76 - 119	
Toluene-d8	101	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	765993	306228 - 1224912	
Chlorobenzene-d5	829926	370666 - 1482666	
Fluorobenzene	1869607	849584 - 3398336	

Comments:				
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Analytical Method:

SW8260B

AAB#:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCSD-13066

Initial Calibration ID:

<u>1204</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

T1984.D

Page 7 of 8

ENVIRONMENTAL HERBITATION OF THE PROPERTY OF T			X323437790000000000000000000000000000000000		FB 2-3-F-3-F-3-F-30000000000000000000000000
Analyte		Found	%R	Control Limits	Q
(m+p)-Xylene	20	20.9	104	76 - 128	
1,1,1,2-Tetrachloroethane	10	10.0	101	81 - 129	
1,1,1-Trichloroethane	10	10.2	102	67 - 132	
1,1,2,2-Tetrachloroethane	10	9.14	91	63 - 128	
1,1,2-Trichloroethane	10	10.1	101	75 - 125	
1,1-Dichloroethane	10	9.38	94	69 - 133	
1,1-Dichloroethene	10	10.2	102	68 - 130	
1,1-Dichloropropene	10	9.29	93	73 - 132	
1,2,3-Trichlorobenzene	10	8.59	86	67 - 137	
1,2,3-Trichloropropane	10	9.27	93	73 - 124	
1,2,4-Trichlorobenzene	10	9.19	92	66 - 134	
1,2,4-Trimethylbenzene	10	8.62	86	74 - 132	
1,2-Dibromo-3-chloropropane	10	9.05	90	50 - 132	
1,2-Dibromoethane	10	10.6	106	80 - 121	
1,2-Dichlorobenzene	10	9.85	98	71 - 122	
1,2-Dichloroethane	10	10.6	106	69 - 132	
1,2-Dichloropropane	10	9.18	92	75 - 125	
1,3,5-Trimethylbenzene	10	9.72	97	74 - 131	-
1,3-Dichlorobenzene	10	9.81	98	75 - 124	
1,3-Dichloropropane	10	9.63	96	73 - 126	
1,4-Dichlorobenzene	10	9.56	96	74 - 123	
1-Chlorohexane	10	8.98	90	70 - 125	
2,2-Dichloropropane	10	10.6	106	69 - 137	
2-Butanone	20	16.2	81	49 - 136	
2-Chlorotoluene	10	9.18	92	73 - 126	
4-Chlorotoluene	10	9.46	95	74 - 128	
4-Methyl-2-pentanone	20	17.4	87	58 - 134	
Acetone	20	15.0	75	40 - 135	
Benzene	10	9.56	96	81 - 122	
Bromobenzene	10	9.58	96	76 - 124	
Bromochloromethane	10	10.3	103	65 - 129	
Bromodichloromethane	10	10.1	103	76 - 121	
Bromoform	10	10.2	103	69 - 128	
Bromomethane	+-	10.2	101	30 - 141	
Carbon tetrachloride	10	10.1	101	66 - 138	
Chlorobenzene	 				
	10	10.1	101	81 - 122	
Chloroform	10	9.44	94	58 - 133	
Chloropothon	10	10.2	102	69 - 128	
Chloromethane	10	8.38	84	56 - 131	
cis-1,2-Dichloroethene	10	10.1	101	72 - 126	
cis-1,3-Dichloropropene	10	9.08	91	69 - 131	
Dibromochloromethane	10	10.1	101	66 - 133	

Comments	:
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QAPP 4.0

AFCEE FORM O-8

Analytical Method:

SW8260B

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

QAPP 4.0

LCSD-13066

Initial Calibration ID:

1204

Concentration Units (mg/L or mg/kg):

<u>ug/L</u>

File ID:

T1984.D

Page 8 of 8

Analyte	Expected	Found	%R	Control Limits	C
Dibromomethane	10	10.5	105	76 - 125	
Dichlorodifluoromethane	10	10.0	100	30 - 153	
Ethylbenzene	10	9.97	100	73 - 127	
Hexachlorobutadiene	10	9.43	94	67 - 131	
Isopropylbenzene	10	9.05	90	75 - 127	
Methyl tert-butyl ether	10	10.9	109	65 - 123	
Methylene chloride	10	9.01	90	63 - 137	
n-Butylbenzene	10	8.34	83	69 - 137	
n-Propylbenzeпе	10	9.42	94	72 - 129	
Naphthalene	10	9.37	94	54 - 138	
o-Xylene	10	10.6	106	80 - 121	
p-Isopropyltoluene	10	8.78	88	73 - 130	
sec-Butylbenzene	10	8.88	89	72 - 127	
Styrene	10	8.75	88	65 - 134	
tert-Butylbenzene	10	9.08	91	70 - 129	
Tetrachloroethene	10	9.52	95	66 - 128	
Toluene	10	9.90	99	77 - 122	
trans-1,2-Dichloroethene	10	9.85	98	63 - 137	
trans-1,3-Dichloropropene	10	9.50	95	59 - 135	
Trichloroethene	10	10.0	100	70 - 127	
Trichlorofluoromethane	10	10.4	104	57 - 129	
Vinyl chloride	10	9.28	93	50 - 134	
Xylenes (total)	30	31.5	105	80 - 121	

Surrogate	Recovery	Control Limits Qualifier
1,2-Dichloroethane-d4	104	72 - 119
4-Bromofluorobenzene	98	76 - 119
Toluene-d8	101	81 - 120

Internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	723124	306228 - 1224912
Chlorobenzene-d5	788575	370666 - 1482666
Fluorobenzene	1780485	849584 - 3398336

Comments:	

AFCEE FORM O-8

Analytical Method:

SW8260B

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13111

Initial Calibration ID:

<u>1212</u>

Concentration Units (mg/L or mg/kg):

µg/L

File ID:

M4725.D

Analyte	Expected	Found	%R	Control Limits	Q
(m+p)-Xylene	20	21.4	107	76 - 128	
1,1,1,2-Tetrachloroethane	10	11.0	110	81 - 129	
1,1,1-Trichloroethane	10	10.4	104	67 - 132	
1,1,2,2-Tetrachloroethane	10	11.1	111	63 - 128	
1,1,2-Trichloroethane	10	11.6	116	75 - 125	
1,1-Dichloroethane	10	10.9	109	69 - 133	
1,1-Dichloroethene	10	11.9	119	68 - 130	
1,1-Dichloropropene	10	10.7	107	73 - 132	
1,2,3-Trichlorobenzene	10	10.2	102	67 - 137	
1,2,3-Trichloropropane	10	9.66	97	73 - 124	
1,2,4-Trichlorobenzene	10	10.3	103	66 - 134	<u> </u>
1,2,4-Trimethylbenzene	10	9.80	98	74 - 132	
1,2-Dibromo-3-chloropropane	10	10.9	109	50 - 132	
1,2-Dibromoethane	10	11.6	116	80 - 121	İ .
1,2-Dichlorobenzene	10	10.8	108	71 - 122	
1,2-Dichloroethane	10	11.1	111	69 - 132	
1,2-Dichloropropane	10	11.2	112	75 - 125	
1,3,5-Trimethylbenzene	10	10.2	102	74 - 131	
1,3-Dichlorobenzene	10	11.2	112	75 - 124	
1,3-Dichloropropane	10	11.5	115	73 - 126	<u> </u>
1,4-Dichlorobenzene	10	10.8	108	74 - 123	
1-Chlorohexane	10	10.6	106	70 - 125	!
2,2-Dichloropropane	10	10.3	103	69 - 137	·
2-Butanone	20	17.9	89	49 - 136	
2-Chlorotoluene	10	11.1	111	73 - 126	
4-Chlorotoluene	10	11.0	110	74 - 128	
4-Methyl-2-pentanone	20	22.4	112	58 - 134	
Acetone	20	17.5	87	40 - 135	
Benzene	10	11.1	111	81 - 122	
Bromobenzene	10	10.7	107	76 - 124	
Bromochloromethane	10	11.0	110	65 - 129	
Bromodichloromethane	10	11.7	117	76 - 121	
Bromoform	10	10.4	104	69 - 128	
Bromomethane	10	9.45	94	30 - 141	1
Carbon tetrachloride	10	10.2	102	66 - 138	
Chlorobenzene	10	11.3	113	81 - 122	
Chloroethane	10	11.1	111	58 - 133	
Chloroform	10	10.7	107	69 - 128	
Chloromethane	10	10.9	109	56 - 131	
cis-1,2-Dichloroethene	10	11.9	119	72 - 126	
cis-1,3-Dichloropropene	10	11.5	115	69 - 131	
Dibromochloromethane	10	11.7	117	66 - 133	

Analytical Method:

<u>\$W8260B</u>

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13111

Initial Calibration ID:

<u>1212</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

M4725.D

Analyte	Expected	Found	%R	Control Limits	Q
Dibromomethane	10	11.3	113	76 - 125	
Dichlorodifluoromethane	10	10.8	108	30 - 153	
Ethylbenzene	10	11.6	116	73 - 127	
Hexachlorobutadiene	10	12.0	120	67 - 131	
Isopropylbenzene	10	11.0	110	75 - 127	
Methyl tert-butyl ether	10	10.8	108	65 - 123	
Methylene chloride	10	10.4	104	63 - 137	
п-Butylbenzene	10	9.80	98	69 - 137	
п-Propylbenzene	10	11.3	113	72 - 129	
Naphthalene	10	12.9	129	54 - 138	
o-Xylene	10	10.7	107	80 - 121	
p-Isopropyltoluene	10	9.86	99	73 - 130	
sec-Butylbenzene	10	10.3	103	72 - 127	
Styrene	10	9.86	99	65 - 134	
tert-Butylbenzene	10	10.4	104	70 - 129	
Tetrachloroethene	10	11.5	115	66 - 128	
Toluene	10	11.4	114	77 - 122	
trans-1,2-Dichloroethene	10	10.6	106	63 - 137	†
trans-1,3-Dichloropropene	10	10.4	104	59 - 135	
Trichloroethene	10	11.3	113	70 - 127	İ
Trichlorofluoromethane	10	10.8	108	57 - 129	
Vinyl chloride	10	10.6	106	50 - 134	
Xylenes (total)	30	32.1	107	80 - 121	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	107	72 - 119	
4-Bromofluorobenzene	111	76 - 119	
Toluene-d8	110	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1849984	992054 - 3968218	
Chlorobenzene-d5	2674535	1470392 - 5881570	
Fluorobenzene	5349304	2867034 - 11468136	

Comments:	

AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

<u>ug/L</u>

% Solids:

Q

Parent Field Sample ID:

TF3M12313SA

MS ID: 0803106-005AMS

MSD ID: 0803106-005AMSD

Calibration ID: 1212

	Parent		Spiked		Duplicate			Control	Control	
Analyte	Sample	Spike	Sample	%R	Spiked	%R	%RPD	Limits	Limits	Q
	Result	Added	Result	(20)	Sample Result			%R	%RPD	
(m+p)-Xylene		40.0	41.6	104	43.2	108	4	76 - 12 8	20	
1,1,2-Tetrachloroethane		20.0	21.3	107	22.2	111	4	81 - 129	20	<u> </u>
1,1,1-Trichloroethane		20.0	19.3	97	19.9	100	3	67 - 132	20	
1,1,2,2-Tetrachloroethane		20.0	21.4	107	22.9	115	7	63 - 128	20	
1,1,2-Trichloroethane		20.0	23.8	119	24.2	121	2	75 - 125	20	
1,1-Dichloroethane		20.0	22.2	111	23.0	115	4	69 - 133	20	
1,1-Dichloroethene		20.0	23.5	118	24.9	124	6	68 - 130	20	
1,1-Dichloropropene		20.0	19.6	98	20.2	101	3	73 - 132	20	
1,2,3-Trichlorobenzene		20.0	20.1	101	20.1	101	Ö	67 - 137	20	
1,2,3-Trichloropropane		20.0	18.8	94	17.5	87	7	73 - 124	20	
1,2,4-Trichlorobenzene		20.0	20.3	102	21.3	106	5	66 - 134	20	
1,2,4-Trimethylbenzene	11.4	20.0	31.2	99	32.6	106	4	74 - 132	20	
1,2-Dibromo-3-chloropropane		20.0	21.4	107	22.6	113	5	50 - 132	20	
1,2-Dibromoethane		20.0	21.9	110	22.5	112	2	80 - 121	20	
1,2-Dichlorobenzene		20.0	21.1	106	22.2	111	5	71 - 122	20	
1,2-Dichloroethane	" "	20.0	21.5	108	22.4	112	4	69 - 132	20	
1,2-Dichloropropane		20.0	21.6	108	22.5	113	4	75 - 125	20	
1,3,5-Trimethylbenzene	2.94	20.0	26.2	116	27.2	121	4	74 - 131	20	
1,3-Dichlorobenzene		20.0	21.8	109	23.0	115	5	75 - 124	20	
1,3-Dichloropropane	-	20.0	21.4	107	22.0	110	3	73 - 126	20	
1,4-Dichlorobenzene		20.0	21.2	106	22.2	111	5	74 - 123	20	
1-Chlorohexane		20.0	20.2	101	20.2	101	0	70 - 125	20	
2,2-Dichloropropane		20.0	20.0	100	20.5	103	2	69 - 1 37	20	
2-Butanone		40.0	86.9	217	96.0	240	10	49 - 136	20	*
2-Chlorotoluene		20.0	20.6	103	23.3	116	12	73 - 126	20	
4-Chlorotoluene		20.0	23.2	116	22.9	115	1	74 - 128	20	
4-Methyl-2-pentanone		40.0	61.7	154	62.5	156	1	58 - 134	20	*
Acetone		40.0	90.1	225	88.7	222	2	40 - 135	20	*
Benzene		20.0	22.1	111	23.0	115	4	81 - 122	20	
Bromobenzene		20.0	20.3	102	21.4	107	5	76 - 124	20	
Bromochloromethane		20.0	20.5	103	21.2	106	3	65 - 129	20	
Bromodichloromethane		20.0	21.3	106	22.0	110	4	76 - 12 1	20	
Bromoform		20.0	18.8	94	19.5	98	4	69 - 128	20	

AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB #:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

µg/L

% Solids:

<u>o</u>

Parent Field Sample ID:

TF3M12313SA

MS ID: 0803106-005AMS

MSD ID: 0803106-005AMSD

Calibration ID: 1212

Analyte	Parent Sample	en.	Spiked	%R	Duplicate Splked	%R	%RPD	Control Limits	Control Limits	a
	Result	Spike Added	Sample Result	/6FX	Sample	/erc	ARFD	%R	%RPD	7
					Result		100117400000000000000000000000000000000			
Bromomethane		20.0	16.9	84	16.4	82	3	30 - 141	20	
Carbon tetrachloride		20.0	19.5	98	20.1	101	3	66 - 138	20	
Chlorobenzene		20.0	21.4	107	22.0	110	3	81 - 122	20	
Chloroethane		20.0	17.8	89	17.3	86	3	58 - 133	20	
Chloroform		20.0	21.2	106	22.1	111	4	69 - 128	20	
Chloromethane		20.0	20.6	103	19.4	97	6	56 - 131	20	
cis-1,2-Dichloroethene		20.0	23.2	116	23.9	119	3	72 - 126	20	
cis-1,3-Dichloropropene		20.0	22.3	111	22.2	111	0	69 - 131	20	
Dibromochloromethane		20.0	22.1	110	22.2	111	1	66 - 133	20	
Dibromomethane		20.0	20.1	100	20.6	103	3	76 - 125	20	
Dichlorodifluoromethane		20.0	20.4	102	19.4	97	5	30 - 153	20	
Ethylbenzene		20.0	22.5	113	23.5	118	4	73 - 127	20	
Hexachlorobutadiene		20.0	22.2	111	22.8	114	3	67 - 131	20	
Isopropylbenzene	63.9	20.0	84.7	104	85.0	106	0	75 - 127	20	
Methyl tert-butyl ether		20.0	22.6	113	23.8	119	5	65 - 123	20	
Methylene chloride		20.0	21.7	108	23.0	115	6	63 - 137	20	
n-Butylbenzene	2.20	20.0	21.0	94	22.5	102	7	69 - 137	20	
n-Propylbenzeпe	7.22	20.0	30.5	117	31.8	123	4	72 - 129	20	
Naphthalene	-	20.0	25.0	125	25.5	128	2	54 - 138	20	
o-Xylene		20.0	20.9	105	21.7	108	4	80 - 121	20	
p-Isopropyltoluene	1.92	20.0	21.4	98	22.1	101	3	73 - 130	20	
sec-Butylbenzene	1.84	20.0	22.2	102	23.0	106	4	72 - 127	20	
Styrene		20.0	19.3	96	19.9	99	3	65 - 134	20	
tert-Butylbenzene		20.0	22.7	113	23.8	119	5	70 - 129	20	
Tetrachloroethene	-	20.0	21.8	109	21.9	109	0	66 - 128	20	
Toluene		20.0	22.7	114	22.6	113	0	77 - 122	20	
trans-1,2-Dichloroethene	_	20.0	20.7	104	20.8	104	0	63 - 137	20	
trans-1,3-Dichloropropene		20.0	20.3	102	20.2	101	1	59 - 135	20	
Trichloroethene		20.0	21.6	108	22.2	111	3	70 - 127	20	
Trichlorofluoromethane		20.0	20.7	104	20.1	101	3	57 - 129	20	
Vinyl chloride		20.0	20.2	101	19.9	100	1	50 - 134	20	
Xylenes (total)	-	60.0	62.5	104	64.9	108	4	80 - 121	20	

Comments:			
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AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

<u>µg/L</u>

% Solids:

<u>0</u>

Parent Field Sample ID:

LCSD-13066

MS ID: LCS-13066

MSD ID: LCSD-13066

Calibration ID: 1204

	Parent Spiked Duplicate				Control	Control	CHECHA			
Analyte	Sample	Spike	Sample	%R	Spiked	%R	%RPD	Limits	Limits	Q
	Result	Added	Result		Sample			%R	%RPD	
			E CONTRACTOR CONTRACTO		Result					
(m+p)-Xylene		20.0	19.2	96	20.9	104	8	76 - 128	20	L
1,1,1,2-Tetrachloroethane		10.0	9.35	94	10.0	101	7	81 - 129	20	
1,1,1-Trichloroethane		10.0	9.34	93	10.2	102	9	67 - 132	20	
1,1,2,2-Tetrachloroethane		10.0	8.21	82	9.14	91	11	63 - 128	20	
1,1,2-Trichloroethane		10.0	9.57	96	10.1	101	5	75 - 125	20	
1,1-Dichloroethane		10.0	8.69	87	9.38	94	8	69 - 133	20	
1,1-Dichloroethene		10.0	9.48	95	10.2	102	8	68 - 130	20	
1,1-Dichloropropene		10.0	8.47	85	9.29	93	9	73 - 132	20	L
1,2,3-Trichlorobenzene		10.0	7.76	78	8.59	86	10	67 - 137	20	
1,2,3-Trichloropropane		10.0	8.22	82	9.27	93	12	73 - 124	20	
1,2,4-Trichlorobenzene		10.0	8.34	83	9,19	92	10	66 - 134	20	
1,2,4-Trimethylbenzene		10.0	7.81	78	8.62	86	10	7 4 - 132	20	
1,2-Dibromo-3-chloropropane		10.0	7.92	79	9.05	90	13	50 - 132	20	
1,2-Dibromoethane		10.0	9.71	97	10.6	106	8	80 - 121	20	
1,2-Dichlorobenzene		10.0	8.87	89	9.85	98	10	71 - 122	20	
1,2-Dichloroethane		10.0	9.66	97	10.6	106	9	69 - 132	20	
1,2-Dichloropropane		10.0	8.43	84	9.18	92	9	75 - 125	20	
1,3,5-Trimethylbenzene		10.0	8.76	88	9.72	97	10	74 - 131	20	
1,3-Dichlorobenzene		10.0	8.80	88	9.81	98	11	75 - 124	20	
1,3-Dichloropropane		10.0	8.81	88	9.63	96	9	73 - 126	20	
1,4-Dichlorobenzene		10.0	8.61	86	9.56	96	10	74 - 123	20	
1-Chlorohexane		10.0	8.34	83	8.98	90	7	70 - 125	20	
2,2-Dichloropropane		10.0	9.90	99	10.6	106	7	69 - 137	20	
2-Butanone		20.0	16.0	80	16.2	81	1	49 - 136	20	
2-Chlorotoluene		10.0	8.29	83	9.18	92	10	73 - 126	20	
4-Chlorotoluene		10.0	8.49	85	9.46	95	11	74 - 128	20	
4-Methyl-2-pentanone		20.0	17.7	88	17.4	87	2	58 - 134	20	
Acetone		20.0	15.4	77	15.0	75	3	40 - 135	20	
Benzene		10.0	8.93	89	9.56	96	7	81 - 122	20	
Bromobenzene		10.0	8.69	87	9.58	96	10	76 - 124	20	[
Bromochloromethane		10.0	9.56	96	10.3	103	8	65 - 129	20	
Bromodichloromethane		10.0	9.27	93	10.1	101	9	76 - 121	20	
Bromoform	<u> </u>	10.0	9.55	96	10.2		7	69 - 128	20	
<u> </u>							* !			

Comments:

AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB #:

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

<u>μg/L</u>

% Solids:

<u>0</u>

Parent Field Sample ID:

LCSD-13066

MS ID: LCS-13066

MSD ID: LCSD-13066

Calibration ID: 1204

Parent			Spiked		Duplicate			Control	Control	
Analyte	Sample	Spike	Sample	%R	Spiked	%R	%RPD	Limits	Limits %RPD	Q
	Result	Added	Result		Sample Result			%R	76RPU	
Bromomethane		10.0	9.61	96		101	5	30 - 141	20	
Carbon tetrachloride		10.0	9.37	94	10.2	102	8	66 - 138	20	
Chlorobenzene		10.0	9.17	92		101	9	81 - 122	20	
Chloroethane		10.0	9.15		l	94	3	58 - 133	20	
Chloroform		10.0	9.34	93		102	8	69 - 128	20	
Chloromethane		10.0	8.28	83		84	1	56 - 131	20	i
cis-1,2-Dichloroethene		10.0	9.47	95		101	6	72 - 126	20	
cis-1,3-Dichloropropene		10.0	8.43	84	<u> </u>	91	7	69 - 131	20	
Dibromochloromethane		10.0	9.18	92	ļ <u>——</u>	101	9	66 - 133	20	
Dibromomethane		10.0	9.72	97	<u> </u>	105	8	76 - 125	20	
Dichlorodifluoromethane		10.0	10.0	100		100	0	30 - 153	20	
Ethylbenzene		10.0	9.16	92	9.97	100	8	73 - 127	20	
Hexachlorobutadiene		10.0	8.77	88	9.43	94	7	67 - 131	20	
Isopropylbenzene		10.0	8.18	82	9.05	90	10	75 - 127	20	
Methyl tert-butyl ether		10.0	10.1	101	10.9	109	7	65 - 123	20	
Methylene chloride		10.0	8.36	84	9.01	90	7	63 - 137	20	
n-Butylbenzene		10.0	7.52	75	8.34	83	10	69 - 137	20	
n-Propylbenzeпе		10.0	8.51	85	9.42	94	10	72 - 129	20	
Naphthalene		10.0	8.33	83	9.37	94	12	54 - 138	20	
o-Xylene		10.0	9.77	98	10.6	106	9	80 - 121	20	
p-Isopropyltoluene		10.0	7.97	80	8.78	88	10	73 - 130	20	
sec-Butylbenzene		10.0	8.00	80	8.88	89	10	72 - 127	20	
Styrene	- "	10.0	8.07	81	8.75	88	8	65 - 134	20	
tert-Butylbenzene		10.0	8.19	82	9.08	91	10	70 - 129	20	
Tetrachioroethene		10.0	8.96	90	9.52	95	6	66 - 128	20	
Toluene		10.0	9.03	90	9.90	99	9	77 - 122	20	
trans-1,2-Dichloroethene		10.0	9.29	93	9.85	98	6	63 - 137	20	
trans-1,3-Dichloropropene		10.0	8.75	88	9.50	95	8	59 - 135	20	:
Trichloroethene		10.0	9.26	93	10.0	100	8	70 - 127	20	İ
Trichlorofluoromethane		10.0	10.1	101	10.4	104	2	57 - 129	20	
Vinyl chloride		10.0	9.12	91	9.28	93	2	50 - 134	20	!
Xylenes (total)		30.0	29.0	97	31.5	105	8	80 - 121	20	

Comments:	

AFCEE ORGANIC ANALYSES DATA SHEET 10 HOLDING TIMES

Analytical Method: SW8260B

AAB#:

R13058

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID	Lab-Sample ID	Date Collected	Date Received	Date Extracted	Max. Holding Time E	Time Held Ext.	Date Analyzed	Max. Holding Time A	Time Held Q Anal,
TF3CE312SA	0803106-001A	20-Mar-08	21-Mar-08	24-Mar-08	4133110101010101010101010101010101010101		24-Mar-08	14	4.2
TF3M2113SA	0803106-002A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.1
TF3M11613SA	0803106-003A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.1
TF3M11710SA	0803106-004A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.1
TF3M12313SC	0803106-006A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.2
TF3M12613SA	0803106-007A	20-Маг-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.3
TF3M12813SA	0803106-009A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.3
TF3M13315SA	0803106-010A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.4
TF3M13315SC	0803106-011A	20-Mar-08	21-Mar-08	24-Mar-08			24-Mar-08	14	4.4

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AFCEE ORGANIC ANALYSES DATA SHEET 10 HOLDING TIMES

Analytical Method: SW8260B

AAB#;

R13066

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID Lab Sample ID	Date Collected	***********************		Max. Time Holding Held Time E Ext.		Max. Holding Time A	Held Q
TF3M12712SA 0803106-008A	20-Mar-08	21-Mar-08	25-Mar-08		25-Mar-08	14	5.2

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AFCEE ORGANIC ANALYSES DATA SHEET 10 HOLDING TIMES

Analytical Method: SW8260B

AAB#:

R13111

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID	Lab Sample ID	Date Collected		Date Hol Extracted Tir	ding Held	*# 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Holding	Time Held Anal,	
TF3M12313SA	0803106-005A	20-Маг-08	21-Mar-08	28-Mar-08	Limentodomate de la constitución	28-Mar-08	14	8.1	
TF3M12313SA	0803106-005AMS	20-Маг-08	21-Mar-08	28-Mar-08	_	28-Mar-08	14	8	
TF3M12313SA	0803106-005AMSD	20-Маг-08	21-Mar-08	28-Mar-08		28-Mar-08	14	8.1	!

Comments:

AFCEE ORGANIC ANALYSES DATA SHEET 11 INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method:

SW8260B

AAB#:

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID #:

MS01_11

Calibration ID: 1204

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Lab Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
TB031808A1	TB031808A1	18-Mar-08	10:30	18-Mar-08	11:33
ICAL 0.5 PPB	ICAL 0.5 PPB	18-Mar-08	11:33	18-Маг-08	12:10
ICAL 1.0 PPB	ICAL 1.0 PPB	18-Mar-08	12:10	18-Mar-08	12:47
ICAL 2.0 PPB	ICAL 2.0 PPB	18-Mar-08	12:47	18-Mar-08	13:24
ICAL 10 PPB	ICAL 10 PPB	18-Mar-08	13:24	18-Mar-08	14:01
ICAL 20 PPB	ICAL 20 PPB	18-Mar-08	14:01	18-Mar-08	14:56
ICAL30 PPB	ICAL30 PPB	18-Mar-08	14:56	18-Mar-08	15:33
ICAL40 PPB	ICAL40 PPB	18-Mar-08	15:33	19-Mar-08	15:08
ICV-13065	ICV-13065	19-Mar-08	15:08	19-Mar-08	15:08
TB032408A1	TB032408A1	24-Mar-08	10:52	24-Mar-08	11:18
CCV-13058	CCV-13058	24-Mar-08	11:18	24-Mar-08	13:05
MB-13058	MB-13058	24-Mar-08	13:05	24-Mar-08	14:16
TF3CE312SA	0803106-001A	24-Mar-08	14:16	24-Mar-08	14:51
TF3M2113SA	0803106-002A	24-Mar-08	14:51	24-Маг-08	15:27
TF3M11613SA	0803106-003A	24-Mar-08	15:27	24-Mar-08	16:02
TF3M11710SA	0803106-004A	24-Mar-08	16:02	24-Mar-08	16:38
TF3M12313SC	0803106-006A	24-Маг-08	16:38	24-Mar-08	17:13
TF3M12613SA	0803106-007A	24-Mar-08	17:13	24-Mar-08	18:24
TF3M12813SA	0803106-009A	24-Mar-08	18:24	24-Mar-08	19:00
TF3M13315SA	0803106-010A	24-Mar-08	19:00	24-Mar-08	19:35
TF3M13315SC	0803106-011A	24-Mar-08	19:35	24-Mar-08	21:57
LCS-13058	LCS-13058	24-Mar-08	21:57	24-Mar-08	21:57
TB032508A1	TB032508A1	25-Маг-08	9:51	25-Mar-08	10:54
CCV-13066	CCV-13066	25-Маг-08	10:54	25-Mar-08	11:37
LCS-13066	LCS-13066	25-Mar-08	11:37	25-Mar-08	12:13
LCSD-13066	LCSD-13066	25-Mar-08	12:13	25-Mar-08	13:24
MB-13066	MB-13066	25-Mar-08	13:24	25-Mar-08	16:23
TF3M12712SA	0803106-008A	25-Mar-08	16:23	25-Mar-08	16:23

Comments:				

AFCEE ORGANIC ANALYSES DATA SHEET 11 INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method:

SW8260B

AAB#:

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID #:

MS02 12

Calibration ID: 1212

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Lab Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
TB032408A2	TB032408A2	24-Mar-08	13:10	24-Mar-08	14:24
ICAL 0.5 PPB	ICAL 0.5 PPB	24-Mar-08	14:24	24-Mar-08	15:03
ICAL 1.0 PPB	ICAL 1.0 PPB	24-Mar-08	15:03	24-Mar-08	15:42
ICAL 2.0 PPB	ICAL 2.0 PPB	24-Mar-08	15:42	24-Mar-08	16:45
ICAL 10 PPB	ICAL 10 PPB	24-Mar-08	16:45	24-Mar-08	17:24
ICAL 20 PPB	ICAL 20 PPB	24-Mar-08	17:24	24-Mar-08	18:02
ICAL 30 PPB	ICAL 30 PPB	24-Mar-08	18:02	24-Mar-08	18:41
ICAL 40 PPB	ICAL 40 PPB	24-Mar-08	18:41	24-Mar-08	20:00
ICV-13052	ICV-13052	24-Mar-08	20:00	24-Mar-08	20:00
TB032808A2	TB032808A2	28-Mar-08	9:20	28-Mar-08	10:06
CCV-13111	CCV-13111	28-Mar-08	10:06	28-Маг-08	11:13
LCS-13111	LCS-13111	28-Mar-08	11:13	28-Маг-08	12:11
TF3M12313SA	0803106-005AMS	28-Mar-08	12:11	28-Mar-08	12:50
TF3M12313SA	0803106-005AMSD	28-Mar-08	12:50	28-Mar-08	14:49
TF3M12313SA	0803106-005A	28-Mar-08	14:49	28-Mar-08	23:22
MB-13111	MB-13111	28-Mar-08	23:22	28-Mar-08	23:22

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB #:

MS01_11_080318A

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS01_11

Injection Date/Time: 3/18/2008 10:30:00 AM

Initial Calibration ID:

<u>1204</u>

File ID:

C:\HPCHEM\1\DATA\T1899.D

Compound:

SW8260B

Sample ID:

TB031808A1

Mass	Ion Abundance Criteria	% Relative Abundance C
50	15 - 40% of m/z 95	21.0
75	30 - 60% of m/z 95	51.9
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	70.2
175	5 - 9% of m/z 174	7.3
176	Greater than 95% but less than 101% of m/z 174	96.5
177	5 - 9% of m/z 176	6.8

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB #:

MS01_11_080324A

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS01_11

Injection Date/Time:

3/24/2008 10:52:00 AM

Initial Calibration ID:

<u>1204</u>

File ID:

C:\HPCHEM\1\DATA\T1960.D

Compound:

SW8260B

Sample ID:

TB032408A1

Mass	Ion Abundance Criteria	% Relative Abundance Q
50	15 - 40% of m/z 95	19.9
75	30 - 60% of m/z 95	51.5
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	75.5
175	5 - 9% of m/z 174	7.4
176	Greater than 95% but less than 101% of m/z 174	96.7
177	5 - 9% of m/z 176	6.7

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB #:

MS01_11_080325B

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS01 11

Injection Date/Time: 3/25/2008 9:51:00 AM

Initial Calibration ID:

<u>1204</u>

File ID:

C:\HPCHEM\1\DATA\T1980.D

Compound:

SW8260B

Sample ID:

TB032508A1

Mass	Ion Abundance Criteria	% Relative Abundance Q
50	15 - 40% of m/z 95	19.8
75	30 - 60% of m/z 95	51.9
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	75.1
175	5 - 9% of m/z 174	7.4
176	Greater than 95% but less than 101% of m/z 174	97.3
177	5 - 9% of m/z 176	6.5

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB #:

MS02 12 080324A

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS02 12

Injection Date/Time: 3/24/2008 1:10:00 PM

Initial Calibration ID:

<u>1212</u>

File ID:

C:\HPCHEM\1\DATA\M4661.D

Compound:

SW8260B

Sample ID:

TB032408A2

		% Relative
Mass	Ion Abundance Criteria	Abundance C
50	15 - 40% of m/z 95	22.2
75	30 - 60% of m/z 95	52.9
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	5.4
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	50.7
175	5 - 9% of m/z 174	6.6
176	Greater than 95% but less than 101% of m/z 174	99.8
177	5 - 9% of m/z 176	5.6

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB#:

MS02 12 080328A

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS02_12

Injection Date/Time:

3/28/2008 9:20:00 AM

Initial Calibration ID:

<u>1212</u>

File ID:

C:\HPCHEM\1\DATA\M4723.D

Compound:

SW8260B

Sample ID:

TB032808A2

		% Relative
Mass	Ion Abundance Griteria	Abundance Q 20.6
50	15 - 40% of m/z 95	_
75	30 - 60% of m/z 95	46.0
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	65.5
175	5 - 9% of m/z 174	7.2
176	Greater than 95% but less than 101% of m/z 174	97.4
177	5 - 9% of m/z 176	6.2



Tuesday, April 29, 2008

Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441

TEL:

Project: GRIFFISS AFB - TF 1 AND 3

RE:

Analytical Result

Order No.: 0804056

Dear Niels van Hoesel:

Life Science Laboratories, Inc. received 2 sample(s) on 4/9/2008 for the analyses presented in the following report.

Very truly yours,

Life Science Laboratories, Inc.

Monika Santucci

Project Manager



Project Management Case Narrative

INTRODUCTION/ANALYTICAL RESULTS

This report summarizes the laboratory results for samples from FPM, for the Griffiss AFB-TF 1 and 3- Rome, NY project.

CONDITION UPON RECEIPT/CHAIN OF CUSTODY

The cooler(s) were received intact. When the cooler(s) were received by the laboratory, the sample custodian(s) opened and inspected the shipment(s) for damage and custody inconsistencies. Chains of custody documenting receipt are presented in the chain of custody section. Each sample was assigned a unique laboratory number and a custody file created. The samples were placed in a secured walk-in cooler and signed in and out by the chemists performing the tests. The sign out record, or lab chronicle, is presented in the chain of custody section.

There were no discrepancies noted upon receipt. The temperatures of the coolers ranged from -1.8°C to 2.4°C.

METHODOLOGY

The following methods were used to perform the analyses:

PARAMETER	METHOD	REFERENCE
Volatile Organics	SW8260B	1

1) <u>Test Methods for Evaluating Solid Wastes</u>, SW-846 Third Edition, Final Update III, December 1996 (including the QC requirements specified in AFCEE 4.0 + variances).

QUALITY CONTROL

QA/QC results are summarized in the Laboratory Report.

RAW DATA

The raw data is not requested for this report. Life Science Laboratories, Inc. will keep the raw data on file.

Total # of pages in this report: _	

GC/MS Volatile Organics Case Narrative

Client:

FPM

Project/Order:

Griffiss AFB-TF 1 and 3

Work Order #: Methodology:

0804056 8260B

Analyzed/Reviewed by (Initials/Date):

and 4/25/08

Supervisor/Reviewed by (Initials/Date):

PT (by sh H | 25/08

QA/QC Review (Initials/Date):

YK 4/25/08

File Name:

G:\Narratives\MSVoa\0804056svnar.doc

GC/MS Volatile Organics

The GC/MS Volatile instruments are equipped with a Restek Rtx-VMS, 40 m x 0.18 mm ID capillary column (MS01 & MS03), Restek Rtx-502.2, 105 m x 0.53 mm ID capillary column (MS02), and Restek Rtx-VMS, 60 m x 0.25mm ID capillary column (MS04), and a Vocarb 3000 adsorbent trap.

There were no excursions to note. All QC results were within established control limits.

Holding Times and Sample Preservation

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements. Samples had a pH of ≤ 2 .

Laboratory Control Sample

All spike recoveries met method and/or project specific QC criteria.

Surrogate Standards

All surrogate standard recoveries met method and/or project specific QC criteria.

Internal Standards

All internal standard areas met method and/or project specific QC criteria.

Calibrations

All initial calibrations and calibration verifications met method and/or project specific QC criteria.

Preparation Blanks

All preparation blanks met method and/or project specific QC criteria.

Miscellaneous

The reporting limits for sample TF3M119R11SA[0804056-001A] were raised due to matrix interference.

Life Science Laboratories, Inc.

Date: 29-Apr-08

CLIENT:

FPM Group

Project:

Griffiss AFB - TF 1 and 3

Lab Order:

0804056

Work Order Sample Summary

Lab Sample ID

Client Sample ID

Tag Number

Collection Date

Date Received

0804056-001A 0804056-002A

TF3M119R11SA TF3M121R11SA WL-TF3MW-119R WL-TF3MW-121R 4/8/2008 4/8/2008 4/9/2008

4/9/2008

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29-Apr-08

Lab Order:	0804056					
Client:	FPM Group				DATES REPORT	
Project:	Griffiss AFB - TF 1 and 3	and 3				
Sample ID	Client Sample ID	Collection Date	Matrix	Matrix Test Name	TCLP Date Prep Date	Analysis Date
0804056-001A	TF3M119R11SA	4/8/2008 1:17:00 PM	Groundwater	Groundwater Volatile Organic Compounds by GC/MS		4/10/2008
0804056-002A	TF3M121R11SA	4/8/2008 1:43:00 PM		Volatile Organic Compounds by GC/MS		4/10/2008



External Chain of Custody

CHAIN OF CUSTODY RECORD AFCEE

COC#: _2_SDG#: _183_ Cooler ID: _A_

Ship to: Monika Santucci	Project Name: Griffiss AFB TF 1 and 3 Sampling	Send Results to: Niels van Hoesel
Life Science Laboratories, Inc.	Sampler Name: David Forse	FPM Group
5000 Brittonfield Pkwy, Suite 200		153 Brooks Road
East Syracuse, NY 13057 Tel: (315)437-0200	100	Rome, NY 13441
	Sampler Signature: / dul / / one	Phone: (315) 336-7721 Ext. 205
	Analyses Requested	ested

	Comments		
	C atol Sulfide Mote T bus OAnX) yeloq so di (HOBN	•	1
	^{1 ooo} (Sittate) nogert 10 oz poly	-	1
	Total Alkalinity ^{noce 3} (see beadspace)	_	•
ested	SAOC ⁸ note 5	-	ı
Analyses Requested	VOC ^{note 1} 40 mL vials (HCI)	3	3
Analy	No. of Containers	ε	3
	Filt./UnFilt.	Unf.	Unf.
	Ртеѕегvаtive	HCl	HCl
	SACODE	z	Z
	SBD/SED	0/0	0/0
	SWCODE	m	В
	XIATAM	ΒM	WG
	Time	1317	1343
	Date 2008	4/8	8/8
	Location ID (LOCID)	TF3M119R11SA WL-TF3MW-119R 4/8 1317	TF3M121R11SA WL-TF3MW-121R 4/8 1343
	Field Sample ID	TF3M119R11SA	TF3M121R11SA

Sample Condition Upon Receipt at Laboratory:	atory:			Cooler T	Cooler Temperature: -ハタ. シ. 41. 4	7- 1- 1- 1-
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0	to be conducted in	compliance with AFCEE QAPP 4.0		•		~
Note 1: VOCs: SW8260, AFCEE QAPP 4.0 List.	1.0 List.				Costactury .	watody acold what
Note 2: SVOCs: SW8270, AFCEE QAPP 4.0 List.	4.0 List.				-	
Note 3: Total Alkalinity, 310.2.						
Note 4: Nitrogen: 353.2, Nitrate: Automated.	ed.					
Note 5: Total Sulfide: 376.2.					1	
					11/4/	//
#1 Released by: (Sig)	Date:	#2 Released by: (STg) ? Lang Phone	Date: 4/8/08	#3 Released by: (Sig)	MIM	Date: 4/9/0}
Company Name:	Time:	Company Name: FPM Group Ltd	Time: 17100	Company Name:	· 757	Time

MATRIX WG = Ground water WQ = Water Quality Control Matrix SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump

SACODE N = Normal Sample AB = Ambient Blank TB = Trip Blank EB = Equipment Blank

Time: 0/250 Date 4/9/10-8

#3 Received by: (Sig) - K

Date 4/08/08

#2 Received by: (Sig)-Company Name:

Date: 2/20/07 Time: 1000

#1 Received by: (Sig) Niels van Hoesel Company Name: FPM Group Ltd

Time:

Company Name:

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: FPM			Date and Ti	me Received:	4.	/9/2008 7:30:00 AM
Work Order Number 0804056			Received by	: kac		
Checklist completed by: L	4-9.	-03	Reviewed	by: MJ		4 9 08
Matrix:	Carrier name:	Hand Delivered				
Shipping container/cooler in good condition?		Yes 🗹	No 🗀	Not Present		
Custody seals intact on shipping container/cooler?	?	Yes 🗹	No 🗌	Not Present		
Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Present	~	
Chain of custody present?		Yes 🗸	No 🗌			
Chain of custody signed when relinquished and re	ceived?	Yes 🗹	No 🗔			
Chain of custody agrees with sample labels?		Yes 🔽	No 🗌			
Samples in proper container/bottle?		Yes 🗹	No 🗌			
Sample containers intact?		Yes 🗹	No 🗌			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌			
All samples received within holding time?		Yes 🔽	No 🗌			
Container/Temp Blank temperature in compliance	?	Yes 🗸	No 🗔			
Water - VOA vials have zero headspace?		Yes 🗸	No 🗌	No VOA vials su	ubmitted	
Water - pH acceptable upon receipt?		Yes 🗍	No.	Not Applicable		

Comments:

Corrective Action::

Client/Project Griffiss TF1 #3 - OSO4050

		Sar	mple Cc	Sample Control Record		
Sample ID	Frac	Frac Client Sample ID	, ID Removed By	Date and Time Removed	Analysis	Date and Time Returned
001.002	¥		A.	4/10/08 15:05	8260	NR
						,
	•	•				5
					•	
			4.			



AFCEE ORGANIC ANALYSES DATA PACKAGE

Analytical Method:

SW8260B

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor:

FPM Group

Field Sample ID	Lab Sample ID
TF3M119R11SA	0804056-001A
TF3M121R11SA	0804056-002A

Comments:			
for complete hardcopy da	data package is in compliance with the terms ness, for other than the conditions detailed ab ta package and in the computer-readable data flanager's designee, as verified by the followin	ove. Releas a submitted o	e of the data contained in this
Signature:	Moriha Linducci	Name:	Monika Santucci
Date:	4/28/08	Title:	Project Manager
4.0	AFCEE FO	RM O-1	Page 1 of 1

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M119R11SA

Lab Sample ID:

0804056-001A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1221

File ID:

M4890.D

Date Received:

QAPP 4.0

Date Analyzed: 10-Apr-08

Field Sample ID:

<u>09-Арг-08</u>

Date Extracted:

Sample Size:

<u>25 mL</u>

Page 1 of 6

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

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.250	5.00	0.250	2.5		U
1,1,1,2-Tetrachloroethane	0.625	1.25	0.625	2.5		U
1,1,1-Trichloroethane	0.400	2.50	0.400	2.5		U
1,1,2,2-Tetrachloroethane	0.400	1.25	0.400	2.5		U
1,1,2-Trichloroethane	0.625	2.50	0.625	2.5		U
1,1-Dichloroethane	0.400	2.50	0.400	2.5		U
1,1-Dichloroethene	0.625	2.50	0.625	2.5		U
1,1-Dichloropropene	0.625	2.50	0.625	2.5		U
1,2,3-Trichlorobenzene	1.25	2.50	1.25	2.5		U
1,2,3-Trichloropropane	2.50	5.00	2.50	2.5		U
1,2,4-Trichlorobenzene	1.25	2.50	1.25	2.5		U
1,2,4-Trimethylbenzene	0.400	2.50	0.400	2.5		U
1,2-Dibromo-3-chloropropane	6.25	12.5	6.25	2.5		U
1,2-Dibromoethane	0.625	2.50	0.625	2.5	-	U
1,2-Dichlorobenzene	0.400	2.50	0.400	2.5		U
1,2-Dichloroethane	0.625	1.25	0.625	2.5		U
1,2-Dichloropropane	0.400	2.50	0.400	2.5		U
1,3,5-Trimethylbenzene	0.400	2.50	0.400	2.5		υ
1,3-Dichlorobenzene	0.400	2.50	0.400	2.5		Ü
1,3-Dichloropropane	0.400	1.25	0.400	2.5		U
1,4-Dichlorobenzene	0.400	1.25	0.400	2.5		U
1-Chlorohexane	0.625	2.50	0.625	2.5		U
2,2-Dichloropropane	1.25	2.50	1.25	2.5	•	U
2-Butanone	6.25	25.0	6.25	2.5		U
2-Chlorotoluene	0.250	2.50	0.250	2.5		U
4-Chlorotoluene	0.250	2.50	0.250	2.5		U
4-Methyl-2-pentanone	2.50	25.0	2.50	2.5		U
Acetone	6.25	25.0	6.25	2.5		U
Benzene	0.400	1.25	0.400	2.5		U
Bromobenzeпе	0.400	2.50	0.400	2.5		U
Bromochloromethane	0.400	2.50	0.400	2.5		U
Bromodichloromethane	0.400	1.25	0.400	2.5		U

Comments:			
	 	 -	

AFCEE FORM O-2

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M119R11SA

Lab Sample ID:

0804056-001A

Matrix:

Groundwater

% Solids:

<u>0</u>

Initial Calibration ID: 1221

File ID:

M4890.D

Date Received:

Date Analyzed: 10-Apr-08

09-Apr-08

Date Extracted:

Sample Size:

25 mL

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

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifi
Bromoform	1.25	2.50	1.25	2.5		U
Bromomethane	0.475	7.50	0.475	2.5		U
Carbon tetrachloride	0.625	2.50	0.625	2.5		U
Chlorobenzene	0.400	1.25	0.400	2.5		U
Chloroethane	1.25	2.50	1.25	2.5		U
Chloroform	0.250	1.25	0.250	2.5		U
Chloromethane	1.25	2.50	1.25	2.5		Ü
cis-1,2-Dichloroethene	0.400	2.50	0.400	2.5		บ
cis-1,3-Dichloropropene	0.625	1.25	0.625	2.5		U
Dibromochloromethane	0.400	1.25	0.400	2.5		U
Dibromomethane	0.400	2.50	0.400	2.5		U
Dichlorodifluoromethane	0.625	2.50	0.625	2.5		U
Ethylbenzene	0.250	2.50	0.250	2.5	•	U
Hexachlorobutadiene	1.25	2.50	1.25	2.5		U
Isopropylbenzene	0.400	2.50	0.400	2.5		U
Methyl tert-butyl ether	1.25	12.5	1.25	2.5	-	U
Methylene chloride	0.400	2.50	0.400	2.5		U
n-Butylbenzene	0.400	2.50	0.400	2.5		U
n-Propylbenzene	0.250	2.50	0.250	2.5		U
Naphthalene	1.25	2.50	1.25	2.5		U
o-Xylene	0.400	2.50	0.400	2.5		U
p-Isopropyltoluene	0.400	2.50	0.400	2.5		U
sec-Butylbenzene	0.400	2.50	0.400	2.5		U
Styrene	0.400	2.50	0.400	2.5		U
tert-Butylbenzene	0.400	2.50	0.400	2.5		U
Tetrachloroethene	0.250	2.50	0.250	2.5		U
Toluene	0.250	2.50	0.250	2.5		Ü
trans-1,2-Dichloroethene	0.400	2.50	0.400	2.5		U
trans-1,3-Dichloropropene	0.625	2.50	0.625	2.5		IJ
Trichloroethene	0.250	2.50	0.250	2.5		U
Trichlorofluoromethane	0.250	2.50	0.250	2.5		U
Vinyl chloride	1.25	2.50	1.25	2.5		U

Comments:	
	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

TF3M119R11SA

Lab Sample ID:

0804056-001A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1221

5.00

File ID:

M4890.D

Date Received:

QAPP 4.0

Date Analyzed:

2.5

10-Apr-08

Xylenes (total)

Field Sample ID:

09-Apr-08

Analyte

Date Extracted:

MDL

0.650

Sample Size:

<u>25 mL</u>

Page 3 of 6

Qualifier

U

Confirm

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

RL	Conce	ntration	Dili	rtion

0.650

Surregate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	110	76 - 119	
Tolueno-d8	115	91 120	

Internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	1542709	811362 - 3245448
Chlorobenzene-d5	2218231	1119858 - 4479430
Fluorobenzene	4291135	1972798 - 7891190

Comments:	

AFCEE FORM O-2

Analytical Method: SW8260B Preparatory Method: AAB #: R13266

Lab Name: Life Science Laboratories, Inc. Contract #:

Field Sample ID: TF3M121R11SA Lab Sample ID: 0804056-002A Matrix: Groundwater

% Solids: 0 Initial Calibration ID: 1221 File ID: M4888.D

Date Received: 09-Apr-08 Date Extracted: Date Analyzed: 10-Apr-08

Concentration Units (ug/L or mg/Kg dry weight): µg/L Sample Size: 25 mL

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
(m+p)-Xylene	0.100	2.00	0.100	1		U
1,1,1,2-Tetrachloroethane	0.250	0.500	0.250	1		U
1,1,1-Trichloroethane	0.160	1.00	0.160	1		U
1,1,2,2-Tetrachloroethane	0.160	0.500	0.160	1		U
1,1,2-Trichloroethane	0.250	1.00	0.250	1		U
1,1-Dichloroethane	0.160	1.00	0.160	1		U
1,1-Dichloroethene	0.250	1.00	0.250	1		U
1,1-Dichloropropene	0.250	1.00	0.250	1		U
1,2,3-Trichlorobenzene	0.500	1.00	0.500	1		U
1,2,3-Trichloropropane	1.00	2.00	1.00	1		U
1,2,4-Trichlorobenzene	0.500	1.00	0.500	1		υ
1,2,4-Trimethylbenzene	0.160	1.00	0.160	1		U
1,2-Dibromo-3-chloropropane	2.50	5.00	2.50	. 1		υ
1,2-Dibromoethane	0.250	1.00	0.250	1		U
1,2-Dichlorobenzene	0.160	1.00	0.160	- 1		U
1,2-Dichloroethane	0.250	0.500	0.250	1	-	. U
1,2-Dichloropropane	0.160	1.00	0.160	1		U
1,3,5-Trimethylbenzene	0.160	1.00	0.160	1		U
1,3-Dichlorobenzene	0.160	1.00	0.160	1		U
1,3-Dichloropropane	0.160	0.500	0.160	1		U
1,4-Dichlorobenzene	0.160	0.500	0.160	1		U
1-Chlorohexane	0.250	1.00	0.250	1		U
2,2-Dichloropropane	0.500	1.00	0.500	1		U
2-Butanone	2.50	10.0	2.50	1		U
2-Chlorotoluene	0.100	1.00	0.100	1		U
4-Chlorotoluene	0.100	1.00	0.100	1		U
4-Methyl-2-pentanone	1.00	10.0	1.00	1		U
Acetone	2.50	10.0	2.50	1		U
Benzene	0.160	0.500	0.160	1		U
Bromobenzene	0.160	1.00	0.160	1		U
Bromochloromethane	0.160	1.00	0.160	1		U
Bromodichloromethane	0.160	0.500	0.160	1		U

Comments:		
QAPP 4.0	AFCEE FORM 0-2	Page 4 of 6

Analytical Method: SW8260B

Preparatory Method:

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID:

TF3M121R11SA

Lab Sample ID:

0804056-002A

Matrix:

Groundwater

% Solids:

0

Initial Calibration ID: 1221

File ID:

M4888.D

Date Received:

09-Apr-08

Date Extracted:

Date Analyzed: 10-Apr-08

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

<u>μg/L</u>

Sample Size:

<u>25 mL</u>

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Bromoform	0.500	1.00	0.500	1		U
Bromomethane	0.190	3.00	0.190	1		U
Carbon tetrachloride	0.250	1.00	0.250	1		U
Chlorobenzene	0.160	0.500	0.160	1		U
Chloroethane	0.500	1.00	0.500	1	•	U
Chloroform	0.100	0.500	0.100	1		U
Chloromethane	0.500	1.00	0.500	1		U
cis-1,2-Dichloroethene	0.160	1.00	0.160	1		U
cis-1,3-Dichloropropene	0.250	0.500	0.250	1		U
Dibromochloromethane	0.160	0.500	0.160	1		U
Dibromomethane	0.160	1.00	0.160	1		U
Dichlorodifluoromethane	0.250	1.00	0.250	1		U
Ethylbenzene	0.100	1.00	0.100	1		U
Hexachlorobutadiene	0.500	1.00	0.500	1		U
Isopropylbenżene	0.160	1.00	0.160	1		U
Methyl tert-butyl ether	0.500	5.00	0.500	1		U
Methylene chloride	0.160	1.00	0.160	1		U
n-Butylbenzene	0.160	1.00	0.160	1		U
n-Propylbenzene	0.100	1.00	0.100	1		U
Naphthalene	0.500	1.00	0.500	1		บ
o-Xylene	0.160	1.00	0.160	1		U
p-Isopropyltoluene	0.160	1.00	0.160	1		U
sec-Butylbenzene	0.160	1.00	0.160	1		U
Styrene	0.160	1.00	0.160	1		U
tert-Butylbenzene	0.160	1.00	0.160	1		U
Tetrachloroethene	0.100	1.00	0.100	1		U
Toluene	0.100	1.00	0.100	1		U
trans-1,2-Dichloroethene	0.160	1.00	0.160	1		υ
trans-1,3-Dichloropropene	0.250	1.00	0.250	1		U
Trichloroethene	0.100	1.00	1.18	1		
Trichlorofluoromethane	0.100	1.00	0.100	1		U
Vinyl chloride	0.500	1.00	0.500	1		U

Comments.		
	<u></u>	

Analytical Method: SW8260B

Preparatory Method:

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Lab Sample ID:

0804056-002A

Matrix:

Groundwater

% Solids:

Field Sample ID:

0

Initial Calibration ID: 1221

M4888.D

File ID:

Date Received:

09-Apr-08

Date Extracted:

Date Analyzed:

10-Apr-08

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

TF3M121R11SA

µg/L

Sample Size:

<u>25 mL</u>

Page 6 of 6

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
Xylenes (total)	0.260	2.00	0.260	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	110	72 - 119	
4-Bromofluorobenzene	113	76 - 119	
Toluene-d8	109	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1462540	811362 - 3245448	
Chlorobenzene-d5	2206059	1119858 - 4479430	
Fluorobenzene	3913963	1972798 - 7891190	

Comments:		
		· · · · · · · · · · · · · · · · · · ·
QAPP 4.0	AFCEÉ FORM O-2	Page 6 of 6

AFCEE FORM 0-2

Quality Control Results

GC/MS Volatile Organics Data

AFCEE ORGANIC ANALYSES DATA SHEET 3 INITIAL MULTIPOINT CALIBRATION-GC/MS ANALYSIS

AAB#: Analytical Method: 8260B Contract #: Lab Name: Life Science Laboratories, Inc. Date of Initial Calibration: 07-APR-08 Instrument ID: HP5970 GCMS#2 Concentration Units (ug/L or mg/kg): ug/L Initial Calibration ID: 1221 SEE ATTACHED Comments:

0.5 1.0 2.0 10 20 30 Avg

: C:\HPCHEM\1\METHODS\M407VOCW.M (RTE Integrator) Method : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Title

Last Update : Tue Apr 08 10:25:42 2008

Response via : Initial Calibration

Calibration Files

Compound

=M4820.D 1.0 =M4824.D 2.0 =M4823.D 20 =M4826.D 30 =M4825.D0.5 =M4827.D10

-----ISTD-----1) I Fluorobenzene Dichlorodifluoromet 0,716 0,754 0.656 0.880 0.921 0.923 0.818 13.18 2) Chloromethane 0.277 0.336 0.284 0.316 0.332 0.326 0.313 3) P 4) CP Vinyl chloride Ha 0.266 0.280 0.250 0.303 0.334 0.335 0.299 Bromomethane (1,747) 189 0.117 0.150 0.208 0.228 0.187 5) 6) Trichlorofluorometh 0.603 0.662 0.569 0.783 0.798 0.795 0.712 7) 0.003 0.004 0.005 0.005 0.005 0.004# (20.58) Acrolein 8) 1,1,2-Trichloro-1,2 0.488 0.565 0.486 0.642 0.633 0.640 0.579 9) 0.032 0.021 0.026 0.025 0.024 0.025# 14.76 10)

11) CPM 1,1-Dichloroethene 0.157 0.181 0.161 0.203 0.206 0.222 0.192 0.072 0.066 0.084 0.080 0.077 0.077

 Methyl acetate
 0.072 0.066 0.084 0.080 0.077 0.077

 Methyl iodide
 0.322 0.221 0.308 0.598 0.628 0.641 0.477

 12) 38<u>.57</u> 13) Methylene chloride 0.384 0.484 0.363 0.298 0.299 0.301 0.346 14) 0.017 0.018 0.022 0.025 0.025 0.022# 15.35 Acrylonitrile 15) Carbon disulfide 0.775 0.857 0.715 0.951 1.044 1.056 0.914 16)

Methyl tert-Butyle e 0.342 0.388 0.362 0.382 0.402 0.398 0.382 5.85 77) trans-1,2-Dichloroe 0.230 0.259 0.231 0.272 0.292 0.291 0.266 3) Vinyl acetate 0.222 0.211 0.257 0.265 0.241 0.239 8.53 19) 1,1-Dichloroethane 0.498 0.548 0.472 0.584 0.606 0.614 0.559 9.89 20) P 9.39 0.038 0.037 0.041 0.046 0.044 0.042# 2-Butanone

21) 2,2-Dichloropropane 0.313 0.382 0.339 0.446 0.450 0.453 0.403 14.46 22) cis-1,2-Dichloroeth 0.277 0.303 0.271 0.326 0.336 0.326 0.309 8.29 23) or . . 0.693 0.712 0.629 0.737 0.771 0.749 0.716 6.40 24) CP 8.09

Bromochloromethane 0.163 0.167 0.157 0.191 0.188 0.188 0.177 25) 16.23 1,1,1-Trichloroetha 0.403 0.469 0.420 0.566 0.589 0.594 0.517 26) Cyclohexane 0.213 0.277 0.259 0.345 0.347 0.350 0.304 27) 1,1-Dichloropropene 0.333 0.370 0.333 0.448 0.455 0.463 0.407 14.5528)

1,2-Dichloroethane- 0.221 0.265 0.239 0.272 0.249 0.236 0.245 29) S Carbon tetrachlorid 0.415 0.485 0,423 0.573 0.592 0.595 0.522 30) 1,2-Dichloroethane 0.245 0.281 0.264 0.330 0.303 0.296 0.288 31)

Benzene 0.718 0.768 0.710 0.871 0.879 0.878 0.812 9.51 32) M Trichloroethene 0.338 0.388 0.350 0.439 0.456 0.460 0.411 12.51 33) M Methylcyclohexane 0.223 0.257 0.241 0.358 0.353 0.363 0.307 20.58 34)

1,2-Dichloropropane 0.305 0.330 0.294 0.343 0.350 0.348 0.331 35) CP Bromodichloromethan 0.619 0.676 0.637 0.788 0.808 0.801 0.732 11.47 36) Dibromomethane Dibromomethane 0.246 0.272 0.260 0.308 0.312 0.304 0.286 9.30 37) 2-Chloroethylvinyl 0.076 0.088 0.083 0.106 0.096 0.093 0.091 10.52 38)

4-Methyl-2-pentanon 0.145 0.155 0.137 0.124 0.137 0.138 39) cis-1,3-Dichloropro 0.306 0.371 0.359 0.460 0.482 0.484 0.421 40)

41) CPM Toluene 0.454 0.490 0.453 0.569 0.590 0.593 0.533 trans-1,3-Dichlorop 0.178 0.229 0.226 0.309 0.325 0.330 0.276 42) 0.070 0.066 0.094 0.093 0.092 0.085 2-Hexanone 3)

(#) = Out of Range ### Number of calibration levels exceeded format ### Number of cali

\$75 #85 F

C. THAT T.

: C:\HPCHEM\1\METHODS\M407VOCW.M (RTE Integrator) Method Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Last Update : Tue Apr 08 10:25:42 2008 Response via : Initial Calibration Calibration Files =M4820.D 1.0 =M4824.D 2.0 =M4825.D =M4823.D 20 =M4826.D 30 =M4827.D 0.5 10 Compound 0.5 1.0 2.0 10 20 30 Avg ___________ 1,1,2-Trichloroetha 0.186 0.209 0.202 0.237 0.237 0.233 0.220 44) Chlorobenzene-d5 45) I 1.309 1.432 1.304 1.501 1.615 1.646 1.490 9.81 46) S Toluene-d8 1,3-Dichloropropane 0.559 0.622 0.582 0.671 0.702 0.708 0.652 9.92 47) Tetrachloroethene 0.735 0.814 0.728 0.881 0.931 0.948 0.853 11.12 48) Dibromochloromethan 0.763 0.881 0.854 1.025 1.086 1.111 0.976 14.55 49) 1,2-Dibromoethane 0.575 0.573 0.562 0.672 0.695 0.709 0.644 50) 1-Chlorohexane 0.448 0.521 0.495 0.631 0.690 0.720 0.601 18.5651) 52) PM Chlorobenzene 1.297 1.334 1.224 1.424 1.382 1.376 1.341 4.89 10.33 1,1,1,2-Tetrachloro 0.603 0.696 0.616 0.762 0.762 0.764 0.710 53) Ethylbenzene 1.744 1.888 1.645 2.077 1.908 1.915 1.865 (m+p)-Xylene 0.558 0.621 0.557 0.747 0.705 0.722 0.662 o-Xylene 0.567 0.603 0.561 0.682 0.741 0.760 0.667 Styrene 0.879 0.968 0.973 1.159 1.213 1.243 1.098 7.36 54) CP 12.29 55) 13.31 56) 14.04 57) Bromoform 0.393 0.416 0.447 0.584 0.608 0.616 0.529 20.03 58) P 1,4-Dichlorobenzene-d ------ISTD------59) I 2.143 2.443 2.293 2.788 2.896 2.855 2.597 11.55 0) Isopropylbenzene 7.65 61) P 1,1,2,2-Tetrachloro 0.824 0.940 0.891 1.047 1.003 0.952 0.944 Bromofluorobenzene 1.615 1.884 1.653 1.778 1.741 1.687 1.714 5.53 62) S 1,2,3-Trichloroprop 0.529 0.479 0.425 0.482 0.508 0.459 0.477 7.23 63) trans-1,4-Dichloron-Propylbenzene
0.021 0.034 0.065 0.065 0.069 0.055
2.404 2.742 2.605 3.367 3.452 3.412 3.043
Bromobenzene
0.847 0.982 0.954 1.054 1.034 1.011 0.983 64) 65) 6.97 66) 1,3,5-Trimethylbenz 1.484 1.512 1.554 1.995 2.075 2.060 1.815 67) 2-Chlorotoluene 2.327 2.441 2.366 2.695 2.775 2.564 2.526 4-Chlorotoluene 2.032 2.359 2.227 2.542 2.467 2.526 2.375 6.56 68) 7.86 69) tert-Butylbenzene 1.488 1.670 1.606 2.069 2.149 2.165 1.894 15.44 70) 1,2,4-Trimethylbenz 1.195 1.317 1.319 1.771 1.871 1.872 1.601 19.23 71) sec-Butylbenzene 1.939 2.293 2.185 2.900 3.032 3.037 2.620 17.74 72) p-Isopropyltoluene 1.399 1.484 1.459 1.997 2.132 2.205 1.833 20.02 73) 1,3-Dichlorobenzene 1.349 1.532 1.437 1.690 1.683 1.681 1.570 74) 1,4-Dichlorobenzene 1.272 1.453 1.290 1.504 1.553 1.520 1.443 7.92 75) n-Butylbenzene 341.0 1.048 1.267 1.220 1.742 1.927 1.952 1.582 76) 1,2-Dichlorobenzene 1.206 1.305 1.243 1.470 1.477 1.459 1.369 8.40 77) 1,2-Dibromo-3 chlor 0.113 0.147 0.143 0.161 0.165 0.164 0.151 12.76 78) 1,2,4-Trichlorobenz 0.410 0.504 0.525 0.684 0.729 0.757 0.624 79) 13.12 Hexachlorobutadiene 0.499 0.576 0.537 0.670 0.694 0.697 0.621 80) Naphthalene 0.293 0.333 0.451 0.510 0.528 0.448 81) 1,2,3-Trichlorobenz 0.286 0.393 0.427 0.532 0.579 0.596 0.489 82)

(#) = Out of Range ### Number of calibration levels exceeded format ###
M407VOCW.M Tue Apr 08 10:26:10 2008

Alage 2

```
Method
                 : C:\HPCHEM\1\METHODS\M407VOCW.M (RTE Integrator)
   Title
                 : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df
   Last Update : Tue Apr 08 10:35:07 2008
   Response via: Initial Calibration
   Calibration Files
   40
          =M4828.D
        Compound
                               40
 1) I
        Fluorobenzene
                               -----ISTD-----
        Dichlorodifluoromet 0,879
 2)
 3) P
        Chloromethane 0.323
 4) CP Vinyl chloride ( ) 18, 0.323
 5)
        Bromomethane 0.231
 6)
        Chloroethane 1997 . 0.181
 7)
        Trichlorofluorometh 0.774
 8)
        Acrolein
 9)
        1,1,2-Trichloro-1,2 0.598
10)
        Acetone
                            0.024 \times
11) CPM 1,1-Dichloroethene 0.210
12)
        Methyl acetate
                            0.082
13)
        Methyl iodide
                            0.623
14)
        Methylene chloride 0.294
15)
        Acrylonitrile
                            0.024
16)
        Carbon disulfide
                            1.001
77)
        Methyl tert-Butyl e 0.397
(ز
        trans-1,2-Dichloroe 0.286
19}
        Vinyl acetate 0.238
20) P
        1,1-Dichloroethane 0.591
        2-Butanone , . . .
21)
                            0.046
22)
        2,2-Dichloropropane 0.437
23)
        cis-1,2-Dichloroeth 0.320
24) CP
        Chloroform
                            0.718
        Bromochloromethane 0.188
25)
26)
        1,1,1-Trichloroetha 0.581
        Cyclohexane
27)
                            0.339
28)
        1,1-Dichloropropene 0.448
29) S
        1,2-Dichloroethane- 0.232
30)
        Carbon tetrachlorid 0.574
31)
        1,2-Dichloroethane 0,294
32) M
       Benzene Property 0.860
33) M
       Trichloroethene 0.445
34)
       Methylcyclohexane 0.354
35) CP
       1,2-Dichloropropage 0.348
36)
       Bromodichloromethan 0.794
       Dibromomethane, n^{(k_0)} 0.303
37)
38)
        2-Chloroethylvinyl
                            0.094
39)
       4-Methyl-2-pentanon 0.131
40)
       cis-1,3-Dichloropro 0.487
41) CPM Toluene
                            0.582
42)
       trans-1,3-Dichlorop 0.335
```

(#) = Out of Range ####Number of calibration levels exceeded format M407VOCW.M Tue Apr 08 10:35:16 2008

2-Hexanone

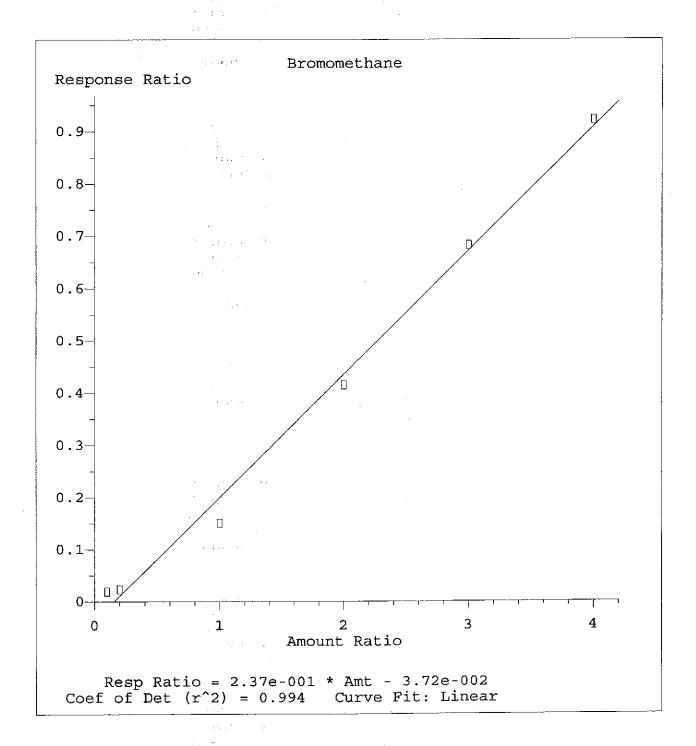
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Response Factor Report #2MS12

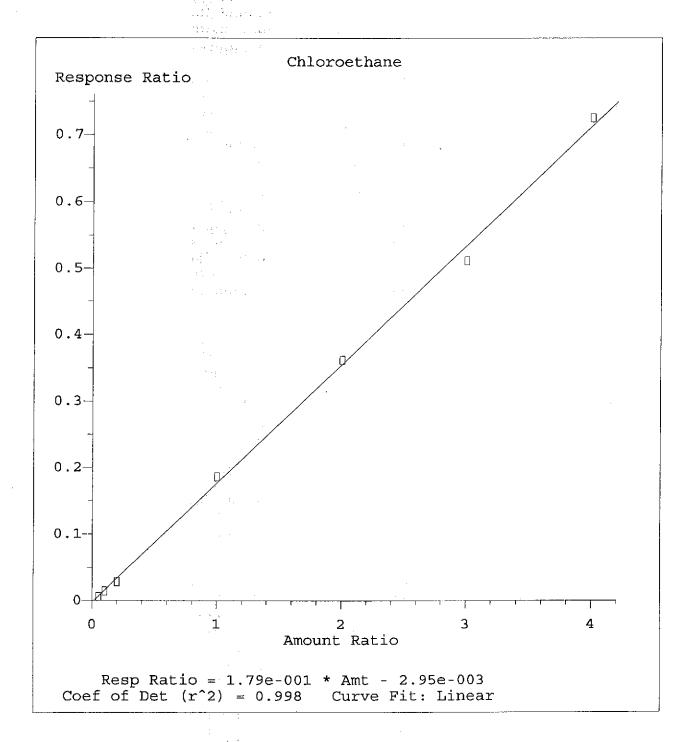
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: C:\HPCHEM\1\METHODS\M407VOCW.M (RTE Integrator)
   Method
   Title
                 : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df
   Last Update : Tue Apr 08 10:35:07 2008 Response via : Initial Calibration
   Calibration Files
          =M4828.D
   40
        Compound
44)
        1,1,2-Trichloroetha 0.233
45) I
        Chlorobenzene-d5
                               46) S
        Toluene-d8
                             1.620
47)
        1,3-Dichloropropage 0.721
48)
        Tetrachloroethene 🦙 0.936
49)
        Dibromochloromethan 1.114
50)
        1,2-Dibromoethane 0.723
51)
        1-Chlorohexane
                             0.705
52) PM
        Chlorobenzene
                             1.353
        1,1,1,2-Tetrachloro 0.768/
53)
54) CP
        Ethylbenzene
55)
        (m+p)-Xylene
                             0.722
56)
        o-Xylene
                             0.754
                             1.254
57)
        Styrene
        Bromoform 0.643
58) P
-9)
        1,4-Dichlorobenzene-d ------ISTD-----
 J)
        Isopropylbenzene
                             2.758
61) P
        1,1,2,2-Tetrachloro 0.947
62) S
        Bromofluorobenzene 1.636
63)
        1,2,3-Trichloroprop 0.457
64)
        trans-1,4-Dichloro- 0.075
65)
        n-Propylbenzene
                            3.321
66)
        Bromobenzene
                            1.001
67)
        1,3,5-Trimethylbenz 2.024
68)
        2-Chlorotoluene
                            2.514
69)
        4-Chlorotoluene
                            2.476
70)
        tert-Butylbenzene
                            2.109
        1,2,4-Trimethylbenz 1.863
71)
72)
        sec-Butylbenzene
                            2.957
73)
        p-Isopropyltoluene
                            2.155
74)
        1,3-Dichlorobenzene 1.621
75)
        1,4-Dichlorobenzene 1.507
76)
        n-Butylbenzenekron, 1.915
77)
        1,2-Dichlorobenzene 1.423
78)
        1,2-Dibromo-3-chlor 0.167
79)
        1,2,4-Trichlorobenz 0.756
80)
        Hexachlorobutadiene 0.670
81)
        Naphthalene
                            0.571
82)
        1,2,3-Trichlorobenz 0.614
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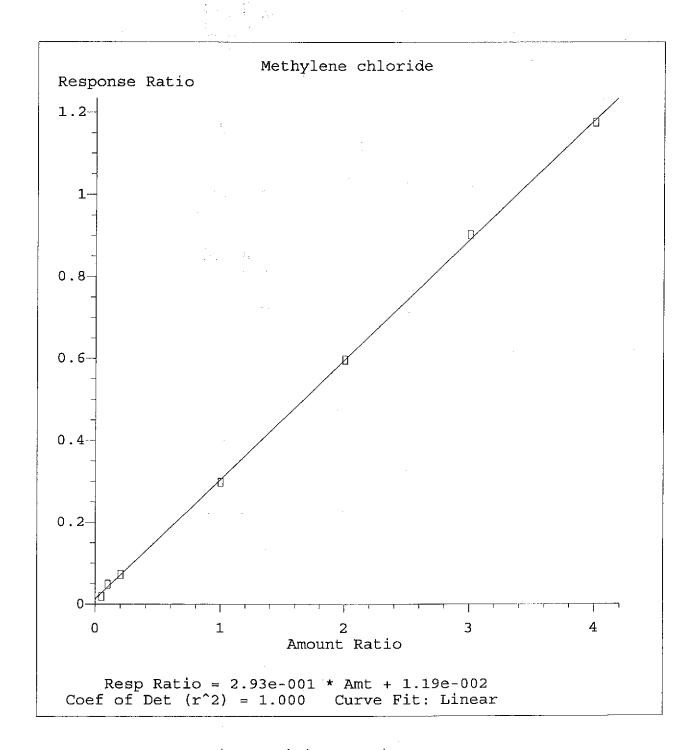
Armer V

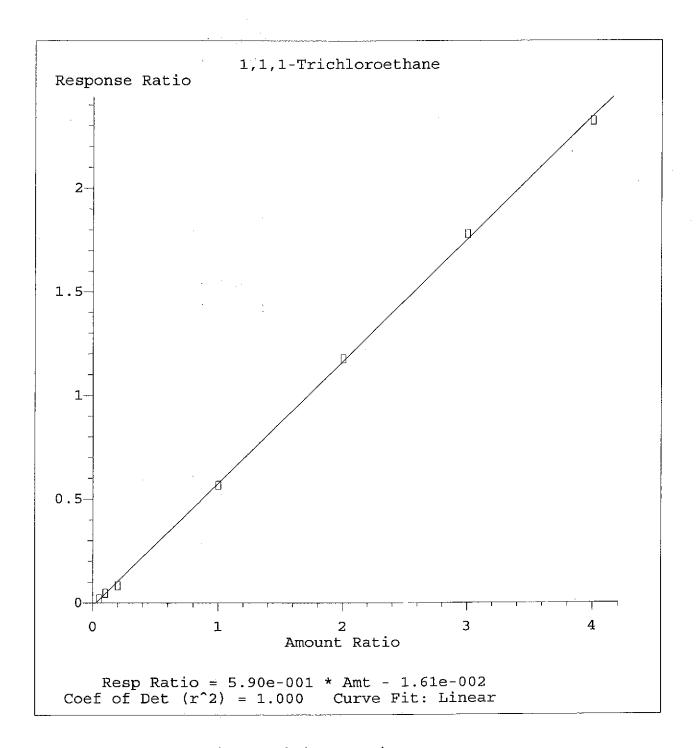
The Assessment

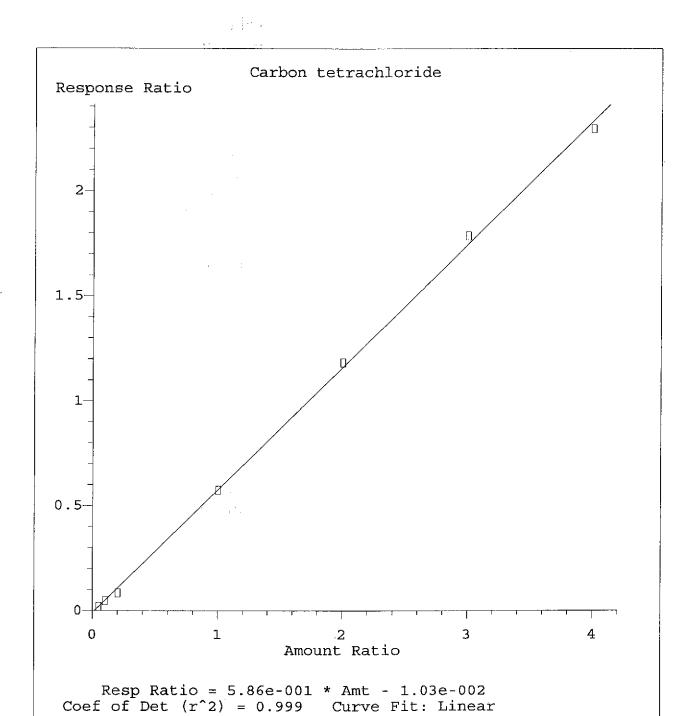


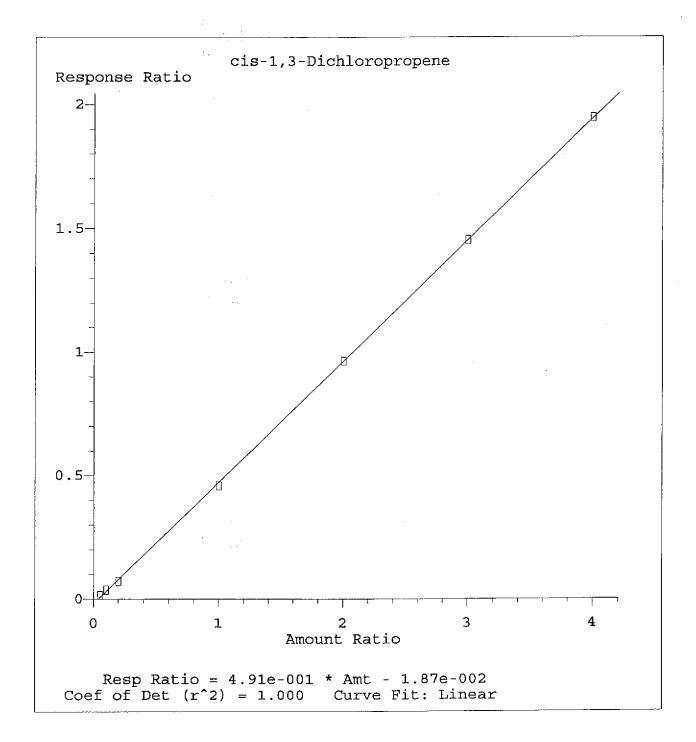
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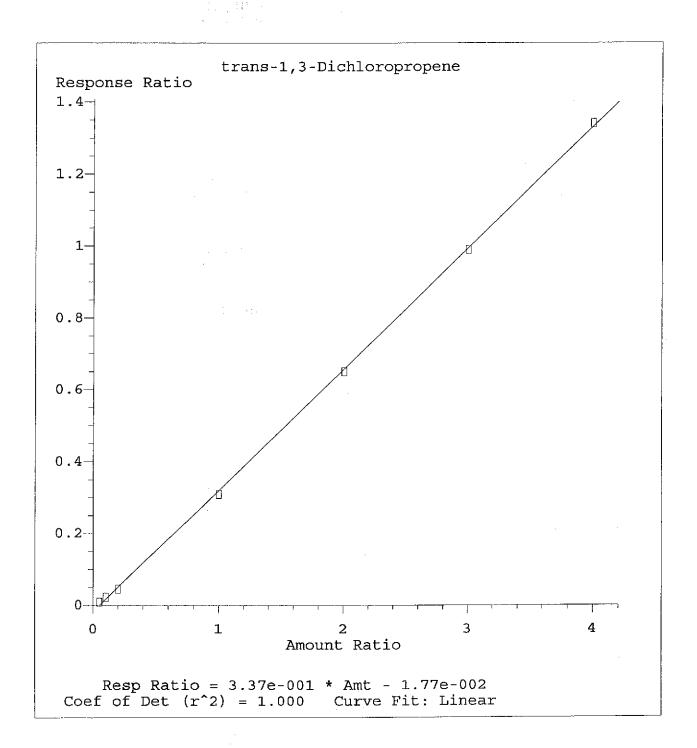


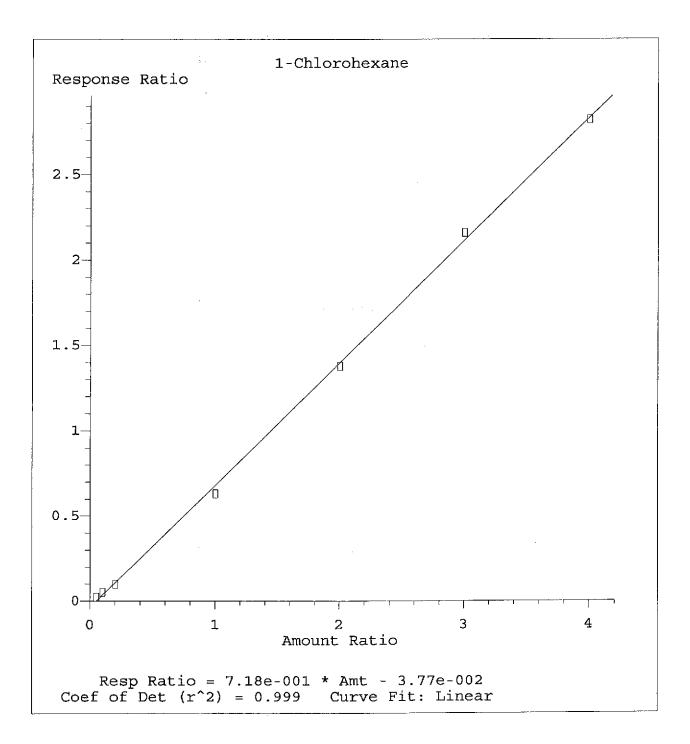


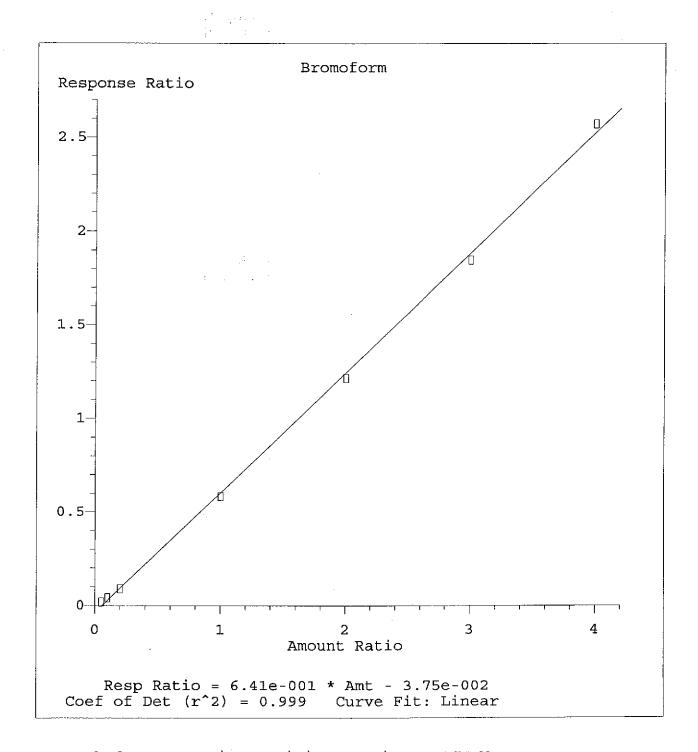


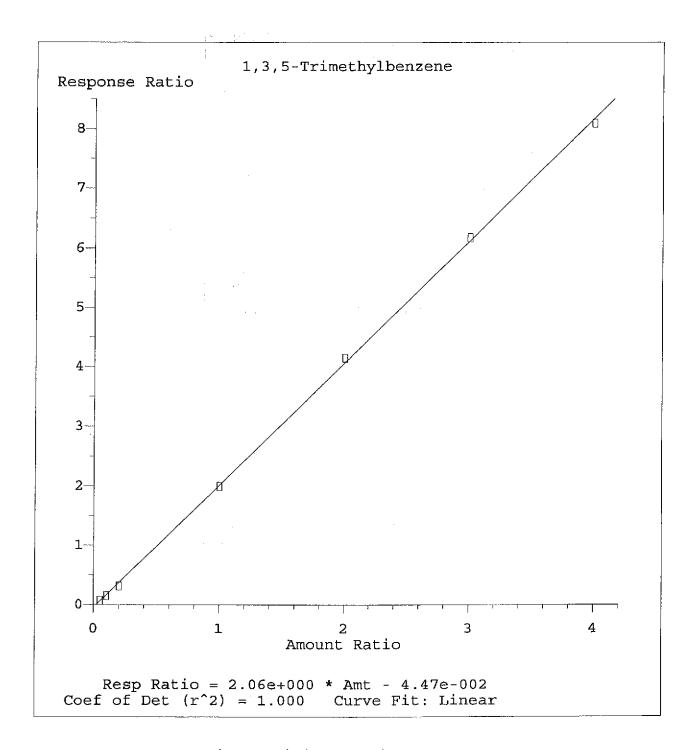


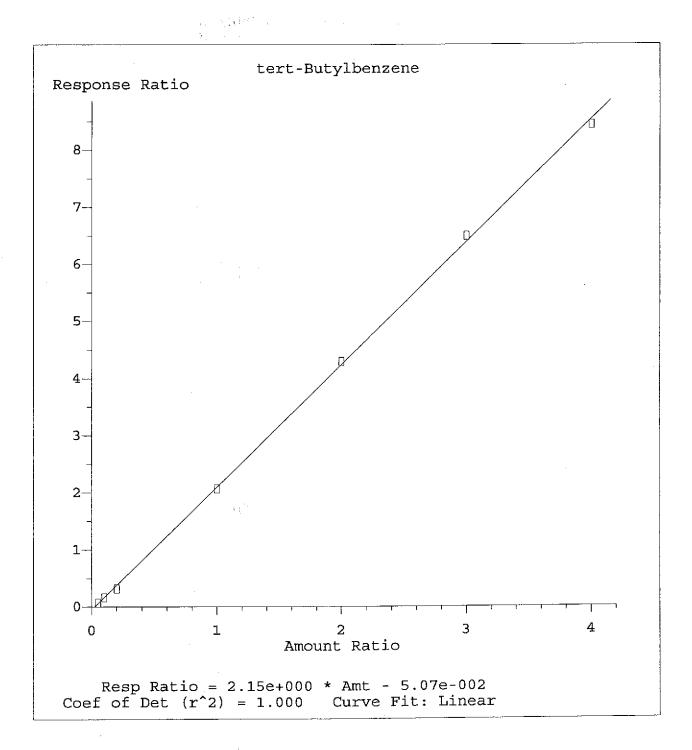


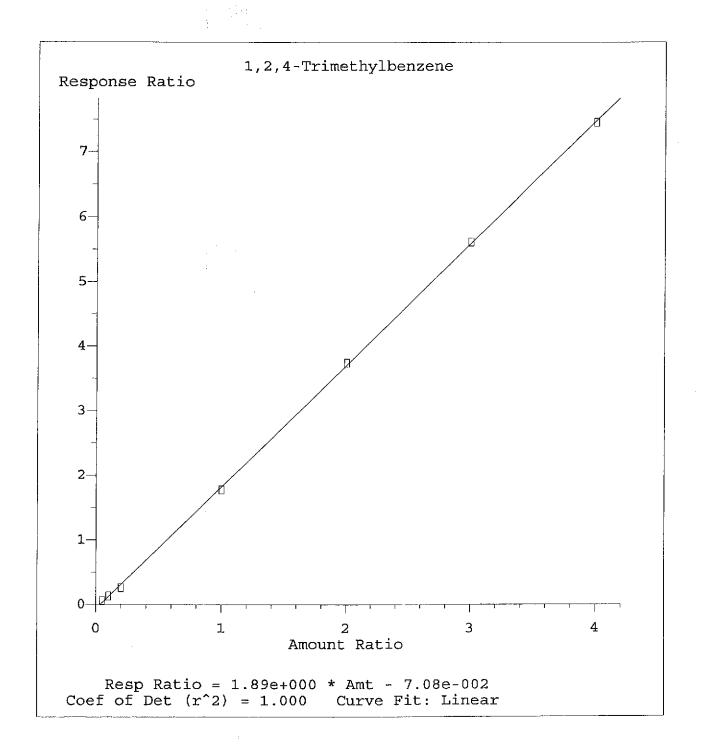


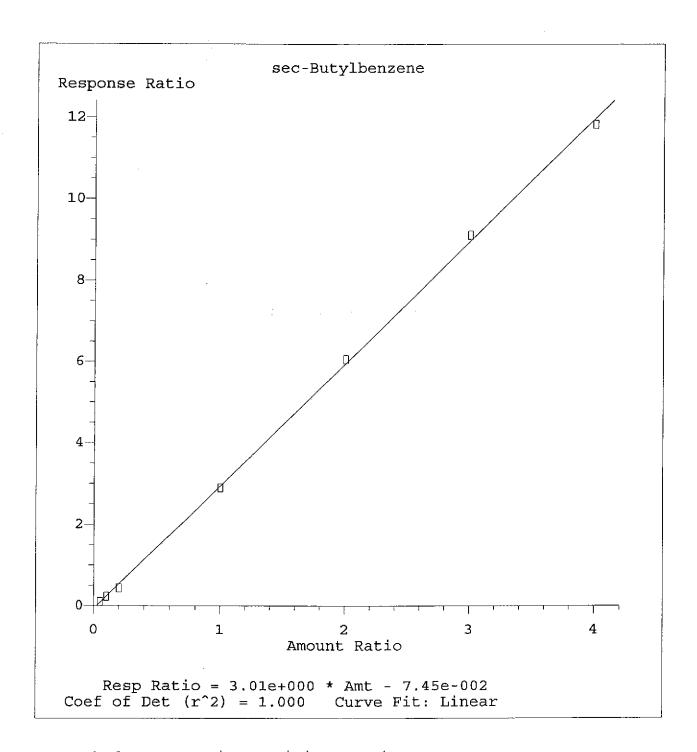




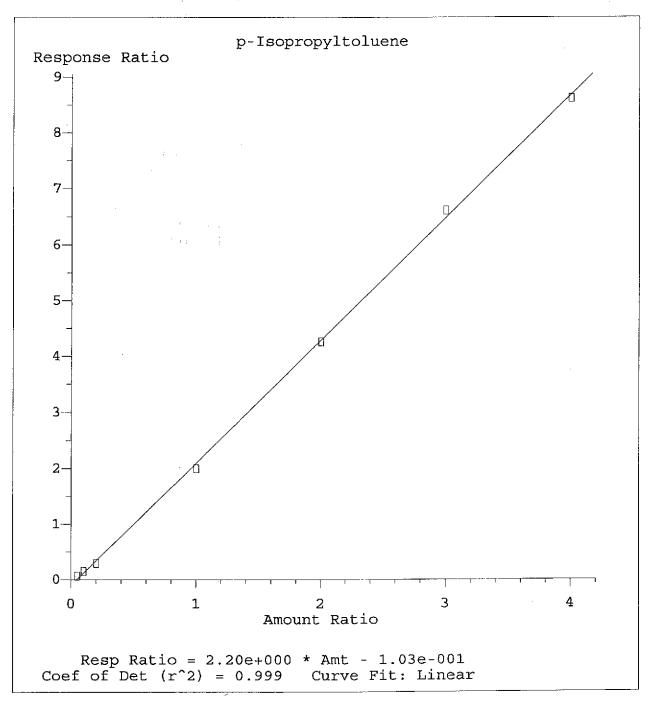


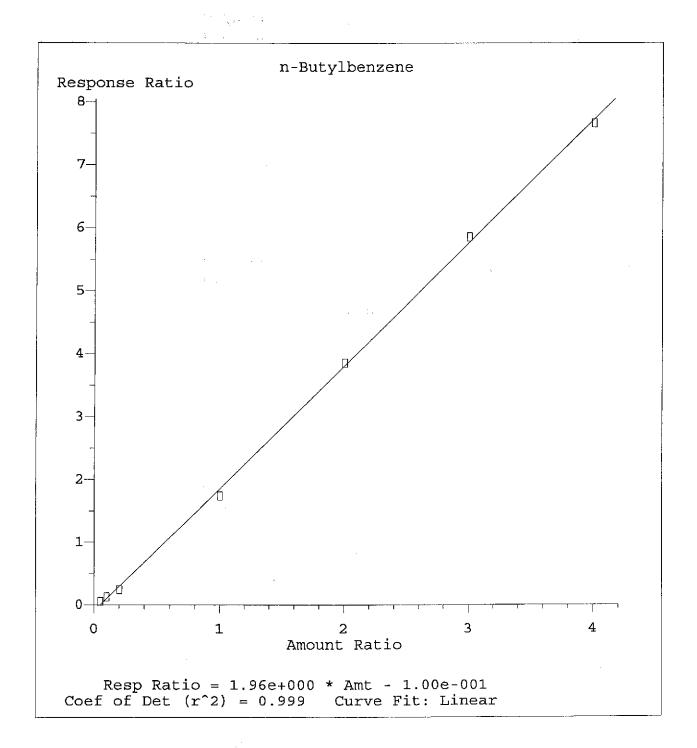


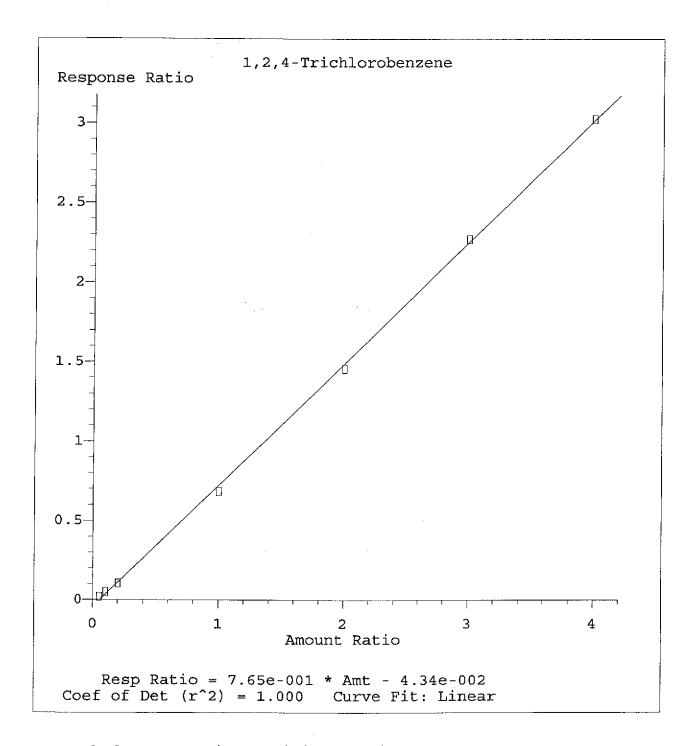


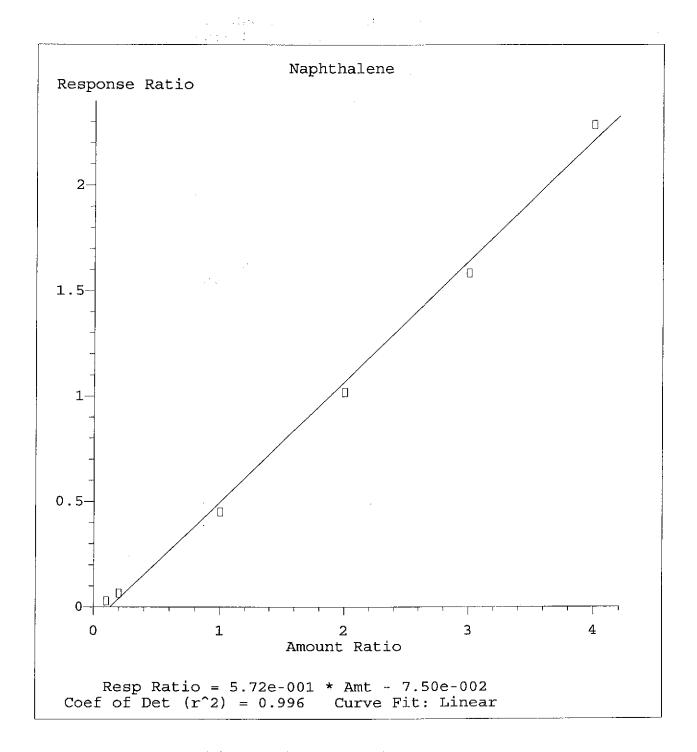


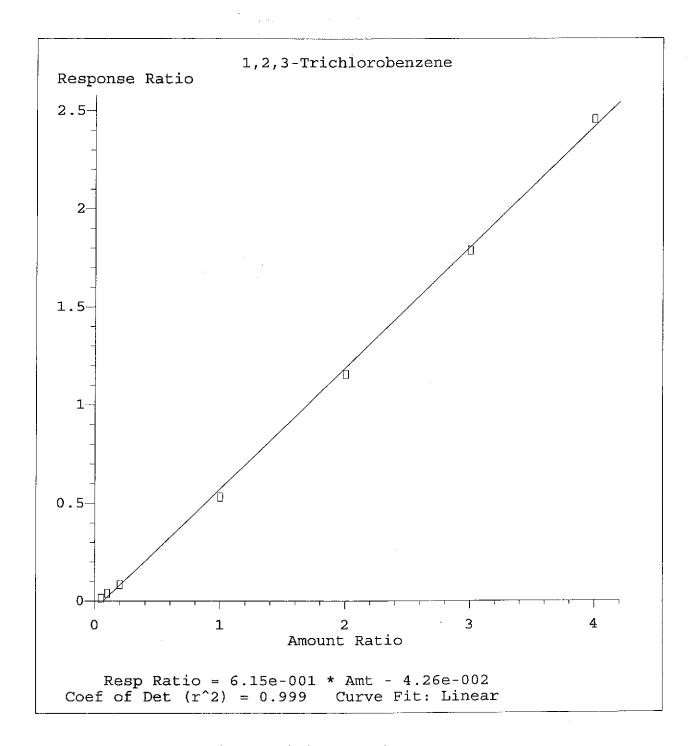












AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method:

SW8260B

AAB #:

R13190

Lab Name:

Life Science Laboratories, In

Contract Number:

Instrument ID:

MS02 12

Initial Calibration ID:

<u>1221</u>

Second Source ID:

2SRC-13190

Concentration Units (mg/L or mg/kg):

: <u>µg/L</u>

Analyte	Expected	Found	%D	Q
(m+p)-Xylene	20	21.9	-9.4	
1,1,1,2-Tetrachloroethane	10	10.5	-5.2	
1,1,1-Trichloroethane	10	9.54	4.6	
1,1,2,2-Tetrachloroethane	10	10.8	-8.0	
1,1,2-Trichloroethane	10	10.1	-1.2	
1,1-Dichloroethane	10	9.97	0.3	
1,1-Dichloroethene	10	12	-20.1	
1,1-Dichloropropene	10	10.8	-7.8	
1,2,3-Trichlorobenzene	10	9.38	6.2	
1,2,3-Trichloropropane	10	11.6	-15.9	
1,2,4-Trichlorobenzene	10	10.2	-2.2	
1,2,4-Trimethylbenzene	10	10.2	-1.8	
1,2-Dibromo-3-chloropropane	10	10.8	-7.6	
1,2-Dibromoethane	10	10.4	-4.5	
1,2-Dichlorobenzene	10	11.3	-13.2	
1,2-Dichloroethane	10	9.54	4.6	
1,2-Dichloroethane-d4	10	9.76	2.4	
1,2-Dichloropropane	10	9.85	1.5	
1,3,5-Trimethylbenzene	10	10.2	-2.5	-
1,3-Dichlorobenzene	10	11.4	-13.5	
1,3-Dichloropropane	10	9.97	0.3	
1,4-Dichlorobenzene	10	10.8	-7.8	
1-Chlorohexane	10	10	0	
2,2-Dichloropropane	10	10.8	-8.0	
2-Butanone	20	18.9	5.4	
2-Chlorotoluene	10	10.8	-8.1	
4-Bromofluorobenzene	10	10.7	-7.2	
4-Chlorotoluene	10	11.3	-13.0	
4-Methyl-2-pentanone	20	15.4	22.8	
Acetone	20	16.6	16.8	
Benzene	10	10.3	-3.3	
Bromobenzene	10	10.6	-5.8	
Bromochloromethane	10	9.77	2.3	
Bromodichloromethane	10	10.4	-3.5	
Bromoform	10	9.44	5.6	

Comments:			
	 		

AFCEE ORGANIC ANALYSES DATA SHEET 4 SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method:

SW8260B

AAB #:

R13190

Lab Name:

Life Science Laboratories, In

Contract Number:

Instrument ID:

MS02 12

Initial Calibration ID:

<u>1221</u>

Second Source ID:

2SRC-13190

Concentration Units (mg/L or mg/kg):

<u>µg/L</u>

Analyte	Expected	Found	%D	Q
Bromomethane	10	10.4	-3.5	
Carbon tetrachloride	10	9.68	3.2	
Chlorobenzene	10	10.2	-2.0	
Chloroethane	10	9.33	6.7	
Chloroform	10	9.77	2.3	
Chloromethane	10	9.39	6.1	
cis-1,2-Dichloroethene	10	10.4	-3.6	
cis-1,3-Dichloropropene	10	9.24	7.6	
Dibromochloromethane	10	10.5	-4.9	
Dibromomethane	10	10.2	-2.4	
Dichlorodifluoromethane	10	10.3	-2.7	
Ethylbenzene	10	10.4	-4.3	
Hexachlorobutadiene	10	12	-19.8	
Isopropylbenzene	10	10.9	- 9 .3	
Methyl tert-butyl ether	10	10.1	-1.4	
Methylene chloride	10	9.38	6.2	
n-Butylbenzene	10	10.2	-1.5	
n-Propylbenzene	10	11.4	-14.5	
Naphthalene	10	9.55	4.5	
o-Xylene	10	11.4	-13.8	
p-Isopropyltoluene	10	10.1	-1.2	•
sec-Butylbenzene	10	10.4	-4.2	
Styrene	10	10.5	-4.7	
tert-Butylbenzene	10	10.5	-4.7	
Tetrachloroethene	10	10.6	-6.5	
Toluene	10	10.5	-4.9	
Toluene-d8	10	10.9	-9.4	
trans-1,2-Dichloroethene	10	10.9	-9.3	
trans-1,3-Dichloropropene	10	9.37	6.3	
Trichloroethene	10	10.2	-1.5	
Trichlorofluoromethane	10	10.3	-2.9	
Vinyl chloride	10	9.99	0.1	
Xylenes (total)	30	33.2	-10.8	

Comments:					
	-	 		 	

AFCEE ORGANIC ANALYSES DATA SHEET 5 CALIBRATION VERIFICATION

Analytical Method: 8260B AAB #:

Lab Name: Life Science Laboratories, Inc.

Contract #:

Instrument ID: HP5970 GCMS#2 Initial Calibration -ID: 1221

ICV ID: ICV-13190 CCV #1 ID: CCV-13266

SEE ATTACHED

Comments:		
	 1 Jr. 1	\

Data File : C:\HPCHEM\1\DATA\M4878.D

Acq On : 10 Apr 2008 13:05

MS Integration Params: RTEINT.P

Operator: GS Sample : CCV-13266 Misc : CCV ,8260WAF 40CAL, Inst : #2MS12 Multiplr: 1.00

Vial: 2

: C:\HPCHEM\1\METHODS\M407P360.M (RTE Integrator) Method : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Title

Last Update : Fri Apr 11 14:15:41 2008 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

		にいる。()() Compound ()() 	AvgRF	CCRF	%Dev	Area%	Dev(min)
	Т.	riuoropenzene (1.)	1.000	1.000	0.0	106	0.00
. 2		Dichlorodifluoromethane	0.818	0.815	0.4	98	0.00
	P	Chloromethane Vinyl chloride Bromomethane Chloroethane	0.313	0.271	13.4	91	0.00
4	CP	Vinyl chloride	0.299	0.283	5.4	99	0.00
5		Bromomethane	0.187	0.166	11.2	117	0.00
6		Chloroethane had the contract of the contract	0.161	0.156	3.1	89	0.00
7		irreniororiuorometnane	0.712	0.702	1.4	95	0.00
8		Acetone	0.025	0.024#	4.0	96	0.00
9	CPM	1,1-Dichloroethene Methyl iodide Methylene chloride	0.192	0.176	8.3	92	0.00
10		Methyl iodide	0.477	0.349	26.8#	62	0.00
11	•	Methylene chloride	0.346	0.255	26.3#	91	0.00
1.2		ACTATOMETER	0.022	0.020#	9.1	96	0.00
13		Carbon disulfide Methyl tert-Butyl ether	0.914	0.830	9.2	92	0.00
14		Methyl tert-Butyl ether	0.382	0.359	6.0	100	0.00
		trans-1,2-Dichloroethene Vinyl acetate	0.266	0.244	8.3	95	0.00
16	_	Vinyl acetate	0,239	0.238	0.4	98	0.00
17	Р	l.I-Dichioroethane	n 559	0.509	8.9	92	0.00
18		2-Butanone	0,042	0.037#	11.9	97	0.00
19		2-Butanone 2,2-Dichloropropane cis-1,2-Dichloroethene Chloroform Bromochloromethane	0.403	0.386	4.2	92	0.00
20	~	cis-1,2-Dichloroethene	0.309	0.280	9.4	91	0.00
	CP	Chloroform	0.716	0.626	12.6	90	0.00
22		Dromoorro one change and the	U . I /	U. IU	10.2	88	0.00
23		1,1,1-Trichloroethane 1,1-Dichloropropene	0.517	0.479	7.4	90	0.00
24	_	1,1-Dichloropropene	0.407	0.367	9.8	87	0.00
25	S	1,2-Dichioroethane-d4	0.245	0.218	11.0	85	0.00
26		Carbon tetrachlogide 1,2-Dichloroethane	0.522	0.487	6.7	90	0.00
27		1,2-Dichloroethane	0.288	0.257	10.8	83	0.00
28		Benzene	0.812		12.1	87	0.00
29		Trichloroetheney 1,2-Dichloropropane	0.411	0.367	10.7	89	0.00
30	Cb	1,2-Dichloropropane	0.331	0.285	13.9	88	0.00
31		Bromodichloromethane	0.732	0.663	9.4	89	0.00
32		Dibromomethane	0.286		10.5	88	0.00
33		4-Methyl-2-pentanone	0.138	0.114	17.4	89	0.00
34	an.	4-Methyl-2-pentanone cis-1,3-Dichloropropene Toluene	0.421	0.380	9.7	88	0.00
	CPM		0.555	0.476			
36		: . — · · · · · · · · · · · · · · · · · ·	0,276	0.253	8.3	87	0.00
37		2-Hexanone	0.085	0.075	11.8	85	0.00
38		the control of the co	0,220	0.197	10.5	88	0.00
- 7	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
	Š		1.490	1.354	9.1	89	0.00.00
							- Hinla

^{(#) =} Out of Range

Data File : C:\HPCHEM\1\DATA\M4878.D

Vial: 2

Operator: GS Inst : #2MS12 Multiplr: 1.00

Acq On : 10 Apr 2008 13:05
Sample : CCV-13266
Misc : CCV ,8260WAF 40CAL, MS Integration Params: RTEINT.P.

Method : C:\HPCHEM\1\METHODS\M407P360.M (RTE Integrator)
Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df

Last Update : Fri Apr 11 14:15:41 2008 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev: 20% Max. Rel. Area: 200%

	PICA.	rati bev . 200 rax. Rel.	AICa . 2	.000			
_		२ भृत्ये स्ट्राट्ट Compound 	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		1,3-Dichloropropane	0.652	0.609	6.6	90	0.00
42		Tetrachloroethene	0.853	0.792	7.2	89	0.00
43		Dibromochloromethane	0.976	0.934	4.3	90	0.00
44		1,2-Dibromoethane x + x + x + x + x + x + x + x + x + x		0.601	6.7	88	0.00
45		1-Chlorohexane	0.601	0.577	4.0	90	0.00
46	PM	Chlorobenzene FRANCIERO REL			8.2	85	0.00
47		1,1,1,2-Tetrachloroethane		0.676	4.8	88	0.00
48	CP	Ethylbenzene Application		1.738	6.8	83	0.00
49		(m+p)-Xylene (30)	0.662	0.626	5.4	83	0.00
50		o-Xylene	0.667	0.638	4.3	92	0.00
5 1		Styrene 850 (M. A.)	1.098	1.060	3.5	90	0.00
52	P	Bromoform 8135	0.529	0.537	-1.5	91	0.00
		e water (Communication)					
53	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
		Isopropylbenzene	2.597	2.500	3.7	91	0.00
55	P	1,1,2,2-Tetrachloroethane	0.944	0.938	0.6	91	0.00
56		Bromofluorobenzene	1.714	1.604	6.4	91	0.00
57		1,2,3-Trichloropropane	0.477	0.440	7.8	93	0.00
58		trans-1,4-Dichloro-2-butene	0.055	0.056	-1.8	88	0.00
59		n-Propylbenzene	3.043	2,923	3.9	88	0.00
60		Bromobenzene	0,983	0,935	4.9	90	0.00
61		1,3,5-Trimethylbenzene	1.815	1.719	5.3	87	0.00
62		2-Chlorotoluene	2.526	2.403	4.9	90	0.00
63		4-Chlorotoluene	2.375	2.272	4.3	91	0.00
64		tert-Butylbenzene	1.894	1.843	2.7	90	0.00
65		1,2,4-Trimethylbenzene	1.601	1.564	2.3	89	0.00
66		sec-Butylbenzene	2.620	2.575	1.7	90	0.00
67		p-Isopropyltoluene	1.833	1.766	3.7	90	0.00
68		1,3-Dichlorobenzene	1.570	1.529	2.6	92	0.00
69		1,4-Dichlorobenzene	1.443	1.418	1.7	95	0.00
70		n-Butylbenzene	1.582	1.550	2.0	90	0.00
71		1,2-Dichlorobenzene	1.369	1.350	1.4	93	0.00
72		1,2-Dibromo-3-chloropropane	0.151	0.158	-4.6	99	0.00
73		1,2,4-Trichlorobenzene	0.624	0.634	-1.6	94	0.00
74		Hexachlorobutadiene	0.621	0.618	0.5	9.3	0.00
75		Naphthalene	0.448	0.438	2.2	98	0.00
76		1,2,3-Trichlorobenzene	0.489	0,501	-2.5	95	0.00
							,
		ရေးမြောင်းကြောင့် မြောင်းကြောင့် မြောင်းကြောင့် မြောင်းကြောင့် မြောင်းကြောင့် မြောင်းကြောင့် မြောင်းကြောင့် မြ					
		45.460	1. *				
		14.					

^{(#) =} Out of Range SPCC's out = 0 CCC's out = 0 M4878.D M407P360.M Fri Apr 11 14:19:15 2008

Data File : C:\HPCHEM\1\DATA\M4878.D Vial: 2 Operator: GS Acq On : 10 Apr 2008 13:05 Sample : CCV-13266
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P Inst : #2MS12 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\M407P360.M (RTE Integrator)
Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Title : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df Last Update : Fri Apr 11 14:15:41 2008

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev: 20% Max. Rel. Area: 200%

	Compound	Amount Calc.	%Dev Area%	Dev(min)
1 I		10.000 10.000	0.0 106	0.00
2		10.000 9.965	0.4 98	0.00
3 P	Chloromethane Okari 14 de la	10.000 8.650	13.5 91	0.00
4 CP	Vinyl chloride	10.000 9.477	5.2 99	0.00
5	Bromomethane	10.000 8.578	14.2 117	0.00
6		10.000 8.849	11.5 89	0.00
7	Trichlorofluoromethane	10.000 9.853	1.5 95	0.00
8	Acetone	20:000 18:962	5.2 96	0.00
9 CPM	1,1-Dichloroethene	10,000 9.169	8.3 92	0.00
10	Methyl iodide	10.000 6.026	39.7# 62	0.00
11	Methylene chloride	10.000 8.310	16.9 9 1	0.00
12	Acrylonitrile: Rest	50.000 43.141	13.7 96	0.00
13	Carbon disulfide	10.000 9.077	9.2 92	0.00
1 1	Methyl tert-Butyl ether	10.000 9.408	5.9 100	0.00
•	trans-1,2-Dichloroethene	10.000 9.196	8.0 95	0.00
16	Vinyl acetate	10.000 9.988	0.1 98	0.00
17 P	1,1-Dichloroethane	10.000 9.116	8.8 92	0.00
18	2-Butanone	20.000 17.854	10.7 97	0.00
19	2,2-Dichloropropane	10.000 9.592	4.1 92	0.00
	cis-1,2-Dichloroethene	10.000 9.074	9.3 91	0.00
20		10.000 9.074	12.5 90	0.00
21 CP		10.000 8.944	10.6 88	0.00
22	Bromochloromethane	10.000 8.385	16.2 90	0.00
23		10.000 9.023	9.8 87	0.00
24	1,1-Dichloropropene	10.000 9.023	11.1 85	0.00
25 S	1,2-Dichloroethane-d4	* * **	15.2 90	0.00
26	Carbon tetrachlogide	the state of the s	10.7 83	0.00
27	1,2-Dichloroethane	10.000 8.926 10.000 8.789	12.1 87	0.00
28 M	Benzene ga		10.7 89	0.00
29 M	Trichloroetheney	10.000 8.927	13.8 88	0.00
30 CP	1,2-Dichloropropane	10.000 8.617	9.4 89	0.00
31	Bromodichloromethane	10.000 9.060	10.7 88	0.00
32	Dibromomethane (1907)	10.000 8.935 20.000 16.555	17.2 89	0.00
33	4-Methyl-2-pentanone	The state of the s	18.7 88	0.00
34	cis-1,3-Dichloropropene	10.000 8.130 10.000 8.926	10.7 89	0.00
35 CPM	Toluene Charles	the second of th	19.6 87	0.00
36	trans-1,3-Dichloropropene	10.000 8.038	16.9 85	0.00
37	2-Hexanone	20.000 16.620	10.2 88	0.00
38	1,1,2-Trichloroethane	10.000 8.976	10.2 00	0.00
	(<u>***</u> *********************************	10 000 10 000	0.0 99	0.00
Ţ	Chlorobenzene-d5	10.000 10.000		0.00
s د۔	Toluene-d8 - Sangar La	10.000 9.087	9.1 89	JE I Ma
				المتعلقات ال
*	Out of Range	14 10 23 2008	<i></i>	Too da su
M4878.	D M407P360.M Fri Apr 11	14:19:23 2008		ATUIDE
	and the state of t			, <u>"</u>

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Data File : C:\HPCHEM\1\DATA\M4878.D

Vial: 2 Operator: GS Inst : #21

Inst : #2MS12 Multiplr: 1.00

Acq On : 10 Apr 2008 13:05
Sample : CCV-13266
Misc : CCV ,8260WAF 40CAL,
MS Integration Params: RTEINT.P

Method Title : C:\HPCHEM\1\METHODS\M407P360.M (RTE Integrator) : VOC's w/Restek RTX-502.2, 0.53mm x 105m, 3.0 df

Last Update : Fri Apr 11 14:15:41 2008 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 20% Max. Rel. Area : 200%

	raa.	RRI Dev . 20% Max. Rel.	Area : 2	2003			
			Amount	Calc.	%Dev	Area%	Dev(min)
41		1,3-Dichloropropane	10.000	9.334	6.7	90	0.00
42		Tetrachloroethene	10.000	9.284	7.2	89	0.00
43		Dibromochloromethane	10.000	9.569	4.3	90	0.00
44		1,2-Dibromoethane	10.000	9.327	6.7	88	0.00
45		1-Chlorohexane	10.000	8.570	14.3	90	0.00
46	PM	Chlorobenzene		9.176	8.2	85	0.00
47		1,1,1,2-Tetrachloroethane	10.000	9:512	4.9	88	0.00
48	CP	Ethylbenzene The Land Control of the	10.000	9.321	6.8	83	0.00
49		(m+p)-Xvlene	20.000	18.917	5.4	83	0.00
50		o-Xylene (1936) separation	10.000	9.560	4.4	92	0.00
51		Styrene 11038 Page 1	10.000	9.654	3.5	90	0.00
52	P	Bromoform Registration	10.000	8.969	10.3	91	0.00
Ľζ	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	101	0.00
		Isopropylbenzene	10.000	9.629	3.7	91	0.00
55	P	1,1,2,2-TetrachLoroethane	10.000	9.940	0.6	91	0.00
56	S	Bromofluorobenzene	10.000	9.362	6.4	91	0.00
57		1,2,3-Trichloropropane	10.000	9.234	7.7	93	0.00
58		trans-1,4-Dichloro-2-butene	10.000	8.903	11.0	88	0.00
59		n-Propylbenzene	10,000	9.606	3.9	88	0.00
60		Bromobenzene	10.000	9.507	4.9	90	0.00
61		1,3,5-Trimethylbenzene	10.000	8.582	14.2	87	0.00
62			10.000	9.514	4.9	90	0.00
63		4-Chlorotoluene	10.000	9.564	4.4	91	0.00
64		tert-Butylbenzene	10.000	8.820	11.8	90	0.00
65		1,2,4-Trimethylbenzene	10.000	8.662	13.4	89	0.00
66		sec-Butylbenzene	10.000	8.792	12.1	90	0.00
67		p-Isopropyltoluene	10.000	8.513	14.9	90	0.00
68		1,3-Dichlorobenzene da	10.000	9.736	2.6	92	0.00
69		1,4-Dichlorobenzene	10.000	9.825	1.8	95	0.00
70		n-Butylbenzene	10.000	8.441	15.6	90	0.00
71		1,2-Dichlorobenzene	10.000	9.857	1.4	93	0.00
72		1,2-Dibromo-3-chloropropane		10.427	-4.3	99	0.00
73		1,2,4-Trichlorobenzene	10.000	8.858	11.4	94	0.00
74		Hexachlorobutadiene	10.000	9.965	0.4	93 .	0.00
75		Naphthalene	10.000	8,977	10.2	98	0.00
76		1,2,3-Trichlorobenzene	10.000	8.835	11.6	95	0.00
			1 18 (18) (B)	Recognition			
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(#) = Out of Range SPCC's out = 0 CCC's out = 0 M4878.D M407P360.M Mag Fri Apr 11 14:19:24 2008 Page

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AFCEE ORGANIC ANALYSES DATA SHEET 7 BLANKS

Analytical Method:

SW8260B

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>ug/L</u>

Method Blank ID:

MB-13266

Initial Calibration ID:

<u>1221</u>

File ID:

M4882.D

Analyte	Method Blank	RL	Q
(m+p)-Хуlепе	0.100	2.00	U
1,1,1,2-Tetrachloroethane	0.250	0.500	U
1,1,1-Trichloroethane	0.160	1.00	Ü
1,1,2,2-Tetrachloroethane	0.160	0.500	U
1,1,2-Trichloroethane	0.250	1.00	U
1,1-Dichloroethane	0.160	1.00	U
1,1-Dichloroethene	0.250	1.00	U
1,1-Dichloropropene	0.250	1.00	U
1,2,3-Trichlorobenzene	0.500	1.00	U
1,2,3-Trichloropropane	1.00	2.00	U
1,2,4-Trichlorobenzene	0.500	1.00	U
1,2,4-Trimethylbenzene	0.160	1.00	U
1,2-Dibromo-3-chloropropane	2.50	5.00	U
1,2-Dibromoethane	0.250	1.00	U
1,2-Dichlorobenzene	0.160	1.00	U
1,2-Dichloroethane	0.250	0.500	U
1,2-Dichloropropane	0.160	1.00	U
1,3,5-Trimethylbenzene	0.160	1.00	U
1,3-Dichlorobenzene	0.160	1.00	U
1,3-Dichloropropane	0.160	0.500	U
1,4-Dichlorobenzene	0.160	0.500	U
1-Chlorohexane	0.250	1.00	U
2,2-Dichloropropane	0.500	1.00	U
2-Butanone	2.50	10.0	U
2-Chlorotoluene	0.100	1.00	U
4-Chlorotoluene	0.100	1.00	U
4-Methyl-2-pentanone	1.00	10.0	U
Acetone	2.50	10.0	U
Benzene	0.160	0.500	U
Bromobenzene	0.160	1.00	U
Bromochloromethane	0.160	1.00	U
Bromodichloromethane	0.160	0.500	U
Bromoform	0.500	1.00	U
Bromomethane	0.190	3.00	U
Carbon tetrachloride	0.250	1.00	U

Comm	ents:
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AFCEE ORGANIC ANALYSES DATA SHEET 7 BLANKS

Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>μg/L</u>

Method Blank ID:

MB-13266

Initial Calibration ID:

1221

File ID:

M4882.D

Analyte	Method Blank	RL	Q
Chlorobenzene	0.160	0.500	U
Chloroethane	0.500	1.00	U
Chloroform	0.100	0.500	U
Chloromethane	0.500	1.00	U
cis-1,2-Dichloroethene	0.160	1.00	U
cis-1,3-Dichloropropene	0.250	0.500	U
Dibromochloromethane	0.160	0.500	U
Dibromomethane	0.160	1.00	U
Dichlorodifluoromethane	0.250	1.00	U
Ethylbenzene	0.100	1.00	U
Hexachlorobutadiene	0.500	1.00	U
Isopropylbenzene	0.160	1.00	U
Methyl tert-butyl ether	0.500	5.00	U
Methylene chloride	0.160	1.00	U
n-Butylbenzene	0.160	1.00	U
n-Propylbenzene	0.100	1.00	Ü
Naphthalene	0.500	1.00	U
o-Xylene	0.160	1.00	U
p-Isopropyltoluene	0.160	1.00	υ
sec-Butylbenzene	0.160	1.00	U
Styrene	0.160	1.00	U
tert-Butylbenzene	0.160	1.00	υ
Tetrachloroethene	0.100	1.00	U
Toluene	0.100	1.00	U
trans-1,2-Dichloroethene	0.160	1.00	U
trans-1,3-Dichloropropene	0.250	1.00	U
Trichloroethene	0.100	1.00	U
Trichlorofluoromethane	0.100	1.00	U
Vinyl chloride	0.500	1.00	U
Xylenes (total)	0.260	2.00	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	113	72 - 119	
4-Bromofluorobenzene	115	76 - 119	
Toluene-d8	106	81 - 120	

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AFCEE ORGANIC ANALYSES DATA SHEET 7 BLANKS

Analytical Method:

SW8260B

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract Number:

Units:

<u>μg/L</u>

Method Blank ID:

MB-13266

Initial Calibration ID:

1221

File ID:

M4882.D

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	1477374	811362 - 3245448	
Chlorobenzene-d5	2271803	1119858 - 4479430	
Fluorobenzene	4066265	1972798 - 7891190	

comments:		

Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13266

Initial Calibration ID:

<u>1221</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

M4879.D

Analyte	Expected	Found	%R	Control Limits	Q
(m+p)-Xylene	20	20.5	103	76 - 128	Secretary and the
1,1,1,2-Tetrachloroethane	10	9.83	98	81 - 129	
1,1,1-Trichloroethane	10	9.09	91	67 - 132	
1,1,2,2-Tetrachloroethane	10	10.1	101	63 - 128	
1,1,2-Trichloroethane	10	9.26	93	75 - 125	
1,1-Dichloroethane	10	9.67	97	69 - 133	
1,1-Dichloroethene	10	11.7	117	68 - 130	
1,1-Dichloropropene	10	9.94	99	73 - 132	<u></u>
1,2,3-Trichlorobenzene	10	8.74	87	67 - 137	
1,2,3-Trichloropropane	10	11.4	114	73 - 124	
1,2,4-Trichlorobenzene	10	9.70	97	66 - 134	
1,2,4-Trimethylbenzene	10	9.04	90	74 - 132	
1,2-Dibromo-3-chloropropane	10	9.95	100	50 - 132	
1,2-Dibromoethane	10	9.44	94	80 - 121	
1,2-Dichlorobenzene	10	10.5	105	71 - 122	
1,2-Dichloroethane	10	9.15	92	69 - 132	
1,2-Dichloropropane	10	9.19	92	75 - 125	
1,3,5-Trimethylbenzene	10	9.15	92	74 - 131	
1,3-Dichlorobenzene	10	10.4	104	75 - 124	
1,3-Dichloropropane	10	9.11	91	73 - 126	
1,4-Dichlorobenzene	10	9.99	100	74 - 123	
1-Chlorohexane	10	8.93	89	70 - 125	
2,2-Dichloropropane	10	10.1	101	69 - 137	
2-Butanone	20	19.1	96	49 - 136	
2-Chlorotoluene	10	9.63	96	73 - 126	
4-Chlorotoluene	10	10.6	106	74 - 128	
4-Methyl-2-pentanone	20	16.7	84	58 - 134	
Acetone	20	17.1	86	40 - 135	
Benzene	10	9.52	95	81 - 122	
Bromobenzene	10	9.94	99	76 - 124	
Bromochloromethane	10	9.25	92	65 - 129	
Bromodichloromethane	10	9.94	99	76 - 121	
Bromoform	10	8.72	87	69 - 128	
Bromomethane	10	10.0	100	30 - 141	
Carbon tetrachloride	10	9.05	90	66 - 138	
Chlorobenzene	10	9.49	95	81 - 122	
Chloroethane	10	10.0	100	58 - 133	
Chloroform	10	9.48	95	69 - 128	<u>:</u>
Chloromethane	10	9.55	96	56 - 131	
cis-1,2-Dichloroethene	10	10.1	101	72 - 126	
cis-1,3-Dichloropropene	10	8.47	85	69 - 131	
Dibromochloromethane	10	9.68	97	66 - 133	ł

Comments:

Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCS-13266

Initial Calibration ID:

<u>1221</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

M4879.D

Analyte	Expected	Found	%R	Control Limits	Q
Dibromomethane	10	9.80	98	76 - 125	
Dichlorodifluoromethane	10	. 10.7	107	30 - 153	İ
Ethylbenzene	10	9.87	99	73 - 127	
Hexachlorobutadiene	10	10.9	109	67 - 131	
Isopropylbenzene	10	9.95	100	75 - 127	
Methyl tert-butyl ether	10	9.40	94	65 - 123	
Methylene chloride	10	8.74	87	63 - 137	
n-Butylbenzene	10	9.12	91	69 - 137	
п-Propylbenzene	10	10.3	103	72 - 129	ľ
Naphthalene	10	9.52	95	54 - 138	
o-Xylene	10	10.5	105	80 - 121	
p-Isopropyltoluene	10	9.03	90	73 - 130	
sec-Butylbenzene	10	9.45	94	72 - 127	
Styrene	10	9.56	96	65 - 134	
tert-Butylbenzene	10	9.54	95	70 - 129	
Tetrachloroethene	10	9.61	96	66 - 128	
Toluene	10	9.53	95	77 - 122	
trans-1,2-Dichloroethene	10	10.2	102	63 - 137	
trans-1,3-Dichloropropene	10	8.36	84	59 - 135	<u> </u>
Trichloroethene	10	9.60	96	70 - 127	
Trichlorofluoromethane	10	10.6	106	57 - 129	:
Vinyl chloride	10	10.4	104	50 - 134	
Xylenes (total)	30	31.0	104	80 - 121	

Sprrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	108	76 - 119	
Toluene-d8	107	81 - 120	

Internal Std	Area Counts	Area Count Limits Qualifier	
1,4-Dichlorobenzene-d4	1546693	811362 - 3245448	
Chlorobenzene-d5	2128402	1119858 - 4479430	
Fluorobenzene	3908570	1972798 - 7891190	

Comments:	

Analytical Method:

<u>SW8260B</u>

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCSD-13266

Initial Calibration ID:

<u>1221</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

M4880.D

Analyte	Expected	Found	%R	Control Limits	l a
(m+p)-Xylene	20	21.6	108	76 - 128	
1,1,1,2-Tetrachloroethane	10	10.4	104	81 - 129	
1,1,1-Trichloroethane	10	9.47	95	67 - 132	
1,1,2,2-Tetrachloroethane	10	10.7	107	63 - 128	
1,1,2-Trichloroethane	10	10.0	100	75 - 125	
1,1-Dichloroethane	10	10.0	100	69 - 133	
1,1-Dichloroethene	10	11.9	119	68 - 130	
1,1-Dichloropropene	10	10.5	105	73 - 132	
1,2,3-Trichlorobenzene	10	9.34	93	67 - 137	
1,2,3-Trichloropropane	10	11.7	117	73 - 124	
1,2,4-Trichlorobenzene	10	10.2	102	66 - 134	
1,2,4-Trimethylbenzene	10	9.96	100	74 - 132	
1,2-Dibromo-3-chloropropane	10	10.6	106	50 - 132	
1,2-Dibromoethane	10	10.3	103	80 - 121	
1,2-Dichlorobenzene	10	11.3	113	71 - 122	
1,2-Dichloroethane	10	9.88	99	69 - 132	
1,2-Dichloropropane	10	10.1	101	75 - 125	
1,3,5-Trimethylbenzene	10	10.0	100	74 - 131	
1,3-Dichlorobenzene	10	11.1	111	75 - 124	
1,3-Dichloropropane	10	9.85	98	73 - 126	
1,4-Dichlorobenzene	10	10.9	109	74 - 123	
1-Chlorohexane	10	9.36	94	70 - 125	
2,2-Dichloropropane	10	10.5	105	69 - 137	
2-Butanone	20	20.1	101	49 - 136	
2-Chlorotoluene	10	10.3	103	73 - 126	
4-Chlorotoluene	10	12.0	120	74 - 128	:
4-Methyl-2-pentanone	20	16.5	83	58 - 134	:
Acetone	20	17.4	87	40 - 135	<u> </u>
Benzene	10	10.1	101	81 - 122	
Bromobenzene	10	10.7	107	76 - 124	
Bromochloromethane	10	10.1	101	65 - 129	
Bromodichloromethane	10	10.5	105	76 - 121	-
Bromoform	10	9.43	94	69 - 128	
Bromomethane	10	9.57	96	30 - 141	
Carbon tetrachloride	10	9.81	98	66 - 138	
Chlorobenzene	10	9.98	100	81 - 122	 -
Chloroethane	10	9.69	97	58 - 133	
Chloroform	10	9.95	100	69 - 128	
Chloromethane	10	10.0	100	56 - 131	
cis-1,2-Dichloroethene	10	10.4	104	72 - 126	
cis-1,3-Dichloropropene	10	9.09	91	69 - 131	
Dibromochloromethane	10	10.3	103	66 - 133	

Com	ments:
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Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

LCS ID:

LCSD-13266

Initial Calibration ID:

<u>1221</u>

Concentration Units (mg/L or mg/kg):

μg/L

File ID:

M4880.D

Analyte	Expected	Found	%R	Control Limits	Q
Dibromomethane	10	10.4	104	76 - 125	
Dichlorodifluoromethane	10	11.1	111	30 - 153	:
Ethylbenzene	10	10.2	102	73 - 127	
Hexachlorobutadiene	10	11.4	114	67 - 131	
Isopropylbenzene	10	10.6	106	75 - 127	
Methyl tert-butyl ether	10	10.0	100	65 - 123	
Methylene chloride	10	9.04	90	63 - 137	İ
n-Butylbenzene	10	10.1	101	69 - 137	
n-Propylbenzene	10	11.2	112	72 - 129	
Naphthalene	10	10.4	104	54 - 138	
o-Xylene	10	11.1	111	80 - 121	
p-Isopropyltoluene	10	9.75	98	73 - 130	
sec-Butylbenzene	10	10.2	102	72 - 127	
Styrene	10	10.3	103	65 - 134	
tert-Butylbenzene	10	10.3	103	70 - 129	
Tetrachloroethene	10	10.3	103	66 - 128	
Toluene	10	10.3	103	77 - 122	
trans-1,2-Dichloroethene	10	10.6	106	63 - 137	
trans-1,3-Dichloropropene	10	9.12	91	59 - 135	
Trichloroethene	10	10.3	103	70 - 127	
Trichlorofluoromethane	10	11.2	112	57 - 129	
Vinyl chloride	10	10.5	105	50 - 134	
Xylenes (total)	30	32.7	109	80 - 121	

Surrogate	Recovery	Control Limits Quali	fier
1,2-Dichloroethane-d4	102	72 - 119	
4-Bromofluorobenzene	106	76 - 119	
Toluene-d8	107	81 - 120	

Internal Std	Area Counts	Area Count Limits Qualifier
1,4-Dichlorobenzene-d4	1565441	811362 - 3245448
Chlorobenzene-d5	2157996	1119858 - 4479430
Fluorobenzene	3959588	1972798 - 7891190

Comn	nents:				
		 	 		

AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB#:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

<u>μα/L</u>

% Solids:

<u>0</u>

Parent Field Sample ID:

LCSD-13266

MS ID: LCS-13266

MSD ID: LCSD-13266

Calibration ID: 1221

	Parent		Spiked		Duplicate			Control	Control	
Analyte	Sample Result	Spike Added	Sample Result	%R	Spiked Sample	%R	%RPD	Limits %R	Limits %RPD	Q.
	Result	Auueu	Result		Result			/ers	MINTU	
(m+p)-Xylene		20.0	20.5	103	21.6	108	5	76 - 128	20	
1,1,1,2-Tetrachloroethane		10.0	9.83	98	10.4	104	5	81 - 129	20	
1,1,1-Trichloroethane		10.0	9.09	91	9.47	95	4	67 - 132	20	
1,1,2,2-Tetrachloroethane		10.0	10.1	101	10.7	107	6	63 - 128	20	
1,1,2-Trichloroethane		10.0	9.26	93	10.0	100	8	75 - 125	20	
1,1-Dichloroethane		10.0	9.67	97	10.0	100	4	69 - 133	20	
1,1-Dichloroethene		10.0	11.7	117	11.9	119	2	68 - 130	20	
1,1-Dichloropropene		10.0	9.94	99	10.5	105	5	73 - 132	20	
1,2,3-Trichlorobenzene		10.0	8.74	87	9.34	93	7	67 - 137	20	
1,2,3-Trichloropropane		10.0	11.4	114	11.7	117	3	73 - 124	20	
1,2,4-Trichlorobenzene		10.0	9.70	97	10.2	102	5	66 - 134	20	
1,2,4-Trimethylbenzene		10.0	9.04	90	9.96	100	10	74 - 132	20	
1,2-Dibromo-3-chloropropane		10.0	9.95	100	10.6	106	6	50 - 132	20	
1,2-Dibromoethane		10.0	9.44	94	10.3	103	9	80 - 121	20	
1,2-Dichlorobenzene		10.0	10.5	105	11.3	113	8	71 - 122	20	
1,2-Dichloroethane		10.0	9.15	92	9.88	99	8	69 - 132	20	
1,2-Dichloropropane		10.0	9.19	92	10.1	101	9	75 - 125	20	
1,3,5-Trimethylbenzene		10.0	9.15	92	10.0	100	9	74 - 131	20	
1,3-Dichlorobenzene		10.0	10.4	104	11.1	111	7	75 - 124	20	
1,3-Dichloropropane		10.0	9.11	91	9.85	98	8	73 - 126	20	
1,4-Dichlorobenzene		10.0	9.99	100	10.9	109	8	74 - 123	20	
1-Chlorohexane		10.0	8.93	89	9.36	94	5	70 - 125	20	
2,2-Dichloropropane		10.0	10.1	101	10.5	105	4	69 - 137	20	
2-Butanone		20.0	19.1	96	20.1	101	5	49 - 136	20	
2-Chlorotoluene		10.0	9.63	96	10.3	103	7	73 - 126	20	
4-Chlorotoluene		10.0	10.6	106	12.0	120	12	74 - 128	20	
4-Methyl-2-pentanone		20.0	16.7	84	16.5	83	1	58 - 134	20	
Acetone		20.0	17.1	86	17.4	87	2	40 - 135	20	
Веплепе		10.0	9.52	95	10.1	101	6	81 - 122	20	
Bromobenzene		10.0	9.94	99	10.7	107	7	76 - 124	20	
Bromochloromethane		10.0	9.25	92	10.1	101	9	65 - 129	20	
Bromodichloromethane		10.0	9.94	99	10.5	105	6	76 - 121	20	
Bromoform		10.0		87	9.43	94	8	69 - 128	20	

Comments:

AFCEE ORGANIC ANALYSES DATA SHEET 9 MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method:

SW8260B

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Concentration Units (mg/L or mg/kg):

μg/L

% Solids:

<u>0</u>

Parent Field Sample ID:

LCSD-13266

MS ID: LCS-13266

MSD ID: LCSD-13266

Calibration ID: 1221

Pan		Spiked		Duplicate			Control	Control	
Analyte Sam Res		Sample Result	%R	Spiked Sample	%R	%RPD	Limits %R	Limits %RPD	Q
	Augen	Result		Result			vor.	L ZINE P	16:01
Bromomethane	10.0	10.0	100	9.57	96	5	30 - 141	20	
Carbon tetrachloride	10.0	9.05		9.81	98	8	66 - 138	20	
Chlorobenzene	10.0	9.49		9.98	100	5	81 - 122	20	
Chloroethane	10.0	10.0			97	4	58 - 133	20	
Chloroform	10.0	9.48		9.95	100	5	69 - 128	20	
Chloromethane	10.0	9.55	96	10.0	100	5	56 - 131	20	
cis-1,2-Dichloroethene	10.0	10.1	101	10.4	104	3	72 - 126	20	
cis-1,3-Dichloropropene	10.0	8.47	85	9.09	91	7	69 - 131	20	
Dibromochloromethane	10.0	9.68	97	10.3	103	6	66 - 133	20	
Dibromomethane	10.0	9.80	98	10.4	104	6	76 - 125	20	
Dichlorodifluoromethane	10.0	10.7	107	11.1	111	3	30 - 153	20	
Ethylbenzene	10.0	9.87	99	10.2	102	4	73 - 127	20	
Hexachlorobutadiene	10.0	10.9	109	11.4	114	5	67 - 131	20	
Isopropylbenzene	10.0	9.95	100	10.6	106	7	75 - 127	20	
Methyl tert-butyl ether	10.0	9.40	94	10.0	100	6	65 - 123	20	
Methylene chloride	10.0	8.74	87	9.04	90	3	63 - 137	20	
n-Butylbenzene	10.0	9.12	91	10.1	101	10	69 - 137	20	
n-Propylbenzene	10.0	10.3	103	11.2	112	8	72 - 129	20	
Naphthalene	10.0	9.52	95	10.4	104	9	54 - 138	20	
o-Xylene	10.0	10.5	105	11.1	111	5	80 - 121	20	
p-Isopropyltoluene	10.0	9.03	90	9.75	98	8	73 - 130	20	
sec-Butylbenzene	10.0	9.45	94	10.2	102	7	72 - 127	20	
Styrene	10.0	9.56	96	10.3	103	7	65 - 134	20	
tert-Butylbenzene	10.0	9.54	95	10.3	103	8	70 - 129	20	
Tetrachloroethene	10.0	9.61	96	10.3	103	7	66 - 128	20	
Toluene	10.0	9.53	95	10.3	103	8	77 - 122	20	
trans-1,2-Dichloroethene	10.0	10.2	102	10.6	106	4	63 - 137	20	
trans-1,3-Dichloropropene	10.0	8.36	84	9.12	91	9	59 - 135	20	
Trichloroethene	10.0	9.60	96	10.3	103	. 7	70 - 127	20	
Trichlorofluoromethane	10.0	10.6	106	11.2	112	6	57 - 129	20	
Vinyl chloride	10.0	10.4	104	10.5	105	2	50 - 134	20	
Xylenes (total)	30.0	31.0	104	32.7	109	5	80 - 121	20	

Comments:		

AFCEE ORGANIC ANALYSES DATA SHEET 10 **HOLDING TIMES**

Analytical Method: SW8260B

AAB #:

R13266

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Field Sample ID	Lab Sample ID	Date Collected	Date Received	Date	Time Held Ext	Date Analyzed	Holding	Held	B6000000000000000000000000000000000000
TF3M119R11SA	.0804056-001A	08-Apr-08	09-Apr-08	10-Apr-08		10-Арг-08	14	2.4	
TF3M121R11SA	0804056-002A	08-Apr-08	09-Apr-08	10-Apr-08		10-Apr-08	14	2.3	

Comments:

AFCEE ORGANIC ANALYSES DATA SHEET 11 INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method:

SW8260B

AAB#:

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID #:

MS02 12

Calibration ID: 1221

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Lab Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
TB040708A2	TB040708A2	07-Apr-08	11:43	07-Apr-08	13:13
ICAL 0.5 PPB	ICAL 0.5 PPB	07-Apr-08	13:13	07-Apr-08	15:16
ICAL 10 PPB	ICAL 10 PPB	07-Apr-08	15:16	07-Apr-08	16:44
ICAL 1.0 PPB	ICAL 1.0 PPB	07-Apr-08	16:44	07-Apr-08	17:23
ICAL 2.0 PPB	ICAL 2.0 PPB	07-Apr-08	17:23	07-Apr-08	18:03
ICAL 20 PPB	ICAL 20 PPB	07 -Ap r-08	18:03	07-Apr-08	18:42
ICAL 30 PPB	ICAL 30 PPB	07-Арг-08	18:42	07-Apr-08	19:21
ICAL 40 PPB	ICAL 40 PPB	07-Apr-08	19:21	08-Apr-08	14:34
2SRC-13190	2SRC-13190	08-Apr-08	14:34	08-Apr-08	14:34
TB041008A2	TB041008A2	10-Apr-08	12:35	10-Apr-08	13:59
LCS-13266	LCS-13266	10-Apr-08	13:59	10-Apr-08	14:38
LCSD-13266	LCSD-13266	10-Apr-08	14:38	10-Apr-08	15:57
MB-13266	MB-13266	10-Apr-08	15:57	10-Apr-08	20:32
TF3M121R11SA	0804056-002A	10-Apr-08	20:32	10-Apr-08	21:51
TF3M119R11SA	0804056-001A	10-Apr-08	21:51	10-Apr-08	21:51

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AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB#:

MS02 12 080407A

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS02_12

Injection Date/Time:

4/7/2008 11:43:00 AM

Initial Calibration ID:

<u>1221</u>

File ID:

C:\HPCHEM\1\DATA\M4818.D

Compound:

SW8260B

Sample ID:

TB040708A2

Mass	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of m/z 95	22.1
75	30 - 60% of m/z 95	46.2
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0
174	Greater than 50% of m/z 95	58.2
175	5 - 9% of m/z 174	6.6
176	Greater than 95% but less than 101% of m/z 174	98.7
177	5 - 9% of m/z 176	5.5

AFCEE ORGANIC ANALYSES DATA SHEET 12 INSTRUMENT PERFORMANCE CHECK (BFB or DFTPP)

Analytical Method:

SW8260B

AAB #:

MS02_12_080410B

Lab Name:

Life Science Laboratories, Inc.

Contract #:

Instrument ID:

MS02 12

Injection Date/Time:

4/10/2008 12:35:00 PM

Initial Calibration ID:

<u>1221</u>

File ID:

C:\HPCHEM\1\DATA\M4877.D

Compound:

SW8260B

Sample ID:

TB041008A2

Mass	Ion Abundance Criteria	% Relative Abundance Q
50	15 - 40% of m/z 95	23.7
75	30 - 60% of m/z 95	50.5
95	Base peak, 100% relative abundance	100
96	5 - 9% of m/z 95	6.1
173	Less than 2% of m/z 174	. 0
174	Greater than 50% of m/z 95	56.2
175	5 - 9% of m/z 174	5.8
176	Greater than 95% but less than 101% of m/z 174	99.2
177	5 - 9% of m/z 176	6.3