PHILIPS

PHILIPS

Barbara
Stephanie

Philips Semiconductors

Philips Semiconductors
a North American Philips Company
9201 Pan American Freeway, NE
Albuquerque, New Mexico 87113
(505) 822-7000

September 16, 1996

Mr. Benito Garcia
New Mexico Environment Department
Hazardous & Radioactive Materials Bureau
2044A Galisteo Street
Santa Fe, NM 87505

Certified Mail No. Z 729 721 019

SUBJECT: Quarterly Progress Report

Dear Mr. Garcia:

In compliance with Philips Semiconductors' HSWA permit (NMD000709782-1), modified March 18, 1996, this letter serves as the quarterly progress report as required. The following progress has been made between June 14 and September 13, 1996.

- *D.1(a) - A description of the work completed and an estimate of the percentage of work completed:* The draft RFI Workplan was submitted for review by NMED on June 14, 1996. Philips is awaiting comments on the Workplan. Quarterly groundwater monitoring completed for this period.

- *D.1(b) - Summaries of all findings, including summaries of laboratory data:* A quarterly groundwater monitoring report (PAI; August 29,1996) is included with this report for your files. This groundwater report includes analytical results for Appendix IX constituents for Philips' monitoring wells MW-1, MW-2, MW-3, and MW-4. The constituents found in the groundwater for this effort were barium, chromium, chloromethane, dichlorodifluoromethane, and perchloroethylene. All levels found were below the NMWQCC standards for groundwater.

- *D.1(c) - Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems:* No problems to report.

- *D.1(d) - Projected work for the next reporting period:* Quarterly groundwater monitoring will continue and groundwater samples will be obtained from wells MW-1, MW-2, MW-3, and MW-4 in November 1996. Philips will be meeting with the City of Albuquerque to discuss their participation in RFI field activities associated with installing additional monitoring wells within and surrounding the former Coronado Municipal Landfill. NMED will be reviewing the draft RFI Workplan. Philips will address all NMED comments on the draft RFI Workplan when comments are received.

- *D.1(e) - Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period:*

  City of Albuquerque: No contacts during this period.
  New Mexico Environment Department: No contacts during this period.

- *D.1(f) - Changes in key project personnel during the reporting period:* Mr. Peter N. Yates has replaced Mr. Keith Hampe as the Plant Manager.

- *D.1(g) - Summaries of all changes made in implementation during the reporting period:* No changes made.

If you have any questions regarding this submission, please call our technical contact, John Kinker at (505) 858-2781. Please be aware that Ms. McKinley is still my duly authorized representative as specified in a letter from James Casey, Legal Counsel, dated 10/30/95. James Cochran, EHS Manager, is also authorized to act as my representative for this RFI work.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Peter N. Yates
Plant Manager

(ENV637)

Enclosure

cc: Jim Cochran, EHS Manager
James Casey, Legal Counsel

PAI

PROFESSIONAL ANALYSIS, INC.

2155 Louisiana Blvd., NE, Suite 2100
Albuquerque, New Mexico 87110

Telephone (505) 883-0942
Fax (505) 883-1840

August 29, 1996

Mr. David Paulson
Philips Semiconductors
9201 Pan American Freeway, NE
Albuquerque, NM 87113

Re: Philips Semiconductors Quarterly Groundwater Monitoring Results

Dear Mr. Paulson:

Philips Semiconductors (Philips) contracted Professional Analysis, Inc. (PAI) to collect groundwater samples from four groundwater monitoring wells located on Philips property. The groundwater sampling was completed on July 17, 1996. This report documents the sampling event and presents the results of the laboratory analyses.

Activities related to the sampling event were periodically overseen by personnel from Philips' Environment, Health and Safety department. Mary Robinson and Greg Bybee of PAI were responsible for the actual sampling.

Methodologies

Prior to the start of sampling activities, Philips personnel unlocked the four wells and provided PAI with equipment needed to operate the well pumps (compressed gas cylinders and a pump controller), as well as four 55-gallon drums located at each well in which to pour the purge water. PAI provided the remaining equipment and sampling supplies.

PAI used a MiniRAE photoionization detector (PID) to measure ambient organic vapor concentrations, until each well was reached and a headspace sample could be measured. PAI attempted to measure the depth to water at each well and observed that the depths to water appeared to correspond with historical values. PAI purged three well volumes at each well before collecting samples in containers provided by Quanterra, Inc. (Quanterra) appropriate for the contaminants being analyzed. Temperature and pH were measured before the samples were collected.

Laboratory Analysis

PAI contracted with Quanterra in Arvada, Colorado, to perform the chemical analysis of the groundwater samples collected by PAI. Quanterra used EPA-approved laboratory methods 524.2, 8270, 8080A, and 6010 to determine the presence of all chemicals of concern. Attachment 1 contains Quanterra's analytical report. Results of the analyses are summarized in the following table (Table 1) and briefly discussed in the following section.

Table 1
Summary of Analytical Results from
Philips Semiconductor Groundwater Samples

Sample*	VOCs	Concentration
MW-1A	tetrachloroethene	7.7 µg/L
MW-2A	chloromethane tetrachloroethene	4.4 µg/L 7.1 µg/L
MW-3	ND	--
MW-4	dichlorodifluoromethane tetrachloroethene	1.3 µg/L 4.7 µg/L
MW-4 Duplicate	dichlorodifluoromethane tetrachloroethene	1.2 µg/L 4.6 µg/L
Field Blank	ND	--
Trip Blank	ND	--
Sample	**SVOCs**	**Concentration**
MW-1A	ND	--
MW-2A	ND	--
MW-3	ND	--
MW-4	ND	--
MW-4 Duplicate	ND	--
Sample	**Chlorinated Pesticides/PCBs**	**Concentration**
MW-1A	ND	--
MW-2A	ND	--
MW-3	ND	--
MW-4	ND	--
MW-4 Duplicate	ND	--
Sample	**Total Metals**	**Concentration**
MW-1	barium chromium	0.18 mg/L 0.013 mg/L
MW-2	barium	0.10 mg/L
MW-3	barium	0.053 mg/L
MW-4	barium	0.14 mg/L
MW-4 Duplicate	barium	0.14 mg/L

*MW = Monitoring Well

Findings

Water samples were collected for laboratory analysis immediately after the purging of each well. No unusual color or odor was observed during collection of water samples from the wells.

Organic vapors at the level of 4.7 parts per million (ppm) were detected with the PID in the headspace of MW-1. Consistent with historical findings, MW-1, MW-2, and MW-4 contained tetrachloroethene (or PCE) in the range of 4.6 micrograms per liter (µg/L) to 7.7 µg/L. Additional contaminants detected above reporting limits included chloromethane in MW-2 (4.4µg/L) and dichlorodifluoromethane in MW-4 (1.3 µg/L). No semivolatile organic compounds (SVOCs) or chlorinated pesticides/polychlorinated biphenyls (PCBs) were detected in any of the wells. Total metals were also analyzed, and all of the wells contained barium in the

range of 0.053 milligrams per liter (mg/L) to 0.18 mg/L. MW-1 contained 0.013 mg/L of total chromium.

Data Quality Assessment

PAI has reviewed Quanterra's report for compliance with Level III data quality objectives, including holding times, surrogate recoveries, and matrix spike/matrix spike duplicate (MS/MSD) recoveries and relative percent differences. All of the analyses were performed within the established or accepted holding times for sample extraction and analysis. Surrogate and MS/MSD recoveries and MS/MSD relative percent differences are within the limits established by EPA for the particular methods.

Conclusions

Analytical results indicate the presence of tetrachloroethene in three wells (MW-1, MW-2, and MW-4). It is our understanding that this compound has been detected in samples collected from these wells in the past.

Chloromethane was detected in the sample collected from monitor well MW-2, and dichlorodifluoromethane (a chlorofluorocarbon, or CFC) was detected in the sample collected from monitor well MW-4. The analysis also indicated a concentration of 0.013 mg/L of total chromium in the sample collected from monitor well MW-1. In each case, the analyses provide a single data point. Additionally, the direction of groundwater flow at the site has not been established; therefore, available information is not sufficient to draw conclusions regarding issues such as contaminant source or the extent of migration. Further, it is our opinion that the nature of these compounds do not in themselves provide conclusive evidence of the source of contamination.

Barium was detected at low concentrations in samples collected from all four wells. Barium occurs naturally in some soils, and the detection of this element in all samples may indicate that it is a characteristic constituent of the site.

Recommendations

A RCRA Facility Investigation (RFI) Work Plan has been submitted to the New Mexico Environment Department (NMED) by Philips Semiconductors for review and approval. It is our understanding that NMED has required quarterly sampling of the existing monitor wells until such time as the RFI Work Plan is approved and work on the RFI begins. All potential contaminants detected in the analysis of samples collected by PAI in July 1996 were found to be present in low concentrations. Based on this information, it is our recommendation that further investigation of contamination at the Philips Semiconductor site be limited to the sampling specified by NMED, and review of analytical data to observe any trends that may develop over time. This should continue until the approval and implementation of the RFI Work Plan. PAI does not recommend performance of activities in addition to the periodic sampling and analysis required by NMED before the RFI Work Plan is approved. If continued detection of chromium is observed, it may be prudent to characterize the particular form (hexavalent, etc.) of this contaminant.

If you have any questions or comments, please contact me at (505) 883-0942.

Sincerely,

J. Shield Wallace, Ph.D.
Program Manager/Senior Scientist

Attachment

Quanterra
Environmental Services

ANALYTICAL RESULTS

FOR

PROFESSIONAL ANALYSIS, INC.

QUANTERRA NO. 050246

AUGUST 7, 1996

Reviewed by: Tony Ciacco

PHLS 3c

Quanterra
Environmental Services

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Standard Deliverable

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Quanterra
Environmental Services

LIMs Report Key

Section	Description
Cover Letter	Signature page, report narrative as applicable.
Sample Description Information	Tabulated cross-reference between the Lab ID and Client ID, including matrix, date and time sampled, and the date received for all samples in the project.
Sample Analysis Results Sheets	Lists sample results, test components, reporting limits, dates prepared and analyzed, and any data qualifiers. Pages are organized by test.
QC LOT Assignment Report	Cross-reference between lab IDs and applicable QC batches (DCS, LCS, Blank, MS/SD, DU)
Duplicate Control Sample Report	Percent recovery and RPD results, with acceptance limits, for the laboratory duplicate control samples for each test are tabulated in this report. These are measures of accuracy and precision for each test. Acceptance limits are based upon laboratory historical data.
Laboratory Control Sample Report	Percent recovery results for a single Laboratory Control Sample (if applicable) are tabulated in this report, with the applicable acceptance limits for each test.
Matrix Spike/Matrix Spike Duplicate Report	Percent recovery and RPD results for matrix-specific QC samples and acceptance limits, where applicable. This report can be used to assess matrix effects on an analysis.
Single Control Sample Report	A tabulation of the surrogate recoveries for the blank for organic analyses.
Method Blank Report	A summary of the results of the analysis of the method blank for each test.

List of Abbreviations and Terms

Abbreviation	Term	Abbreviation	Term
DCS	Duplicate Control Sample	MSD	Matrix Spike Duplicate
DU	Sample Duplicate	QC Run	Preparation Batch
EB	Equipment Blank	QC Category	LIMs QC Category
FB	Field Blank	QC Lot	DCS Batch
FD	Field Duplicate	ND	Not Detected at or above the reporting limit expressed
IDL	Instrument Detection Limit (Metals)	QC Matrix	Matrix of the laboratory control sample(s)
LCS	Laboratory Control Sample	RL	Reporting Limit
MB	Method Blank	QC	Quality Control
MDL	Method Detection Limit	SA	Sample
MS	Matrix Spike	SD	Spike Duplicate
RPD	Relative Percent Difference	TB	Trip Blank
ppm (part-per-million)	mg/L or mg/kg (usually)	ppb (part-per-billion)	ug/L or ug/kg (usually)
QUAL	Qualifier flag	DIL	Dilution Factor

Quanterra
Environmental Services

ANALYTICAL TEST REQUESTS
for
Professional Analysis, Inc.

Lab ID: 050246	Group Code	Analysis Description	Custom Test?
0001 - 0002	A	Appendix IX Metals (Total) done by ICP	N
		Prep - Total Metals, ICP	N
		ICP Metals (Total) by Trace ICP	N
		Mercury, Cold Vapor AA (Total)	N
		Prep - Mercury, Cold Vapor AA (Total)	N
0003 - 0004	B	Appendix IX Metals (Total) done by ICP	N
		Prep - Total Metals, ICP	N
		ICP Metals (Total) by Trace ICP	N
		Mercury, Cold Vapor AA (Total)	N
		Prep - Mercury, Cold Vapor AA (Total)	N
		Volatile Organics	N
		Prep-Volatile Organics by GC/MS	N
		Semivolatile Organics Appendix IX List	N
		Prep - Semivolatile Organics by GC/MS	N
		Chlorinated Pesticides and PCB's Appendix IX List	N
		Prep - Organochlorine Pesticides/PCBs by GC (Appendix IX)	N
0005 - 0009	C	Volatile Organics	N
		Prep-Volatile Organics by GC/MS	N

Analytical Results

The analytical results for this project are presented in the following data tables. Each data table includes sample identification information, and when available and appropriate, dates sampled, received, authorized, prepared and analyzed. The authorization data is the date when the project was defined by the client such that laboratory work could begin.

Data sheets contain a listing of the parameters measured in each test, the analytical results and the Quanterra reporting limit. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e. no correction is made for moisture content.

The results from the Standard Quanterra QA/QC Program, which generates data which are independent of matrix effects, are provided subsequently.

Quanterra Environmental Services

(cont.)

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

Surrogate	Recovery		Limits
Toluene-d8	100	%	70-130
4-Bromofluorobenzene	106	%	70-130
1,2-Dichloroethane-d4	96	%	70-130

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	1.3	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

(cont.)

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	4.7	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

Surrogate	Recovery		Limits
Toluene-d8	103	%	70-130
4-Bromofluorobenzene	106	%	70-130
1,2-Dichloroethane-d4	100	%	70-130

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 18 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	1.2	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

(cont.)

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	4.6	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

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

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: FIEtD BLANK
Lab ID: 050246-0005-FB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

(cont.)

Client Name: Professional Analysis, Inc.
Client ID: FIELD BLANK
Lab ID: 050246-0005-FB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

Surrogate	Recovery		Limits
Toluene-d8	101	%	70-130
4-Bromofluorobenzene	103	%	70-130
1,2-Dichloroethane-d4	98	%	70-130

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: TRIP BLANK
Lab ID: 050246-0006-TB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

(cont.)

Client Name: Professional Analysis, Inc.
Client ID: TRIP BLANK
Lab ID: 050246-0006-TB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

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

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 18 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith Approved By: Kristin Tollefson

Quanterra Environmental Services

(cont.)

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 18 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	7.7	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

Surrogate	Recovery		Limits
Toluene-d8	100	%	70-130
4-Bromofluorobenzene	103	%	70-130
1,2-Dichloroethane-d4	100	%	70-130

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 17 JUL 96
Received: 18 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	4.4	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

(cont.)

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS Sampled: 17 JUL 96 Prepared: 18 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	7.1	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

Surrogate	Recovery		Limits
Toluene-d8	103	%	70-130
4-Bromofluorobenzene	102	%	70-130
1,2-Dichloroethane-d4	99	%	70-130

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith Approved By: Kristin Tollefson

Quanterra Environmental Services

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: FIELD BLANK
Lab ID: 050246-0009-FB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 17 JUL 96
Received: 18 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0
Methylene chloride	ND	ug/L	1.0
Naphthalene	ND	ug/L	1.0

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

(cont.)

Volatile Organics
Method 524.2

Client Name: Professional Analysis, Inc.
Client ID: FIEED BLANK
Lab ID: 050246-0009-FB
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 17 JUL 96
Received: 18 JUL 96

Prepared: 18 JUL 96
Analyzed: 23 JUL 96

Parameter	Result	Units	Reporting Limit
n-Propylbenzene	ND	ug/L	1.0
Styrene	ND	ug/L	1.0
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Toluene	ND	ug/L	1.0
1,2,3-Trichlorobenzene	ND	ug/L	1.0
1,2,4-Trichlorobenzene	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	1.0
1,1,2-Trichloroethane	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Trichlorofluoromethane	ND	ug/L	1.0
1,2,3-Trichloropropane	ND	ug/L	1.0
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0

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

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Paul Smith

Approved By: Kristin Tollefson

Quanterra Environmental Services

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	9.5
Acenaphthylene	ND	ug/L	9.5
Acetophenone	ND	ug/L	9.5
2-Acetylaminofluorene	ND	ug/L	95
4-Aminobiphenyl	ND	ug/L	9.5
Aniline	ND	ug/L	9.5
Anthracene	ND	ug/L	9.5
Aramite	ND	ug/L	9.5
Benzo(a)anthracene	ND	ug/L	9.5
Benzo(b)fluoranthene	ND	ug/L	9.5
Benzo(k)fluoranthene	ND	ug/L	9.5
Benzo(g,h,i)perylene	ND	ug/L	9.5
Benzo(a)pyrene	ND	ug/L	9.5
Benzyl alcohol	ND	ug/L	9.5
4-Bromophenyl phenyl ether	ND	ug/L	9.5
Butyl benzyl phthalate	ND	ug/L	9.5
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	9.5
4-Chloroaniline	ND	ug/L	9.5
bis(2-Chloroethoxy)methane	ND	ug/L	9.5
bis(2-Chloroethyl) ether	ND	ug/L	9.5
bis(2-Chloroisopropyl)ether	ND	ug/L	9.5
4-Chloro-3-methylphenol	ND	ug/L	9.5
2-Chloronaphthalene	ND	ug/L	9.5
2-Chlorophenol	ND	ug/L	9.5
4-Chlorophenyl phenyl ether	ND	ug/L	9.5
Chrysene	ND	ug/L	9.5
Dibenz(a,h)anthracene	ND	ug/L	9.5
Dibenzofuran	ND	ug/L	9.5
Di-n-butyl phthalate	ND	ug/L	9.5
1,2-Dichlorobenzene	ND	ug/L	9.5
1,3-Dichlorobenzene	ND	ug/L	9.5
1,4-Dichlorobenzene	ND	ug/L	9.5
3,3'-Dichlorobenzidine	ND	ug/L	19
2,4-Dichlorophenol	ND	ug/L	9.5
2,6-Dichlorophenol	ND	ug/L	9.5
Diethyl phthalate	ND	ug/L	9.5
Dimethoate	ND	ug/L	47
p-Dimethylaminoazobenzene	ND	ug/L	9.5
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	9.5
3,3'-Dimethylbenzidine	ND	ug/L	9.5
a,a-Dimethylphenethyl-amine	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
2,4-Dimethylphenol	ND	ug/L	9.5
Dimethyl phthalate	ND	ug/L	9.5
1,3-Dinitrobenzene	ND	ug/L	9.5
4,6-Dinitro-2-methylphenol	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	47
2,4-Dinitrotoluene	ND	ug/L	9.5
2,6-Dinitrotoluene	ND	ug/L	9.5
Di-n-octyl phthalate	ND	ug/L	9.5
Diphenylamine	ND	ug/L	9.5
Disulfoton	ND	ug/L	47
bis(2-Ethylhexyl)phthalate	ND	ug/L	9.5
Ethyl methanesulfonate	ND	ug/L	9.5
Famphur	ND	ug/L	47
Fluoranthene	ND	ug/L	9.5
Fluorene	ND	ug/L	9.5
Hexachlorobenzene	ND	ug/L	9.5
Hexachlorobutadiene	ND	ug/L	9.5
Hexachlorocyclopentadiene	ND	ug/L	9.5
Hexachloroethane	ND	ug/L	9.5
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	9.5
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.5
Isophorone	ND	ug/L	9.5
Isosafrole	ND	ug/L	19
Methapyrilene	ND	ug/L	9.5
3-Methylcholanthrene	ND	ug/L	9.5
Methyl methanesulfonate	ND	ug/L	9.5
2-Methylnaphthalene	ND	ug/L	9.5
Methyl parathion	ND	ug/L	47
2-Methylphenol	ND	ug/L	9.5
3/4-Methylphenol	ND	ug/L	9.5
Naphthalene	ND	ug/L	9.5
1,4-Naphthoquinone	ND	ug/L	9.5
1-Naphthylamine	ND	ug/L	9.5
2-Naphthylamine	ND	ug/L	9.5
2-Nitroaniline	ND	ug/L	47
3-Nitroaniline	ND	ug/L	47
4-Nitroaniline	ND	ug/L	47
Nitrobenzene	ND	ug/L	9.5
2-Nitrophenol	ND	ug/L	9.5
4-Nitrophenol	ND	ug/L	47

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
4-Nitroquinoline-1-oxide	ND	ug/L	95
N-Nitroso-di-n-butylamine	ND	ug/L	9.5
N-Nitrosodiethylamine	ND	ug/L	9.5
N-Nitrosodimethylamine	ND	ug/L	9.5
N-Nitrosodiphenylamine	ND	ug/L	9.5
N-Nitroso-di-n-propylamine	ND	ug/L	9.5
N-Nitrosomethylethylamine	ND	ug/L	9.5
N-Nitrosomorpholine	ND	ug/L	9.5
N-Nitrosopiperidine	ND	ug/L	9.5
N-Nitrosopyrrolidine	ND	ug/L	9.5
5-Nitro-o-toluidine	ND	ug/L	9.5
Parathion	ND	ug/L	47
Pentachlorobenzene	ND	ug/L	9.5
Pentachloroethane	ND	ug/L	9.5
Pentachloronitrobenzene	ND	ug/L	47
Pentachlorophenol	ND	ug/L	47
Phenacetin	ND	ug/L	9.5
Phenanthrene	ND	ug/L	9.5
Phenol	ND	ug/L	9.5
4-Phenylenediamine	ND	ug/L	95
Phorate	ND	ug/L	95
2-Picoline	ND	ug/L	9.5
Pronamide	ND	ug/L	9.5
Pyrene	ND	ug/L	9.5
Pyridine	ND	ug/L	19
Safrole	ND	ug/L	9.5
Sulfotepp	ND	ug/L	47
1,2,4,5-Tetrachloro-benzene	ND	ug/L	9.5
2,3,4,6-Tetrachlorophenol	ND	ug/L	47
Thionazin	ND	ug/L	47
2-Toluidine	ND	ug/L	9.5
1,2,4-Trichlorobenzene	ND	ug/L	9.5
2,4,5-Trichlorophenol	ND	ug/L	47
2,4,6-Trichlorophenol	ND	ug/L	9.5
0,0,0-Triethylphosphoro-thioate	ND	ug/L	9.5
1,3,5-Trinitrobenzene	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 17 JUL 96

Prepared: 23 JUL 96
Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Surrogate	**Recovery**		**Limits**
Nitrobenzene-d5	76	%	35-114
2-Fluorobiphenyl	62	%	43-116
Terphenyl-d14	75	%	33-141
Phenol-d5	76	%	54-105
2-Fluorophenol	73	%	21-100
2,4,6-Tribromophenol	77	%	10-123

Dilution factor is 0.95. All results and limits are corrected for dilution.

Reported By: Deneen Spence

Approved By: Linnet Ohanlon

Quanterra Environmental Services

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	9.5
Acenaphthylene	ND	ug/L	9.5
Acetophenone	ND	ug/L	9.5
2-Acetylaminofluorene	ND	ug/L	95
4-Aminobiphenyl	ND	ug/L	9.5
Aniline	ND	ug/L	9.5
Anthracene	ND	ug/L	9.5
Aramite	ND	ug/L	9.5
Benzo(a)anthracene	ND	ug/L	9.5
Benzo(b)fluoranthene	ND	ug/L	9.5
Benzo(k)fluoranthene	ND	ug/L	9.5
Benzo(g,h,i)perylene	ND	ug/L	9.5
Benzo(a)pyrene	ND	ug/L	9.5
Benzyl alcohol	ND	ug/L	9.5
4-Bromophenyl phenyl ether	ND	ug/L	9.5
Butyl benzyl phthalate	ND	ug/L	9.5
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	9.5
4-Chloroaniline	ND	ug/L	9.5
bis(2-Chloroethoxy)methane	ND	ug/L	9.5
bis(2-Chloroethyl) ether	ND	ug/L	9.5
bis(2-Chloroisopropyl)ether	ND	ug/L	9.5
4-Chloro-3-methylphenol	ND	ug/L	9.5
2-Chloronaphthalene	ND	ug/L	9.5
2-Chlorophenol	ND	ug/L	9.5
4-Chlorophenyl phenyl ether	ND	ug/L	9.5
Chrysene	ND	ug/L	9.5
Dibenz(a,h)anthracene	ND	ug/L	9.5
Dibenzofuran	ND	ug/L	9.5
Di-n-butyl phthalate	ND	ug/L	9.5
1,2-Dichlorobenzene	ND	ug/L	9.5
1,3-Dichlorobenzene	ND	ug/L	9.5
1,4-Dichlorobenzene	ND	ug/L	9.5
3,3'-Dichlorobenzidine	ND	ug/L	19
2,4-Dichlorophenol	ND	ug/L	9.5
2,6-Dichlorophenol	ND	ug/L	9.5
Diethyl phthalate	ND	ug/L	9.5
Dimethoate	ND	ug/L	47
p-Dimethylaminoazobenzene	ND	ug/L	9.5
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	9.5
3,3'-Dimethylbenzidine	ND	ug/L	9.5
a,a-Dimethylphenethyl-amine	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
2,4-Dimethylphenol	ND	ug/L	9.5
Dimethyl phthalate	ND	ug/L	9.5
1,3-Dinitrobenzene	ND	ug/L	9.5
4,6-Dinitro-2-methylphenol	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	47
2,4-Dinitrotoluene	ND	ug/L	9.5
2,6-Dinitrotoluene	ND	ug/L	9.5
Di-n-octyl phthalate	ND	ug/L	9.5
Diphenylamine	ND	ug/L	9.5
Disulfoton	ND	ug/L	47
bis(2-Ethylhexyl)phthalate	ND	ug/L	9.5
Ethyl methanesulfonate	ND	ug/L	9.5
Famphur	ND	ug/L	47
Fluoranthene	ND	ug/L	9.5
Fluorene	ND	ug/L	9.5
Hexachlorobenzene	ND	ug/L	9.5
Hexachlorobutadiene	ND	ug/L	9.5
Hexachlorocyclopentadiene	ND	ug/L	9.5
Hexachloroethane	ND	ug/L	9.5
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	9.5
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.5
Isophorone	ND	ug/L	9.5
Isosafrole	ND	ug/L	19
Methapyrilene	ND	ug/L	9.5
3-Methylcholanthrene	ND	ug/L	9.5
Methyl methanesulfonate	ND	ug/L	9.5
2-Methylnaphthalene	ND	ug/L	9.5
Methyl parathion	ND	ug/L	47
2-Methylphenol	ND	ug/L	9.5
3/4-Methylphenol	ND	ug/L	9.5
Naphthalene	ND	ug/L	9.5
1,4-Naphthoquinone	ND	ug/L	9.5
1-Naphthylamine	ND	ug/L	9.5
2-Naphthylamine	ND	ug/L	9.5
2-Nitroaniline	ND	ug/L	47
3-Nitroaniline	ND	ug/L	47
4-Nitroaniline	ND	ug/L	47
Nitrobenzene	ND	ug/L	9.5
2-Nitrophenol	ND	ug/L	9.5
4-Nitrophenol	ND	ug/L	47

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
4-Nitroquinoline-1-oxide	ND	ug/L	95
N-Nitroso-di-n-butylamine	ND	ug/L	9.5
N-Nitrosodiethylamine	ND	ug/L	9.5
N-Nitrosodimethylamine	ND	ug/L	9.5
N-Nitrosodiphenylamine	ND	ug/L	9.5
N-Nitroso-di-n-propylamine	ND	ug/L	9.5
N-Nitrosomethylethylamine	ND	ug/L	9.5
N-Nitrosomorpholine	ND	ug/L	9.5
N-Nitrosopiperidine	ND	ug/L	9.5
N-Nitrosopyrrolidine	ND	ug/L	9.5
5-Nitro-o-toluidine	ND	ug/L	9.5
Parathion	ND	ug/L	47
Pentachlorobenzene	ND	ug/L	9.5
Pentachloroethane	ND	ug/L	9.5
Pentachloronitrobenzene	ND	ug/L	47
Pentachlorophenol	ND	ug/L	47
Phenacetin	ND	ug/L	9.5
Phenanthrene	ND	ug/L	9.5
Phenol	ND	ug/L	9.5
4-Phenylenediamine	ND	ug/L	95
Phorate	ND	ug/L	95
2-Picoline	ND	ug/L	9.5
Pronamide	ND	ug/L	9.5
Pyrene	ND	ug/L	9.5
Pyridine	ND	ug/L	19
Safrole	ND	ug/L	9.5
Sulfotepp	ND	ug/L	47
1,2,4,5-Tetrachloro-benzene	ND	ug/L	9.5
2,3,4,6-Tetrachlorophenol	ND	ug/L	47
Thionazin	ND	ug/L	47
2-Toluidine	ND	ug/L	9.5
1,2,4-Trichlorobenzene	ND	ug/L	9.5
2,4,5-Trichlorophenol	ND	ug/L	47
2,4,6-Trichlorophenol	ND	ug/L	9.5
0,0,0-Triethylphosphoro-thioate	ND	ug/L	9.5
1,3,5-Trinitrobenzene	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Surrogate	Recovery		Limits
Nitrobenzene-d5	63	%	35-114
2-Fluorobiphenyl	52	%	43-116
Terphenyl-d14	66	%	33-141
Phenol-d5	65	%	54-105
2-Fluorophenol	61	%	21-100
2,4,6-Tribromophenol	65	%	10-123

Dilution factor is 0.95. All results and limits are corrected for dilution.

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	9.5
Acenaphthylene	ND	ug/L	9.5
Acetophenone	ND	ug/L	9.5
2-Acetylaminofluorene	ND	ug/L	95
4-Aminobiphenyl	ND	ug/L	9.5
Aniline	ND	ug/L	9.5
Anthracene	ND	ug/L	9.5
Aramite	ND	ug/L	9.5
Benzo(a)anthracene	ND	ug/L	9.5
Benzo(b)fluoranthene	ND	ug/L	9.5
Benzo(k)fluoranthene	ND	ug/L	9.5
Benzo(g,h,i)perylene	ND	ug/L	9.5
Benzo(a)pyrene	ND	ug/L	9.5
Benzyl alcohol	ND	ug/L	9.5
4-Bromophenyl phenyl ether	ND	ug/L	9.5
Butyl benzyl phthalate	ND	ug/L	9.5
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	9.5
4-Chloroaniline	ND	ug/L	9.5
bis(2-Chloroethoxy)methane	ND	ug/L	9.5
bis(2-Chloroethyl) ether	ND	ug/L	9.5
bis(2-Chloroisopropyl)ether	ND	ug/L	9.5
4-Chloro-3-methylphenol	ND	ug/L	9.5
2-Chloronaphthalene	ND	ug/L	9.5
2-Chlorophenol	ND	ug/L	9.5
4-Chlorophenyl phenyl ether	ND	ug/L	9.5
Chrysene	ND	ug/L	9.5
Dibenz(a,h)anthracene	ND	ug/L	9.5
Dibenzofuran	ND	ug/L	9.5
Di-n-butyl phthalate	ND	ug/L	9.5
1,2-Dichlorobenzene	ND	ug/L	9.5
1,3-Dichlorobenzene	ND	ug/L	9.5
1,4-Dichlorobenzene	ND	ug/L	9.5
3,3'-Dichlorobenzidine	ND	ug/L	19
2,4-Dichlorophenol	ND	ug/L	9.5
2,6-Dichlorophenol	ND	ug/L	9.5
Diethyl phthalate	ND	ug/L	9.5
Dimethoate	ND	ug/L	47
p-Dimethylaminoazobenzene	ND	ug/L	9.5
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	9.5
3,3'-Dimethylbenzidine	ND	ug/L	9.5
a,a-Dimethylphenethyl-amine	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
2,4-Dimethylphenol	ND	ug/L	9.5
Dimethyl phthalate	ND	ug/L	9.5
1,3-Dinitrobenzene	ND	ug/L	9.5
4,6-Dinitro-2-methylphenol	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	47
2,4-Dinitrotoluene	ND	ug/L	9.5
2,6-Dinitrotoluene	ND	ug/L	9.5
Di-n-octyl phthalate	ND	ug/L	9.5
Diphenylamine	ND	ug/L	9.5
Disulfoton	ND	ug/L	47
bis(2-Ethylhexyl)phthalate	ND	ug/L	9.5
Ethyl methanesulfonate	ND	ug/L	9.5
Famphur	ND	ug/L	47
Fluoranthene	ND	ug/L	9.5
Fluorene	ND	ug/L	9.5
Hexachlorobenzene	ND	ug/L	9.5
Hexachlorobutadiene	ND	ug/L	9.5
Hexachlorocyclopentadiene	ND	ug/L	9.5
Hexachloroethane	ND	ug/L	9.5
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	9.5
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.5
Isophorone	ND	ug/L	9.5
Isosafrole	ND	ug/L	19
Methapyrilene	ND	ug/L	9.5
3-Methylcholanthrene	ND	ug/L	9.5
Methyl methanesulfonate	ND	ug/L	9.5
2-Methylnaphthalene	ND	ug/L	9.5
Methyl parathion	ND	ug/L	47
2-Methylphenol	ND	ug/L	9.5
3/4-Methylphenol	ND	ug/L	9.5
Naphthalene	ND	ug/L	9.5
1,4-Naphthoquinone	ND	ug/L	9.5
1-Naphthylamine	ND	ug/L	9.5
2-Naphthylamine	ND	ug/L	9.5
2-Nitroaniline	ND	ug/L	47
3-Nitroaniline	ND	ug/L	47
4-Nitroaniline	ND	ug/L	47
Nitrobenzene	ND	ug/L	9.5
2-Nitrophenol	ND	ug/L	9.5
4-Nitrophenol	ND	ug/L	47

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
4-Nitroquinoline-1-oxide	ND	ug/L	95
N-Nitroso-di-n-butylamine	ND	ug/L	9.5
N-Nitrosodiethylamine	ND	ug/L	9.5
N-Nitrosodimethylamine	ND	ug/L	9.5
N-Nitrosodiphenylamine	ND	ug/L	9.5
N-Nitroso-di-n-propylamine	ND	ug/L	9.5
N-Nitrosomethylethylamine	ND	ug/L	9.5
N-Nitrosomorpholine	ND	ug/L	9.5
N-Nitrosopiperidine	ND	ug/L	9.5
N-Nitrosopyrrolidine	ND	ug/L	9.5
5-Nitro-o-toluidine	ND	ug/L	9.5
Parathion	ND	ug/L	47
Pentachlorobenzene	ND	ug/L	9.5
Pentachloroethane	ND	ug/L	9.5
Pentachloronitrobenzene	ND	ug/L	47
Pentachlorophenol	ND	ug/L	47
Phenacetin	ND	ug/L	9.5
Phenanthrene	ND	ug/L	9.5
Phenol	ND	ug/L	9.5
4-Phenylenediamine	ND	ug/L	95
Phorate	ND	ug/L	95
2-Picoline	ND	ug/L	9.5
Pronamide	ND	ug/L	9.5
Pyrene	ND	ug/L	9.5
Pyridine	ND	ug/L	19
Safrole	ND	ug/L	9.5
Sulfotepp	ND	ug/L	47
1,2,4,5-Tetrachloro-benzene	ND	ug/L	9.5
2,3,4,6-Tetrachlorophenol	ND	ug/L	47
Thionazin	ND	ug/L	47
2-Toluidine	ND	ug/L	9.5
1,2,4-Trichlorobenzene	ND	ug/L	9.5
2,4,5-Trichlorophenol	ND	ug/L	47
2,4,6-Trichlorophenol	ND	ug/L	9.5
O,O,O-Triethylphosphoro-thioate	ND	ug/L	9.5
1,3,5-Trinitrobenzene	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 17 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Surrogate	Recovery		Limits
Nitrobenzene-d5	69	%	35-114
2-Fluorobiphenyl	56	%	43-116
Terphenyl-d14	69	%	33-141
Phenol-d5	70	%	54-105
2-Fluorophenol	66	%	21-100
2,4,6-Tribromophenol	69	%	10-123

Dilution factor is 0.95. All results and limits are corrected for dilution.

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	9.5
Acenaphthylene	ND	ug/L	9.5
Acetophenone	ND	ug/L	9.5
2-Acetylaminofluorene	ND	ug/L	95
4-Aminobiphenyl	ND	ug/L	9.5
Aniline	ND	ug/L	9.5
Anthracene	ND	ug/L	9.5
Aramite	ND	ug/L	9.5
Benzo(a)anthracene	ND	ug/L	9.5
Benzo(b)fluoranthene	ND	ug/L	9.5
Benzo(k)fluoranthene	ND	ug/L	9.5
Benzo(g,h,i)perylene	ND	ug/L	9.5
Benzo(a)pyrene	ND	ug/L	9.5
Benzyl alcohol	ND	ug/L	9.5
4-Bromophenyl phenyl ether	ND	ug/L	9.5
Butyl benzyl phthalate	ND	ug/L	9.5
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	9.5
4-Chloroaniline	ND	ug/L	9.5
bis(2-Chloroethoxy)methane	ND	ug/L	9.5
bis(2-Chloroethyl) ether	ND	ug/L	9.5
bis(2-Chloroisopropyl)ether	ND	ug/L	9.5
4-Chloro-3-methylphenol	ND	ug/L	9.5
2-Chloronaphthalene	ND	ug/L	9.5
2-Chlorophenol	ND	ug/L	9.5
4-Chlorophenyl phenyl ether	ND	ug/L	9.5
Chrysene	ND	ug/L	9.5
Dibenz(a,h)anthracene	ND	ug/L	9.5
Dibenzofuran	ND	ug/L	9.5
Di-n-butyl phthalate	ND	ug/L	9.5
1,2-Dichlorobenzene	ND	ug/L	9.5
1,3-Dichlorobenzene	ND	ug/L	9.5
1,4-Dichlorobenzene	ND	ug/L	9.5
3,3'-Dichlorobenzidine	ND	ug/L	19
2,4-Dichlorophenol	ND	ug/L	9.5
2,6-Dichlorophenol	ND	ug/L	9.5
Diethyl phthalate	ND	ug/L	9.5
Dimethoate	ND	ug/L	47
p-Dimethylaminoazobenzene	ND	ug/L	9.5
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	9.5
3,3'-Dimethylbenzidine	ND	ug/L	9.5
a,a-Dimethylphenethyl-amine	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
2,4-Dimethylphenol	ND	ug/L	9.5
Dimethyl phthalate	ND	ug/L	9.5
1,3-Dinitrobenzene	ND	ug/L	9.5
4,6-Dinitro-2-methylphenol	ND	ug/L	47
2,4-Dinitrophenol	ND	ug/L	47
2,4-Dinitrotoluene	ND	ug/L	9.5
2,6-Dinitrotoluene	ND	ug/L	9.5
Di-n-octyl phthalate	ND	ug/L	9.5
Diphenylamine	ND	ug/L	9.5
Disulfoton	ND	ug/L	47
bis(2-Ethylhexyl)phthalate	ND	ug/L	9.5
Ethyl methanesulfonate	ND	ug/L	9.5
Famphur	ND	ug/L	47
Fluoranthene	ND	ug/L	9.5
Fluorene	ND	ug/L	9.5
Hexachlorobenzene	ND	ug/L	9.5
Hexachlorobutadiene	ND	ug/L	9.5
Hexachlorocyclopentadiene	ND	ug/L	9.5
Hexachloroethane	ND	ug/L	9.5
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	9.5
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.5
Isophorone	ND	ug/L	9.5
Isosafrole	ND	ug/L	19
Methapyrilene	ND	ug/L	9.5
3-Methylcholanthrene	ND	ug/L	9.5
Methyl methanesulfonate	ND	ug/L	9.5
2-Methylnaphthalene	ND	ug/L	9.5
Methyl parathion	ND	ug/L	47
2-Methylphenol	ND	ug/L	9.5
3/4-Methylphenol	ND	ug/L	9.5
Naphthalene	ND	ug/L	9.5
1,4-Naphthoquinone	ND	ug/L	9.5
1-Naphthylamine	ND	ug/L	9.5
2-Naphthylamine	ND	ug/L	9.5
2-Nitroaniline	ND	ug/L	47
3-Nitroaniline	ND	ug/L	47
4-Nitroaniline	ND	ug/L	47
Nitrobenzene	ND	ug/L	9.5
2-Nitrophenol	ND	ug/L	9.5
4-Nitrophenol	ND	ug/L	47

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS Sampled: 16 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
4-Nitroquinoline-1-oxide	ND	ug/L	95
N-Nitroso-di-n-butylamine	ND	ug/L	9.5
N-Nitrosodiethylamine	ND	ug/L	9.5
N-Nitrosodimethylamine	ND	ug/L	9.5
N-Nitrosodiphenylamine	ND	ug/L	9.5
N-Nitroso-di-n-propylamine	ND	ug/L	9.5
N-Nitrosomethylethylamine	ND	ug/L	9.5
N-Nitrosomorpholine	ND	ug/L	9.5
N-Nitrosopiperidine	ND	ug/L	9.5
N-Nitrosopyrrolidine	ND	ug/L	9.5
5-Nitro-o-toluidine	ND	ug/L	9.5
Parathion	ND	ug/L	47
Pentachlorobenzene	ND	ug/L	9.5
Pentachloroethane	ND	ug/L	9.5
Pentachloronitrobenzene	ND	ug/L	47
Pentachlorophenol	ND	ug/L	47
Phenacetin	ND	ug/L	9.5
Phenanthrene	ND	ug/L	9.5
Phenol	ND	ug/L	9.5
4-Phenylenediamine	ND	ug/L	95
Phorate	ND	ug/L	95
2-Picoline	ND	ug/L	9.5
Pronamide	ND	ug/L	9.5
Pyrene	ND	ug/L	9.5
Pyridine	ND	ug/L	19
Safrole	ND	ug/L	9.5
Sulfotepp	ND	ug/L	47
1,2,4,5-Tetrachloro-benzene	ND	ug/L	9.5
2,3,4,6-Tetrachlorophenol	ND	ug/L	47
Thionazin	ND	ug/L	47
2-Toluidine	ND	ug/L	9.5
1,2,4-Trichlorobenzene	ND	ug/L	9.5
2,4,5-Trichlorophenol	ND	ug/L	47
2,4,6-Trichlorophenol	ND	ug/L	9.5
0,0,0-Triethylphosphoro-thioate	ND	ug/L	9.5
1,3,5-Trinitrobenzene	ND	ug/L	9.5

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Received: 18 JUL 96

Prepared: 23 JUL 96
Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Surrogate	**Recovery**		**Limits**
Nitrobenzene-d5	70	%	35-114
2-Fluorobiphenyl	60	%	43-116
Terphenyl-d14	68	%	33-141
Phenol-d5	71	%	54-105
2-Fluorophenol	68	%	21-100
2,4,6-Tribromophenol	70	%	10-123

Dilution factor is 0.95. All results and limits are corrected for dilution.

Reported By: Deneen Spence

Approved By: Linnet Ohanlon

Quanterra Environmental Services

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS Sampled: 17 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	9.6
Acenaphthylene	ND	ug/L	9.6
Acetophenone	ND	ug/L	9.6
2-Acetylaminofluorene	ND	ug/L	96
4-Aminobiphenyl	ND	ug/L	9.6
Aniline	ND	ug/L	9.6
Anthracene	ND	ug/L	9.6
Aramite	ND	ug/L	9.6
Benzo(a)anthracene	ND	ug/L	9.6
Benzo(b)fluoranthene	ND	ug/L	9.6
Benzo(k)fluoranthene	ND	ug/L	9.6
Benzo(g,h,i)perylene	ND	ug/L	9.6
Benzo(a)pyrene	ND	ug/L	9.6
Benzyl alcohol	ND	ug/L	9.6
4-Bromophenyl phenyl ether	ND	ug/L	9.6
Butyl benzyl phthalate	ND	ug/L	9.6
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	9.6
4-Chloroaniline	ND	ug/L	9.6
bis(2-Chloroethoxy)methane	ND	ug/L	9.6
bis(2-Chloroethyl) ether	ND	ug/L	9.6
bis(2-Chloroisopropyl)ether	ND	ug/L	9.6
4-Chloro-3-methylphenol	ND	ug/L	9.6
2-Chloronaphthalene	ND	ug/L	9.6
2-Chlorophenol	ND	ug/L	9.6
4-Chlorophenyl phenyl ether	ND	ug/L	9.6
Chrysene	ND	ug/L	9.6
Dibenz(a,h)anthracene	ND	ug/L	9.6
Dibenzofuran	ND	ug/L	9.6
Di-n-butyl phthalate	ND	ug/L	9.6
1,2-Dichlorobenzene	ND	ug/L	9.6
1,3-Dichlorobenzene	ND	ug/L	9.6
1,4-Dichlorobenzene	ND	ug/L	9.6
3,3'-Dichlorobenzidine	ND	ug/L	19
2,4-Dichlorophenol	ND	ug/L	9.6
2,6-Dichlorophenol	ND	ug/L	9.6
Diethyl phthalate	ND	ug/L	9.6
Dimethoate	ND	ug/L	48
p-Dimethylaminoazobenzene	ND	ug/L	9.6
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	9.6
3,3'-Dimethylbenzidine	ND	ug/L	9.6
a,a-Dimethylphenethyl-amine	ND	ug/L	9.6

Dilution factor is 0.96. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS Sampled: 17 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
2,4-Dimethylphenol	ND	ug/L	9.6
Dimethyl phthalate	ND	ug/L	9.6
1,3-Dinitrobenzene	ND	ug/L	9.6
4,6-Dinitro-2-methylphenol	ND	ug/L	48
2,4-Dinitrophenol	ND	ug/L	48
2,4-Dinitrotoluene	ND	ug/L	9.6
2,6-Dinitrotoluene	ND	ug/L	9.6
Di-n-octyl phthalate	ND	ug/L	9.6
Diphenylamine	ND	ug/L	9.6
Disulfoton	ND	ug/L	48
bis(2-Ethylhexyl)phthalate	ND	ug/L	9.6
Ethyl methanesulfonate	ND	ug/L	9.6
Famphur	ND	ug/L	48
Fluoranthene	ND	ug/L	9.6
Fluorene	ND	ug/L	9.6
Hexachlorobenzene	ND	ug/L	9.6
Hexachlorobutadiene	ND	ug/L	9.6
Hexachlorocyclopentadiene	ND	ug/L	9.6
Hexachloroethane	ND	ug/L	9.6
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	9.6
Indeno(1,2,3-cd)pyrene	ND	ug/L	9.6
Isophorone	ND	ug/L	9.6
Isosafrole	ND	ug/L	19
Methapyrilene	ND	ug/L	9.6
3-Methylcholanthrene	ND	ug/L	9.6
Methyl methanesulfonate	ND	ug/L	9.6
2-Methylnaphthalene	ND	ug/L	9.6
Methyl parathion	ND	ug/L	48
2-Methylphenol	ND	ug/L	9.6
3/4-Methylphenol	ND	ug/L	9.6
Naphthalene	ND	ug/L	9.6
1,4-Naphthoquinone	ND	ug/L	9.6
1-Naphthylamine	ND	ug/L	9.6
2-Naphthylamine	ND	ug/L	9.6
2-Nitroaniline	ND	ug/L	48
3-Nitroaniline	ND	ug/L	48
4-Nitroaniline	ND	ug/L	48
Nitrobenzene	ND	ug/L	9.6
2-Nitrophenol	ND	ug/L	9.6
4-Nitrophenol	ND	ug/L	48

Dilution factor is 0.96. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS Sampled: 17 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
4-Nitroquinoline-1-oxide	ND	ug/L	96
N-Nitroso-di-n-butylamine	ND	ug/L	9.6
N-Nitrosodiethylamine	ND	ug/L	9.6
N-Nitrosodimethylamine	ND	ug/L	9.6
N-Nitrosodiphenylamine	ND	ug/L	9.6
N-Nitroso-di-n-propylamine	ND	ug/L	9.6
N-Nitrosomethylethylamine	ND	ug/L	9.6
N-Nitrosomorpholine	ND	ug/L	9.6
N-Nitrosopiperidine	ND	ug/L	9.6
N-Nitrosopyrrolidine	ND	ug/L	9.6
5-Nitro-o-toluidine	ND	ug/L	9.6
Parathion	ND	ug/L	48
Pentachlorobenzene	ND	ug/L	9.6
Pentachloroethane	ND	ug/L	9.6
Pentachloronitrobenzene	ND	ug/L	48
Pentachlorophenol	ND	ug/L	48
Phenacetin	ND	ug/L	9.6
Phenanthrene	ND	ug/L	9.6
Phenol	ND	ug/L	9.6
4-Phenylenediamine	ND	ug/L	96
Phorate	ND	ug/L	96
2-Picoline	ND	ug/L	9.6
Pronamide	ND	ug/L	9.6
Pyrene	ND	ug/L	9.6
Pyridine	ND	ug/L	19
Safrole	ND	ug/L	9.6
Sulfotepp	ND	ug/L	48
1,2,4,5-Tetrachloro-benzene	ND	ug/L	9.6
2,3,4,6-Tetrachlorophenol	ND	ug/L	48
Thionazin	ND	ug/L	48
2-Toluidine	ND	ug/L	9.6
1,2,4-Trichlorobenzene	ND	ug/L	9.6
2,4,5-Trichlorophenol	ND	ug/L	48
2,4,6-Trichlorophenol	ND	ug/L	9.6
O,O,O-Triethylphosphoro-thioate	ND	ug/L	9.6
1,3,5-Trinitrobenzene	ND	ug/L	9.6

Dilution factor is 0.96. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

(cont.)

Semivolatile Organics
Appendix IX List
Method 8270

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS Sampled: 17 JUL 96 Prepared: 23 JUL 96
Authorized: 16 JUL 96 Received: 18 JUL 96 Analyzed: 26 JUL 96

Parameter	Result	Units	Reporting Limit
Surrogate	Recovery		Limits
Nitrobenzene-d5	70	%	35-114
2-Fluorobiphenyl	55	%	43-116
Terphenyl-d14	66	%	33-141
Phenol-d5	72	%	54-105
2-Fluorophenol	68	%	21-100
2,4,6-Tribromophenol	66	%	10-123

Dilution factor is 0.96. All results and limits are corrected for dilution.

Reported By: Deneen Spence Approved By: Linnet Ohanlon

Quanterra Environmental Services

Chlorinated Pesticides and PCB's
Appendix IX List
Method 8080A

Client Name: Professional Analysis, Inc.
Client ID: MW #3
Lab ID: 050246-0003-SA
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Prepared: 23 JUL 96
Authorized: 16 JUL 96 — Received: 17 JUL 96 — Analyzed: 27 JUL 96

Parameter	Result	Units	Reporting Limit
Aldrin	ND	ug/L	0.047
Aroclor 1016	ND	ug/L	0.94
Aroclor 1221	ND	ug/L	0.94
Aroclor 1232	ND	ug/L	0.94
Aroclor 1242	ND	ug/L	0.94
Aroclor 1248	ND	ug/L	0.94
Aroclor 1254	ND	ug/L	0.94
Aroclor 1260	ND	ug/L	0.94
alpha-BHC	ND	ug/L	0.047
beta-BHC	ND	ug/L	0.047
delta-BHC	ND	ug/L	0.047
gamma-BHC (Lindane)	ND	ug/L	0.047
alpha-Chlordane	ND	ug/L	0.047
gamma-Chlordane	ND	ug/L	0.047
Chlorobenzilate	ND	ug/L	0.94
4,4'-DDD	ND	ug/L	0.094
4,4'-DDE	ND	ug/L	0.094
4,4'-DDT	ND	ug/L	0.094
Diallate	ND	ug/L	0.94
Dieldrin	ND	ug/L	0.094
Endosulfan I	ND	ug/L	0.047
Endosulfan II	ND	ug/L	0.094
Endosulfan sulfate	ND	ug/L	0.094
Endrin	ND	ug/L	0.094
Endrin aldehyde	ND	ug/L	0.094
Heptachlor	ND	ug/L	0.047
Heptachlor epoxide	ND	ug/L	0.047
Isodrin	ND	ug/L	0.094
Kepone	ND	ug/L	2.4
Methoxychlor	ND	ug/L	0.47
Toxaphene	ND	ug/L	4.7

Surrogate	Recovery		Limits
Tetrachloro-m-xylene	83	%	54-106
Dibutyl chlorendate	90	%	56-138
Decachlorobiphenyl	90	%	65-145

Dilution factor is 0.94. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Houa Vue — Approved By: Kristin Tollefson

Quanterra Environmental Services

Chlorinated Pesticides and PCB's
Appendix IX List
Method 8080A

Client Name: Professional Analysis, Inc.
Client ID: MW #4
Lab ID: 050246-0004-SA
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Prepared: 23 JUL 96
Authorized: 16 JUL 96 — Received: 17 JUL 96 — Analyzed: 27 JUL 96

Parameter	Result	Units	Reporting Limit
Aldrin	ND	ug/L	0.048
Aroclor 1016	ND	ug/L	0.95
Aroclor 1221	ND	ug/L	0.95
Aroclor 1232	ND	ug/L	0.95
Aroclor 1242	ND	ug/L	0.95
Aroclor 1248	ND	ug/L	0.95
Aroclor 1254	ND	ug/L	0.95
Aroclor 1260	ND	ug/L	0.95
alpha-BHC	ND	ug/L	0.048
beta-BHC	ND	ug/L	0.048
delta-BHC	ND	ug/L	0.048
gamma-BHC (Lindane)	ND	ug/L	0.048
alpha-Chlordane	ND	ug/L	0.048
gamma-Chlordane	ND	ug/L	0.048
Chlorobenzilate	ND	ug/L	0.95
4,4'-DDD	ND	ug/L	0.095
4,4'-DDE	ND	ug/L	0.095
4,4'-DDT	ND	ug/L	0.095
Diallate	ND	ug/L	0.95
Dieldrin	ND	ug/L	0.095
Endosulfan I	ND	ug/L	0.048
Endosulfan II	ND	ug/L	0.095
Endosulfan sulfate	ND	ug/L	0.095
Endrin	ND	ug/L	0.095
Endrin aldehyde	ND	ug/L	0.095
Heptachlor	ND	ug/L	0.048
Heptachlor epoxide	ND	ug/L	0.048
Isodrin	ND	ug/L	0.095
Kepone	ND	ug/L	2.4
Methoxychlor	ND	ug/L	0.48
Toxaphene	ND	ug/L	4.8

Surrogate	Recovery		Limits
Tetrachloro-m-xylene	81	%	54-106
Dibutyl chlorendate	93	%	56-138
Decachlorobiphenyl	86	%	65-145

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Houa Vue — Approved By: Kristin Tollefson

Quanterra Environmental Services

Chlorinated Pesticides and PCB's
Appendix IX List
Method 8080A

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
Lab ID: 050246-0004-DU
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Prepared: 23 JUL 96
Authorized: 16 JUL 96 — Received: 17 JUL 96 — Analyzed: 27 JUL 96

Parameter	Result	Units	Reporting Limit
Aldrin	ND	ug/L	0.048
Aroclor 1016	ND	ug/L	0.95
Aroclor 1221	ND	ug/L	0.95
Aroclor 1232	ND	ug/L	0.95
Aroclor 1242	ND	ug/L	0.95
Aroclor 1248	ND	ug/L	0.95
Aroclor 1254	ND	ug/L	0.95
Aroclor 1260	ND	ug/L	0.95
alpha-BHC	ND	ug/L	0.048
beta-BHC	ND	ug/L	0.048
delta-BHC	ND	ug/L	0.048
gamma-BHC (Lindane)	ND	ug/L	0.048
alpha-Chlordane	ND	ug/L	0.048
gamma-Chlordane	ND	ug/L	0.048
Chlorobenzilate	ND	ug/L	0.95
4,4'-DDD	ND	ug/L	0.095
4,4'-DDE	ND	ug/L	0.095
4,4'-DDT	ND	ug/L	0.095
Diallate	ND	ug/L	0.95
Dieldrin	ND	ug/L	0.095
Endosulfan I	ND	ug/L	0.048
Endosulfan II	ND	ug/L	0.095
Endosulfan sulfate	ND	ug/L	0.095
Endrin	ND	ug/L	0.095
Endrin aldehyde	ND	ug/L	0.095
Heptachlor	ND	ug/L	0.048
Heptachlor epoxide	ND	ug/L	0.048
Isodrin	ND	ug/L	0.095
Kepone	ND	ug/L	2.4
Methoxychlor	ND	ug/L	0.48
Toxaphene	ND	ug/L	4.8

Surrogate	Recovery		Limits
Tetrachloro-m-xylene	79	%	54-106
Dibutyl chlorendate	94	%	56-138
Decachlorobiphenyl	87	%	65-145

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Houa Vue — Approved By: Kristin Tollefson

Quanterra Environmental Services

Chlorinated Pesticides and PCB's
Appendix IX List
Method 8080A

Client Name: Professional Analysis, Inc.
Client ID: MW #1A
Lab ID: 050246-0007-SA
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Prepared: 23 JUL 96
Authorized: 16 JUL 96 — Received: 18 JUL 96 — Analyzed: 27 JUL 96

Parameter	Result	Units	Reporting Limit
Aldrin	ND	ug/L	0.048
Aroclor 1016	ND	ug/L	0.95
Aroclor 1221	ND	ug/L	0.95
Aroclor 1232	ND	ug/L	0.95
Aroclor 1242	ND	ug/L	0.95
Aroclor 1248	ND	ug/L	0.95
Aroclor 1254	ND	ug/L	0.95
Aroclor 1260	ND	ug/L	0.95
alpha-BHC	ND	ug/L	0.048
beta-BHC	ND	ug/L	0.048
delta-BHC	ND	ug/L	0.048
gamma-BHC (Lindane)	ND	ug/L	0.048
alpha-Chlordane	ND	ug/L	0.048
gamma-Chlordane	ND	ug/L	0.048
Chlorobenzilate	ND	ug/L	0.95
4,4'-DDD	ND	ug/L	0.095
4,4'-DDE	ND	ug/L	0.095
4,4'-DDT	ND	ug/L	0.095
Diallate	ND	ug/L	0.95
Dieldrin	ND	ug/L	0.095
Endosulfan I	ND	ug/L	0.048
Endosulfan II	ND	ug/L	0.095
Endosulfan sulfate	ND	ug/L	0.095
Endrin	ND	ug/L	0.095
Endrin aldehyde	ND	ug/L	0.095
Heptachlor	ND	ug/L	0.048
Heptachlor epoxide	ND	ug/L	0.048
Isodrin	ND	ug/L	0.095
Kepone	ND	ug/L	2.4
Methoxychlor	ND	ug/L	0.48
Toxaphene	ND	ug/L	4.8

Surrogate	Recovery		Limits
Tetrachloro-m-xylene	76	%	54-106
Dibutyl chlorendate	94	%	56-138
Decachlorobiphenyl	85	%	65-145

Dilution factor is 0.95. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Houa Vue — Approved By: Kristin Tollefson

Quanterra Environmental Services

Chlorinated Pesticides and PCB's
Appendix IX List
Method 8080A

Client Name: Professional Analysis, Inc.
Client ID: MW #2A
Lab ID: 050246-0008-SA
Matrix: AQUEOUS — Sampled: 17 JUL 96 — Prepared: 24 JUL 96
Authorized: 16 JUL 96 — Received: 18 JUL 96 — Analyzed: 02 AUG 96

Parameter	Result	Units	Reporting Limit
Aldrin	ND	ug/L	0.047
Aroclor 1016	ND	ug/L	0.94
Aroclor 1221	ND	ug/L	0.94
Aroclor 1232	ND	ug/L	0.94
Aroclor 1242	ND	ug/L	0.94
Aroclor 1248	ND	ug/L	0.94
Aroclor 1254	ND	ug/L	0.94
Aroclor 1260	ND	ug/L	0.94
alpha-BHC	ND	ug/L	0.047
beta-BHC	ND	ug/L	0.047
delta-BHC	ND	ug/L	0.047
gamma-BHC (Lindane)	ND	ug/L	0.047
alpha-Chlordane	ND	ug/L	0.047
gamma-Chlordane	ND	ug/L	0.047
Chlorobenzilate	ND	ug/L	0.94
4,4'-DDD	ND	ug/L	0.094
4,4'-DDE	ND	ug/L	0.094
4,4'-DDT	ND	ug/L	0.094
Diallate	ND	ug/L	0.94
Dieldrin	ND	ug/L	0.094
Endosulfan I	ND	ug/L	0.047
Endosulfan II	ND	ug/L	0.094
Endosulfan sulfate	ND	ug/L	0.094
Endrin	ND	ug/L	0.094
Endrin aldehyde	ND	ug/L	0.094
Heptachlor	ND	ug/L	0.047
Heptachlor epoxide	ND	ug/L	0.047
Isodrin	ND	ug/L	0.094
Kepone	ND	ug/L	2.4
Methoxychlor	ND	ug/L	0.47
Toxaphene	ND	ug/L	4.7

Surrogate	Recovery		Limits
Tetrachloro-m-xylene	82	%	54-106
Dibutyl chlorendate	88	%	56-138
Decachlorobiphenyl	100	%	65-145

Dilution factor is 0.94. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Houa Vue — Approved By: Kristin Tollefson

Quanterra Environmental Services

Metals
Total Metals

Client Name: Professional Analysis, Inc.
Client ID: MW #1
LAB ID: 050246-0001-SA
Matrix: AQUEOUS — Sampled: 15 JUL 96 — Received: 16 JUL 96
Authorized: 16 JUL 96 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.060	mg/L	SW6010	18 JUL 96	19 JUL 96
Arsenic	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Barium	0.18		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Beryllium	ND		1.0	0.0020	mg/L	SW6010	18 JUL 96	19 JUL 96
Cadmium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	19 JUL 96
Chromium	0.013		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Cobalt	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Copper	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96
Lead	ND		1.0	0.0030	mg/L	SW6010	18 JUL 96	24 JUL 96
Mercury	ND		1.0	0.00020	mg/L	SW7470	25 JUL 96	26 JUL 96
Nickel	ND		1.0	0.040	mg/L	SW6010	18 JUL 96	19 JUL 96
Selenium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	24 JUL 96
Silver	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Thallium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Tin	ND		1.0	0.10	mg/L	SW6010	18 JUL 96	19 JUL 96
Vanadium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Zinc	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96

ND = Not Detected

Reported By: Patrick Carroll — Approved By: Kristina Sanchez

Quanterra Environmental Services

Metals
Total Metals

Client Name: Professional Analysis, Inc.
Client ID: MW #2
LAB ID: 050246-0002-SA
Matrix: AQUEOUS — Sampled: 15 JUL 96 — Received: 16 JUL 96
Authorized: 16 JUL 96 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.060	mg/L	SW6010	18 JUL 96	19 JUL 96
Arsenic	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Barium	0.10		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Beryllium	ND		1.0	0.0020	mg/L	SW6010	18 JUL 96	19 JUL 96
Cadmium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	19 JUL 96
Chromium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Cobalt	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Copper	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96
Lead	ND		1.0	0.0030	mg/L	SW6010	18 JUL 96	24 JUL 96
Mercury	ND		1.0	0.00020	mg/L	SW7470	25 JUL 96	26 JUL 96
Nickel	ND		1.0	0.040	mg/L	SW6010	18 JUL 96	19 JUL 96
Selenium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	24 JUL 96
Silver	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Thallium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Tin	ND		1.0	0.10	mg/L	SW6010	18 JUL 96	19 JUL 96
Vanadium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Zinc	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96

ND = Not Detected

Reported By: Patrick Carroll — Approved By: Kristina Sanchez

Quanterra Environmental Services

Metals
Total Metals

Client Name: Professional Analysis, Inc.
Client ID: MW #3
LAB ID: 050246-0003-SA
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Received: 17 JUL 96
Authorized: 16 JUL 96 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.060	mg/L	SW6010	18 JUL 96	19 JUL 96
Arsenic	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Barium	0.053		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Beryllium	ND		1.0	0.0020	mg/L	SW6010	18 JUL 96	19 JUL 96
Cadmium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	19 JUL 96
Chromium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Cobalt	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Copper	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96
Lead	ND		1.0	0.0030	mg/L	SW6010	18 JUL 96	24 JUL 96
Mercury	ND		1.0	0.00020	mg/L	SW7470	25 JUL 96	26 JUL 96
Nickel	ND		1.0	0.040	mg/L	SW6010	18 JUL 96	19 JUL 96
Selenium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	24 JUL 96
Silver	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Thallium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Tin	ND		1.0	0.10	mg/L	SW6010	18 JUL 96	19 JUL 96
Vanadium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Zinc	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96

ND = Not Detected

Reported By: Patrick Carroll — Approved By: Kristina Sanchez

Quanterra Environmental Services

Metals
Total Metals

Client Name: Professional Analysis, Inc.
Client ID: MW #4
LAB ID: 050246-0004-SA
Matrix: AQUEOUS
Authorized: 16 JUL 96

Sampled: 16 JUL 96
Prepared: See Below

Received: 17 JUL 96
Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.060	mg/L	SW6010	18 JUL 96	19 JUL 96
Arsenic	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	29 JUL 96
Barium	0.14		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Beryllium	ND		1.0	0.0020	mg/L	SW6010	18 JUL 96	19 JUL 96
Cadmium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	19 JUL 96
Chromium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Cobalt	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Copper	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96
Lead	ND		1.0	0.0030	mg/L	SW6010	18 JUL 96	29 JUL 96
Mercury	ND		1.0	0.00020	mg/L	SW7470	25 JUL 96	26 JUL 96
Nickel	ND		1.0	0.040	mg/L	SW6010	18 JUL 96	19 JUL 96
Selenium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	29 JUL 96
Silver	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Thallium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	29 JUL 96
Tin	ND		1.0	0.10	mg/L	SW6010	18 JUL 96	19 JUL 96
Vanadium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Zinc	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96

ND = Not Detected

Reported By: Patrick Carroll

Approved By: Kristina Sanchez

Quanterra Environmental Services

Metals
Total Metals

Client Name: Professional Analysis, Inc.
Client ID: MW #4 DUP
LAB ID: 050246-0004-DU
Matrix: AQUEOUS — Sampled: 16 JUL 96 — Received: 17 JUL 96
Authorized: 16 JUL 96 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.060	mg/L	SW6010	18 JUL 96	19 JUL 96
Arsenic	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Barium	0.14		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Beryllium	ND		1.0	0.0020	mg/L	SW6010	18 JUL 96	19 JUL 96
Cadmium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	19 JUL 96
Chromium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Cobalt	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Copper	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96
Lead	ND		1.0	0.0030	mg/L	SW6010	18 JUL 96	24 JUL 96
Mercury	ND		1.0	0.00020	mg/L	SW7470	25 JUL 96	26 JUL 96
Nickel	ND		1.0	0.040	mg/L	SW6010	18 JUL 96	19 JUL 96
Selenium	ND		1.0	0.0050	mg/L	SW6010	18 JUL 96	24 JUL 96
Silver	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Thallium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	24 JUL 96
Tin	ND		1.0	0.10	mg/L	SW6010	18 JUL 96	19 JUL 96
Vanadium	ND		1.0	0.010	mg/L	SW6010	18 JUL 96	19 JUL 96
Zinc	ND		1.0	0.020	mg/L	SW6010	18 JUL 96	19 JUL 96

ND = Not Detected

Reported By: Patrick Carroll — Approved By: Kristina Sanchez

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
050246-0003-SA	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0004-SA	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0004-DU	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0005-FB	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0006-TB	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0007-SA	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0008-SA	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N
050246-0009-FB	AQUEOUS	524-MOD-A	23 JUL 96-N	23 JUL 96-N

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Category: 524-MOD-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
1,1-Dichloroethane	10.0	9.46	95	81-124
Chloroform	10.0	9.96	100	81-118
Bromodichloromethane	10.0	9.93	99	81-116
Trichloroethene	10.0	9.97	100	82-115
Benzene	10.0	10.1	101	80-123
Toluene	10.0	10.3	103	83-118
Chlorobenzene	10.0	11.3	113	79-129
Ethylbenzene	10.0	11.9	119	83-131
1,3-Dichlorobenzene	10.0	11.6	116	83-126
Hexachlorobutadiene	10.0	10.5	105	76-135

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Category: 524-MOD-A				
Matrix: AQUEOUS				
QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N				
Concentration Units: ug/L				
1,2-Dichloroethane-d4	10.0	9.60	96	85-107
4-Bromofluorobenzene	10.0	10.8	108	88-119
Toluene-d8	10.0	9.85	98	91-111

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

METHOD BLANK REPORT
Volatile Organics by GC/MS

Test: 524-5242-AP
Matrix: AQUEOUS
QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N

Analyte	Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
1,3-Dichloropropane	ND	ug/L	1.0
2,2-Dichloropropane	ND	ug/L	1.0
1,1-Dichloropropene	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Ethylbenzene	ND	ug/L	1.0
Hexachlorobutadiene	ND	ug/L	1.0
Isopropylbenzene (Cumene)	ND	ug/L	1.0
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0

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

Quanterra Environmental Services

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit	
Test: 524-5242-AP Matrix: AQUEOUS QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N				
Methylene chloride	0.57	ug/L	1.0	J
Naphthalene	ND	ug/L	1.0	
n-Propylbenzene	ND	ug/L	1.0	
Styrene	ND	ug/L	1.0	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	
Tetrachloroethene	ND	ug/L	1.0	
Toluene	ND	ug/L	1.0	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	
1,1,1-Trichloroethane	ND	ug/L	1.0	
1,1,2-Trichloroethane	ND	ug/L	1.0	
Trichloroethene	ND	ug/L	1.0	
Trichlorofluoromethane	ND	ug/L	1.0	
1,2,3-Trichloropropane	ND	ug/L	1.0	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	
Vinyl chloride	ND	ug/L	1.0	
m- & p-Xylenes	ND	ug/L	1.0	
o-Xylene	ND	ug/L	1.0	
Test: 524-5242-AP Matrix: AQUEOUS QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N				
Benzene	ND	ug/L	1.0	
Bromobenzene	ND	ug/L	1.0	
Bromochloromethane	ND	ug/L	1.0	
Bromodichloromethane	ND	ug/L	1.0	
Bromoform	ND	ug/L	1.0	
Bromomethane	ND	ug/L	1.0	
n-Butylbenzene	ND	ug/L	1.0	
sec-Butylbenzene	ND	ug/L	1.0	
tert-Butylbenzene	ND	ug/L	1.0	
Carbon tetrachloride	ND	ug/L	1.0	
Chlorobenzene	ND	ug/L	1.0	
Chloroethane	ND	ug/L	1.0	
Chloroform	ND	ug/L	1.0	
Chloromethane	ND	ug/L	1.0	
2-Chlorotoluene	ND	ug/L	1.0	

Quanterra Environmental Services

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit	
Test: 524-5242-AP				
Matrix: AQUEOUS				
QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N				
4-Chlorotoluene	ND	ug/L	1.0	
Dibromochloromethane	ND	ug/L	1.0	
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0	
EDB (1,2-Dibromoethane)	ND	ug/L	1.0	
Dibromomethane	ND	ug/L	1.0	
1,2-Dichlorobenzene	ND	ug/L	1.0	
1,3-Dichlorobenzene	ND	ug/L	1.0	
1,4-Dichlorobenzene	ND	ug/L	1.0	
Dichlorodifluoromethane	ND	ug/L	1.0	
1,1-Dichloroethane	ND	ug/L	1.0	
1,2-Dichloroethane	ND	ug/L	1.0	
1,1-Dichloroethene	ND	ug/L	1.0	
cis-1,2-Dichloroethene	ND	ug/L	1.0	
trans-1,2-Dichloroethene	ND	ug/L	1.0	
1,2-Dichloropropane	ND	ug/L	1.0	
1,3-Dichloropropane	ND	ug/L	1.0	
2,2-Dichloropropane	ND	ug/L	1.0	
1,1-Dichloropropene	ND	ug/L	1.0	
cis-1,3-Dichloropropene	ND	ug/L	1.0	
trans-1,3-Dichloropropene	ND	ug/L	1.0	
Ethylbenzene	ND	ug/L	1.0	
Hexachlorobutadiene	ND	ug/L	1.0	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0	
Methylene chloride	0.57	ug/L	1.0	J
Naphthalene	ND	ug/L	1.0	
n-Propylbenzene	ND	ug/L	1.0	
Styrene	ND	ug/L	1.0	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	
Tetrachloroethene	ND	ug/L	1.0	
Toluene	ND	ug/L	1.0	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	
1,1,1-Trichloroethane	ND	ug/L	1.0	
1,1,2-Trichloroethane	ND	ug/L	1.0	
Trichloroethene	ND	ug/L	1.0	
Trichlorofluoromethane	ND	ug/L	1.0	
1,2,3-Trichloropropane	ND	ug/L	1.0	

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

Quanterra Environmental Services

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 524-5242-AP Matrix: AQUEOUS QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N			
1,2,4-Trimethylbenzene	ND	ug/L	1.0
1,3,5-Trimethylbenzene	ND	ug/L	1.0
Vinyl chloride	ND	ug/L	1.0
m- & p-Xylenes	ND	ug/L	1.0
o-Xylene	ND	ug/L	1.0
Test: 524-5242-AP Matrix: AQUEOUS QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N			
Benzene	ND	ug/L	1.0
Bromobenzene	ND	ug/L	1.0
Bromochloromethane	ND	ug/L	1.0
Bromodichloromethane	ND	ug/L	1.0
Bromoform	ND	ug/L	1.0
Bromomethane	ND	ug/L	1.0
n-Butylbenzene	ND	ug/L	1.0
sec-Butylbenzene	ND	ug/L	1.0
tert-Butylbenzene	ND	ug/L	1.0
Carbon tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroethane	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
Chloromethane	ND	ug/L	1.0
2-Chlorotoluene	ND	ug/L	1.0
4-Chlorotoluene	ND	ug/L	1.0
Dibromochloromethane	ND	ug/L	1.0
DBCP (1,2-Dibromo-3-chloropropane)	ND	ug/L	2.0
EDB (1,2-Dibromoethane)	ND	ug/L	1.0
Dibromomethane	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
Dichlorodifluoromethane	ND	ug/L	1.0
1,1-Dichloroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
cis-1,2-Dichloroethene	ND	ug/L	1.0
trans-1,2-Dichloroethene	ND	ug/L	1.0

Quanterra Environmental Services

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)

Test: 524-5242-AP
Matrix: AQUEOUS
QC Lot: 23 JUL 96-N QC Run: 23 JUL 96-N

Analyte	Result	Units	Reporting Limit	
1,2-Dichloropropane	ND	ug/L	1.0	
1,3-Dichloropropane	ND	ug/L	1.0	
2,2-Dichloropropane	ND	ug/L	1.0	
1,1-Dichloropropene	ND	ug/L	1.0	
cis-1,3-Dichloropropene	ND	ug/L	1.0	
trans-1,3-Dichloropropene	ND	ug/L	1.0	
Ethylbenzene	ND	ug/L	1.0	
Hexachlorobutadiene	ND	ug/L	1.0	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	
p-Isopropyltoluene (p-Cymene)	ND	ug/L	1.0	
Methylene chloride	0.57	ug/L	1.0	J
Naphthalene	ND	ug/L	1.0	
n-Propylbenzene	ND	ug/L	1.0	
Styrene	ND	ug/L	1.0	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	
Tetrachloroethene	ND	ug/L	1.0	
Toluene	ND	ug/L	1.0	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	
1,1,1-Trichloroethane	ND	ug/L	1.0	
1,1,2-Trichloroethane	ND	ug/L	1.0	
Trichloroethene	ND	ug/L	1.0	
Trichlorofluoromethane	ND	ug/L	1.0	
1,2,3-Trichloropropane	ND	ug/L	1.0	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	
Vinyl chloride	ND	ug/L	1.0	
m- & p-Xylenes	ND	ug/L	1.0	
o-Xylene	ND	ug/L	1.0	

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

Quanterra Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 050246

Category: 524-MOD-A Modified Method-Drinking Water Volatiles
Matrix: AQUEOUS
Sample: 050246-0004
QC Lot: 23 JUL 96-N MS Run: 23 JUL 96-N
Units: ug/L Units Qualifier:

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS	MSD	%Recovery MS	MSD	%RPD MS-MSD
1,1-Dichloroethane	ND	9.4	9.6	10	10	94	96	2.7
Chloroform	ND	9.2	9.6	10	10	92	96	4.3
Bromodichloromethane	ND	9.7	9.9	10	10	97	99	2.3
Trichloroethene	ND	9.2	9.2	10	10	92	92	0.88
Benzene	ND	9.8	9.8	10	10	98	98	0.46
Toluene	ND	9.8	9.8	10	10	98	98	0.31
Chlorobenzene	ND	9.7	9.8	10	10	97	98	0.73
Ethylbenzene	ND	10	10	10	10	101	102	1.0
1,3-Dichlorobenzene	ND	11	10	10	10	106	104	2.7
Hexachlorobutadiene	ND	9.7	9.3	10	10	97	93	4.3

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Volatile Organics by GC/MS

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX DUPLICATE	524-5242-AP	050246-0004-DU	23 JUL 96-N

Quanterra
Environmental Services

MATRIX DUPLICATE REPORT
Volatile Organics by GC/MS

Test: 524-5242-AP
Matrix AQUEOUS
Sample: 050246-0004
Units: ug/L

Analyte	Concentration Sample	Matrix Duplicate	% RPD
Benzene	ND	ND	NC
Bromobenzene	ND	ND	NC
Bromochloromethane	ND	ND	NC
Bromodichloromethane	ND	ND	NC
Bromoform	ND	ND	NC
Bromomethane	ND	ND	NC
n-Butylbenzene	ND	ND	NC
sec-Butylbenzene	ND	ND	NC
tert-Butylbenzene	ND	ND	NC
Carbon tetrachloride	ND	ND	NC
Chlorobenzene	ND	ND	NC
Chloroethane	ND	ND	NC
Chloroform	ND	ND	NC
Chloromethane	ND	ND	NC
2-Chlorotoluene	ND	ND	NC
4-Chlorotoluene	ND	ND	NC
Dibromochloromethane	ND	ND	NC
DBCP (1,2-Dibromo-3-chloropropane)	ND	ND	NC
EDB (1,2-Dibromoethane)	ND	ND	NC
Dibromomethane	ND	ND	NC
1,2-Dichlorobenzene	ND	ND	NC
1,3-Dichlorobenzene	ND	ND	NC
1,4-Dichlorobenzene	ND	ND	NC
Dichlorodifluoromethane	1.3	1.2	10
1,1-Dichloroethane	ND	ND	NC
1,2-Dichloroethane	ND	ND	NC
1,1-Dichloroethene	ND	ND	NC
cis-1,2-Dichloroethene	ND	ND	NC
trans-1,2-Dichloroethene	ND	ND	NC
1,2-Dichloropropane	ND	ND	NC
1,3-Dichloropropane	ND	ND	NC
2,2-Dichloropropane	ND	ND	NC
1,1-Dichloropropene	ND	ND	NC
cis-1,3-Dichloropropene	ND	ND	NC
trans-1,3-Dichloropropene	ND	ND	NC
Ethylbenzene	ND	ND	NC
Hexachlorobutadiene	ND	ND	NC
Isopropylbenzene (Cumene)	ND	ND	NC

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

MATRIX DUPLICATE REPORT
Volatile Organics by GC/MS (cont.)

Analyte	Concentration Sample	Matrix Duplicate	% RPD
p-Isopropyltoluene (p-Cymene)	ND	ND	NC
Methylene chloride	ND	ND	NC
Naphthalene	ND	ND	NC
n-Propylbenzene	ND	ND	NC
Styrene	ND	ND	NC
1,1,1,2-Tetrachloroethane	ND	ND	NC
1,1,2,2-Tetrachloroethane	ND	ND	NC
Tetrachloroethene	4.7	4.6	3.5
Toluene	ND	ND	NC
1,2,3-Trichlorobenzene	ND	ND	NC
1,2,4-Trichlorobenzene	ND	ND	NC
1,1,1-Trichloroethane	ND	ND	NC
1,1,2-Trichloroethane	ND	ND	NC
Trichloroethene	ND	ND	NC
Trichlorofluoromethane	ND	ND	NC
1,2,3-Trichloropropane	ND	ND	NC
1,2,4-Trimethylbenzene	ND	ND	NC
1,3,5-Trimethylbenzene	ND	ND	NC
Vinyl chloride	ND	ND	NC
m- & p-Xylenes	ND	ND	NC
o-Xylene	ND	ND	NC
Toluene-d8	103	103	0.12
4-Bromofluorobenzene	106	103	2.4
1,2-Dichloroethane-d4	100	98	1.9

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
050246-0003-SA	AQUEOUS	625-A	23 JUL 96-01	23 JUL 96-01
050246-0004-SA	AQUEOUS	625-A	23 JUL 96-01	23 JUL 96-01
050246-0004-DU	AQUEOUS	625-A	23 JUL 96-01	23 JUL 96-01
050246-0007-SA	AQUEOUS	625-A	23 JUL 96-01	23 JUL 96-01
050246-0008-SA	AQUEOUS	625-A	23 JUL 96-01	23 JUL 96-01

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Category: 625-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Phenol	100	76.6	77	45-109
2-Chlorophenol	100	80.8	81	47-111
1,4-Dichlorobenzene	50.0	27.2	54	32-103
N-Nitroso-di-n-propylamine	50.0	36.8	74	49-107
1,2,4-Trichlorobenzene	50.0	26.4	53	44-102
4-Chloro-3-methylphenol	100	76.2	76	50-115
Acenaphthene	50.0	32.3	65	47-109
4-Nitrophenol	100	73.9	74	40-127
2,4-Dinitrotoluene	50.0	42.3	85	46-118
Pentachlorophenol	100	72.1	72	30-136
Pyrene	50.0	39.9	80	52-115

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Category: 625-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Nitrobenzene-d5	100	75.5	76	49-113
2-Fluorobiphenyl	100	61.9	62	43-104
Terphenyl-d14	100	75.6	76	33-139
2-Fluorophenol	200	147	74	21- 91
Phenol-d5	200	152	76	54-105
2,4,6-Tribromophenol	200	154	77	33-123

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS

Test: 8270CP-AP9-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01

Analyte	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitro-phenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy) methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl) ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270CP-AP9-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01

Analyte	Result	Units	Reporting Limit
Dimethoate	ND	ug/L	50
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
a,a-Dimethylphenethylamine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton	ND	ug/L	50
bis(2-Ethylhexyl) phthalate	ND	ug/L	10
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	50
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270CP-AP9-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01

Analyte	Result	Units	Reporting Limit
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	100
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10
Phenol	ND	ug/L	10
4-Phenylenediamine	ND	ug/L	100
Phorate	ND	ug/L	100
2-Picoline	ND	ug/L	10
Pronamide	ND	ug/L	10
Pyrene	ND	ug/L	10
Pyridine	ND	ug/L	20
Safrole	ND	ug/L	10
Sulfotepp	ND	ug/L	50
1,2,4,5-Tetrachloro-benzene	ND	ug/L	10
2,3,4,6-Tetrachlorophenol	ND	ug/L	50
Thionazin	ND	ug/L	50

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
2-Toluidine	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2,4,6-Trichlorophenol	ND	ug/L	10
O,O,O-Triethylphosphorothioate	ND	ug/L	10
1,3,5-Trinitrobenzene	ND	ug/L	10
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitrophenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy) methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl) ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
Dimethoate	ND	ug/L	50
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
a,a-Dimethylphenethyl-amine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton	ND	ug/L	50
bis(2-Ethylhexyl) phthalate	ND	ug/L	10
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	50
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270CP-AP9-A
Matrix: AQUEOUS
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01

Analyte	Result	Units	Reporting Limit
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	100
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10

Quanterra
Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 050246

Category: 625-A Acid, Base and Neutrals by GC/MS.
Matrix: AQUEOUS
Sample: 050356-0001
QC Lot: 23 JUL 96-01 MS Run: 23 JUL 96-01
Units: ug/L Units Qualifier:

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS	MSD	%Recovery MS	MSD	%RPD MS-MSD
Phenol	ND	83	70	120	110	67	65	17
2-Chlorophenol	ND	85	71	120	110	69	66	18
1,4-Dichlorobenzene	ND	30	25	62	53	49	47	19
N-Nitroso-di-n-propylamine	ND	39	34	62	53	64	63	15
1,2,4-Trichlorobenzene	ND	30	26	62	53	49	49	14
4-Chloro-3-methylphenol	ND	79	71	120	110	64	67	10
Acenaphthene	ND	35	32	62	53	56	59	9.1
4-Nitrophenol	ND	67	56	120	110	54	53	17
2,4-Dinitrotoluene	ND	42	39	62	53	69	73	8.4
Pentachlorophenol	ND	84	75	120	110	68	70	12
Pyrene	ND	34	31	62	53	56	59	9.4

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Environmental Services

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX DUPLICATE	8270CP-AP9-A	050246-0004-DU	23 JUL 96-01

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MATRIX DUPLICATE REPORT
Semivolatile Organics by GC/MS

Analyte	Concentration Sample	Matrix Duplicate	% RPD
Test: 8270CP-AP9-A			
Matrix AQUEOUS			
Sample: 050246-0004			
Units: ug/L			
Acenaphthene	ND	ND	NC
Acenaphthylene	ND	ND	NC
Acetophenone	ND	ND	NC
2-Acetylaminofluorene	ND	ND	NC
4-Aminobiphenyl	ND	ND	NC
Aniline	ND	ND	NC
Anthracene	ND	ND	NC
Aramite	ND	ND	NC
Benzo(a)anthracene	ND	ND	NC
Benzo(b)fluoranthene	ND	ND	NC
Benzo(k)fluoranthene	ND	ND	NC
Benzo(g,h,i)perylene	ND	ND	NC
Benzo(a)pyrene	ND	ND	NC
Benzyl alcohol	ND	ND	NC
4-Bromophenyl phenyl ether	ND	ND	NC
Butyl benzyl phthalate	ND	ND	NC
2-sec-Butyl-4,6-dinitro-phenol	ND	ND	NC
4-Chloroaniline	ND	ND	NC
bis(2-Chloroethoxy) methane	ND	ND	NC
bis(2-Chloroethyl) ether	ND	ND	NC
bis(2-Chloroisopropyl) ether	ND	ND	NC
4-Chloro-3-methylphenol	ND	ND	NC
2-Chloronaphthalene	ND	ND	NC
2-Chlorophenol	ND	ND	NC
4-Chlorophenyl phenyl ether	ND	ND	NC
Chrysene	ND	ND	NC
Dibenz(a,h)anthracene	ND	ND	NC
Dibenzofuran	ND	ND	NC
Di-n-butyl phthalate	ND	ND	NC
1,2-Dichlorobenzene	ND	ND	NC
1,3-Dichlorobenzene	ND	ND	NC
1,4-Dichlorobenzene	ND	ND	NC
3,3'-Dichlorobenzidine	ND	ND	NC
2,4-Dichlorophenol	ND	ND	NC

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

MATRIX DUPLICATE REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Concentration Sample	Matrix Duplicate	% RPD
2,6-Dichlorophenol	ND	ND	NC
Diethyl phthalate	ND	ND	NC
Dimethoate	ND	ND	NC
p-Dimethylaminoazobenzene	ND	ND	NC
7,12-Dimethylbenz(a)-anthracene	ND	ND	NC
3,3'-Dimethylbenzidine	ND	ND	NC
a,a-Dimethylphenethylamine	ND	ND	NC
2,4-Dimethylphenol	ND	ND	NC
Dimethyl phthalate	ND	ND	NC
1,3-Dinitrobenzene	ND	ND	NC
4,6-Dinitro-2-methylphenol	ND	ND	NC
2,4-Dinitrophenol	ND	ND	NC
2,4-Dinitrotoluene	ND	ND	NC
2,6-Dinitrotoluene	ND	ND	NC
Di-n-octyl phthalate	ND	ND	NC
Diphenylamine	ND	ND	NC
Disulfoton	ND	ND	NC
bis(2-Ethylhexyl) phthalate	ND	ND	NC
Ethyl methanesulfonate	ND	ND	NC
Famphur	ND	ND	NC
Fluoranthene	ND	ND	NC
Fluorene	ND	ND	NC
Hexachlorobenzene	ND	ND	NC
Hexachlorobutadiene	ND	ND	NC
Hexachlorocyclopentadiene	ND	ND	NC
Hexachloroethane	ND	ND	NC
Hexachlorophene	ND	ND	NC
Hexachloropropene	ND	ND	NC
Indeno(1,2,3-cd)pyrene	ND	ND	NC
Isophorone	ND	ND	NC
Isosafrole	ND	ND	NC
Methapyrilene	ND	ND	NC
3-Methylcholanthrene	ND	ND	NC
Methyl methanesulfonate	ND	ND	NC
2-Methylnaphthalene	ND	ND	NC
Methyl parathion	ND	ND	NC
2-Methylphenol	ND	ND	NC
3/4-Methylphenol	ND	ND	NC
Naphthalene	ND	ND	NC
1,4-Naphthoquinone	ND	ND	NC
1-Naphthylamine	ND	ND	NC
2-Naphthylamine	ND	ND	NC

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

MATRIX DUPLICATE REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Concentration Sample	Matrix Duplicate	% RPD
2-Nitroaniline	ND	ND	NC
3-Nitroaniline	ND	ND	NC
4-Nitroaniline	ND	ND	NC
Nitrobenzene	ND	ND	NC
2-Nitrophenol	ND	ND	NC
4-Nitrophenol	ND	ND	NC
4-Nitroquinoline-1-oxide	ND	ND	NC
N-Nitroso-di-n-butylamine	ND	ND	NC
N-Nitrosodiethylamine	ND	ND	NC
N-Nitrosodimethylamine	ND	ND	NC
N-Nitrosodiphenylamine	ND	ND	NC
N-Nitroso-di-n-propylamine	ND	ND	NC
N-Nitrosomethylethylamine	ND	ND	NC
N-Nitrosomorpholine	ND	ND	NC
N-Nitrosopiperidine	ND	ND	NC
N-Nitrosopyrrolidine	ND	ND	NC
5-Nitro-o-toluidine	ND	ND	NC
Parathion	ND	ND	NC
Pentachlorobenzene	ND	ND	NC
Pentachloroethane	ND	ND	NC
Pentachloronitrobenzene	ND	ND	NC
Pentachlorophenol	ND	ND	NC
Phenacetin	ND	ND	NC
Phenanthrene	ND	ND	NC
Phenol	ND	ND	NC
4-Phenylenediamine	ND	ND	NC
Phorate	ND	ND	NC
2-Picoline	ND	ND	NC
Pronamide	ND	ND	NC
Pyrene	ND	ND	NC
Pyridine	ND	ND	NC
Safrole	ND	ND	NC
Sulfotepp	ND	ND	NC
1,2,4,5-Tetrachlorobenzene	ND	ND	NC
2,3,4,6-Tetrachlorophenol	ND	ND	NC
Thionazin	ND	ND	NC
2-Toluidine	ND	ND	NC
1,2,4-Trichlorobenzene	ND	ND	NC
2,4,5-Trichlorophenol	ND	ND	NC
2,4,6-Trichlorophenol	ND	ND	NC
0,0,0-Triethylphosphorothioate	ND	ND	NC
1,3,5-Trinitrobenzene	ND	ND	NC
Nitrobenzene-d5	63	69	8.6

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

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Environmental Services

MATRIX DUPLICATE REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Concentration Sample	Matrix Duplicate	% RPD
2-Fluorobiphenyl	52	56	7.7
Terphenyl-d14	66	69	4.7
Phenol-d5	65	70	6.9
2-Fluorophenol	61	66	6.9
2,4,6-Tribromophenol	65	69	5.6

All calculations are performed before rounding to avoid round-off errors in calculated results.

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Environmental Services

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
050246-0003-SA	AQUEOUS	8080-A	23 JUL 96-01	23 JUL 96-01
050246-0004-SA	AQUEOUS	8080-A	23 JUL 96-01	23 JUL 96-01
050246-0004-DU	AQUEOUS	8080-A	23 JUL 96-01	23 JUL 96-01
050246-0007-SA	AQUEOUS	8080-A	23 JUL 96-01	23 JUL 96-01
050246-0008-SA	AQUEOUS	8080-A	24 JUL 96-01	24 JUL 96-01

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Category: 8080-A Matrix: AQUEOUS QC Lot: 23 JUL 96-01 Concentration Units: ug/L								
gamma-BHC (Lindane)	0.200	0.181	0.193	0.187	94	81-117	6.4	13
Heptachlor	0.200	0.184	0.196	0.190	95	72-125	6.3	11
Aldrin	0.200	0.172	0.185	0.178	89	69-112	7.3	16
Dieldrin	0.500	0.434	0.461	0.448	90	77-111	6.0	13
Endrin	0.500	0.474	0.501	0.488	98	83-122	5.5	14
4,4'-DDT	0.500	0.455	0.481	0.468	94	76-125	5.6	14
Category: 8080-A Matrix: AQUEOUS QC Lot: 24 JUL 96-01 Concentration Units: ug/L								
gamma-BHC (Lindane)	0.200	0.190	0.190	0.190	95	81-117	0.0	13
Heptachlor	0.200	0.187	0.192	0.190	95	72-125	2.6	11
Aldrin	0.200	0.175	0.182	0.178	89	69-112	3.9	16
Dieldrin	0.500	0.465	0.464	0.464	93	77-111	0.22	13
Endrin	0.500	0.498	0.499	0.498	100	83-122	0.20	14
4,4'-DDT	0.500	0.440	0.450	0.445	89	76-125	2.2	14

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Category: 8080-A				
Matrix: AQUEOUS				
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01				
Concentration Units: ug/L				
Tetrachloro-m-xylene	1.00	0.729	73	54-106
Dibutyl chlorendate	1.00	0.973	97	56-138
Decachlorobiphenyl	0.200	0.158	79	65-145
Category: 8080-A				
Matrix: AQUEOUS				
QC Lot: 24 JUL 96-01 QC Run: 24 JUL 96-01				
Concentration Units: ug/L				
Tetrachloro-m-xylene	1.00	0.765	76	54-106
Dibutyl chlorendate	1.00	0.806	81	56-138
Decachlorobiphenyl	0.200	0.192	96	65-145

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: 8080-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
Aldrin	ND	ug/L	0.050
Aroclor 1016	ND	ug/L	1.0
Aroclor 1221	ND	ug/L	1.0
Aroclor 1232	ND	ug/L	1.0
Aroclor 1242	ND	ug/L	1.0
Aroclor 1248	ND	ug/L	1.0
Aroclor 1254	ND	ug/L	1.0
Aroclor 1260	ND	ug/L	1.0
alpha-BHC	ND	ug/L	0.050
beta-BHC	ND	ug/L	0.050
delta-BHC	ND	ug/L	0.050
gamma-BHC (Lindane)	ND	ug/L	0.050
alpha-Chlordane	ND	ug/L	0.050
gamma-Chlordane	ND	ug/L	0.050
Chlorobenzilate	ND	ug/L	1.0
4,4'-DDD	ND	ug/L	0.10
4,4'-DDE	ND	ug/L	0.10
4,4'-DDT	ND	ug/L	0.10
Diallate	ND	ug/L	1.0
Dieldrin	ND	ug/L	0.10
Endosulfan I	ND	ug/L	0.050
Endosulfan II	ND	ug/L	0.10
Endosulfan sulfate	ND	ug/L	0.10
Endrin	ND	ug/L	0.10
Endrin aldehyde	ND	ug/L	0.10
Heptachlor	ND	ug/L	0.050
Heptachlor epoxide	ND	ug/L	0.050
Isodrin	ND	ug/L	0.10
Kepone	ND	ug/L	2.5
Methoxychlor	ND	ug/L	0.50
Toxaphene	ND	ug/L	5.0
Test: 8080-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
Aldrin	ND	ug/L	0.050
Aroclor 1016	ND	ug/L	1.0
Aroclor 1221	ND	ug/L	1.0
Aroclor 1232	ND	ug/L	1.0

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8080-AP9-A			
Matrix: AQUEOUS			
QC Lot: 23 JUL 96-01 QC Run: 23 JUL 96-01			
Aroclor 1242	ND	ug/L	1.0
Aroclor 1248	ND	ug/L	1.0
Aroclor 1254	ND	ug/L	1.0
Aroclor 1260	ND	ug/L	1.0
alpha-BHC	ND	ug/L	0.050
beta-BHC	ND	ug/L	0.050
delta-BHC	ND	ug/L	0.050
gamma-BHC (Lindane)	ND	ug/L	0.050
alpha-Chlordane	ND	ug/L	0.050
gamma-Chlordane	ND	ug/L	0.050
Chlorobenzilate	ND	ug/L	1.0
4,4'-DDD	ND	ug/L	0.10
4,4'-DDE	ND	ug/L	0.10
4,4'-DDT	ND	ug/L	0.10
Diallate	ND	ug/L	1.0
Dieldrin	ND	ug/L	0.10
Endosulfan I	ND	ug/L	0.050
Endosulfan II	ND	ug/L	0.10
Endosulfan sulfate	ND	ug/L	0.10
Endrin	ND	ug/L	0.10
Endrin aldehyde	ND	ug/L	0.10
Heptachlor	ND	ug/L	0.050
Heptachlor epoxide	ND	ug/L	0.050
Isodrin	ND	ug/L	0.10
Kepone	ND	ug/L	2.5
Methoxychlor	ND	ug/L	0.50
Toxaphene	ND	ug/L	5.0
Test: 8080-AP9-A			
Matrix: AQUEOUS			
QC Lot: 24 JUL 96-01 QC Run: 24 JUL 96-01			
Aldrin	ND	ug/L	0.050
Aroclor 1016	ND	ug/L	1.0
Aroclor 1221	ND	ug/L	1.0
Aroclor 1232	ND	ug/L	1.0
Aroclor 1242	ND	ug/L	1.0
Aroclor 1248	ND	ug/L	1.0
Aroclor 1254	ND	ug/L	1.0
Aroclor 1260	ND	ug/L	1.0

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8080-AP9-A			
Matrix: AQUEOUS			
QC Lot: 24 JUL 96-01 QC Run: 24 JUL 96-01			
alpha-BHC	ND	ug/L	0.050
beta-BHC	ND	ug/L	0.050
delta-BHC	ND	ug/L	0.050
gamma-BHC (Lindane)	ND	ug/L	0.050
alpha-Chlordane	ND	ug/L	0.050
gamma-Chlordane	ND	ug/L	0.050
Chlorobenzilate	ND	ug/L	1.0
4,4'-DDD	ND	ug/L	0.10
4,4'-DDE	ND	ug/L	0.10
4,4'-DDT	ND	ug/L	0.10
Diallate	ND	ug/L	1.0
Dieldrin	ND	ug/L	0.10
Endosulfan I	ND	ug/L	0.050
Endosulfan II	ND	ug/L	0.10
Endosulfan sulfate	ND	ug/L	0.10
Endrin	ND	ug/L	0.10
Endrin aldehyde	ND	ug/L	0.10
Heptachlor	ND	ug/L	0.050
Heptachlor epoxide	ND	ug/L	0.050
Isodrin	ND	ug/L	0.10
Kepone	ND	ug/L	2.5
Methoxychlor	ND	ug/L	0.50
Toxaphene	ND	ug/L	5.0

Quanterra
Environmental Services

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Semivolatile Organics by GC

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX DUPLICATE	8080-AP9-A	050246-0004-DU	23 JUL 96-01

Quanterra Environmental Services

MATRIX DUPLICATE REPORT
Semivolatile Organics by GC

Analyte	Concentration Sample	Matrix Duplicate	% RPD
Test: 8080-AP9-A			
Matrix AQUEOUS			
Sample: 050246-0004			
Units: ug/L			
Aldrin	ND	ND	NC
Aroclor 1016	ND	ND	NC
Aroclor 1221	ND	ND	NC
Aroclor 1232	ND	ND	NC
Aroclor 1242	ND	ND	NC
Aroclor 1248	ND	ND	NC
Aroclor 1254	ND	ND	NC
Aroclor 1260	ND	ND	NC
alpha-BHC	ND	ND	NC
beta-BHC	ND	ND	NC
delta-BHC	ND	ND	NC
gamma-BHC (Lindane)	ND	ND	NC
alpha-Chlordane	ND	ND	NC
gamma-Chlordane	ND	ND	NC
Chlorobenzilate	ND	ND	NC
4,4'-DDD	ND	ND	NC
4,4'-DDE	ND	ND	NC
4,4'-DDT	ND	ND	NC
Diallate	ND	ND	NC
Dieldrin	ND	ND	NC
Endosulfan I	ND	ND	NC
Endosulfan II	ND	ND	NC
Endosulfan sulfate	ND	ND	NC
Endrin	ND	ND	NC
Endrin aldehyde	ND	ND	NC
Heptachlor	ND	ND	NC
Heptachlor epoxide	ND	ND	NC
Isodrin	ND	ND	NC
Kepone	ND	ND	NC
Methoxychlor	ND	ND	NC
Toxaphene	ND	ND	NC
Tetrachloro-m-xylene	81	79	2.0
Dibutyl chlorendate	93	94	0.21
Decachlorobiphenyl	86	87	0.92

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
050246-0001-SA	AQUEOUS	ICP-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0001-SA	AQUEOUS	ICP-TRA-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0001-SA	AQUEOUS	HG-CVAA-AT	25 JUL 96-SA	25 JUL 96-SA
050246-0002-SA	AQUEOUS	ICP-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0002-SA	AQUEOUS	ICP-TRA-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0002-SA	AQUEOUS	HG-CVAA-AT	25 JUL 96-SA	25 JUL 96-SA
050246-0003-SA	AQUEOUS	ICP-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0003-SA	AQUEOUS	ICP-TRA-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0003-SA	AQUEOUS	HG-CVAA-AT	25 JUL 96-SA	25 JUL 96-SA
050246-0004-SA	AQUEOUS	ICP-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0004-SA	AQUEOUS	ICP-TRA-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0004-SA	AQUEOUS	HG-CVAA-AT	25 JUL 96-SA	25 JUL 96-SA
050246-0004-DU	AQUEOUS	ICP-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0004-DU	AQUEOUS	ICP-TRA-AT	18 JUL 96-N1	18 JUL 96-N1
050246-0004-DU	AQUEOUS	HG-CVAA-AT	25 JUL 96-SA	25 JUL 96-SA

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation

Category: ICP-AT
Matrix: AQUEOUS
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1
Concentration Units: mg/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Aluminum	2.00	2.09	104	80-116
Antimony	0.500	0.477	95	80-115
Arsenic	2.00	1.97	99	80-115
Barium	2.00	2.00	100	80-114
Beryllium	0.0500	0.0532	106	80-120
Boron	1.00	1.08	108	80-120
Cadmium	0.0500	0.0489	98	80-119
Calcium	50.0	51.3	103	80-114
Chromium	0.200	0.190	95	80-116
Cobalt	0.500	0.509	102	80-114
Copper	0.250	0.260	104	80-120
Iron	1.00	1.11	111	80-120
Lead	0.500	0.496	99	80-119
Lithium	1.00	0.896	90	80-120
Magnesium	50.0	51.1	102	81-120
Manganese	0.500	0.503	101	80-116
Molybdenum	1.00	0.980	98	80-120
Nickel	0.500	0.496	99	80-114
Potassium	50.0	50.0	100	80-120
Selenium	2.00	2.01	101	80-120
Silver	0.0500	0.0502	100	80-119
Sodium	50.0	52.6	105	80-120
Tin	2.00	2.00	100	80-120
Titanium	1.00	1.00	100	80-120
Vanadium	0.500	0.506	101	80-116
Zinc	0.500	0.487	97	80-120

Category: ICP-TRA-AT
Matrix: AQUEOUS
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1
Concentration Units: mg/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Antimony	0.500	0.495	99	80-120
Arsenic	2.00	1.94	97	80-120
Cadmium	0.0500	0.0524	105	80-120
Lead	0.500	0.518	104	80-120
Selenium	2.00	1.91	95	80-120
Thallium	2.00	2.03	101	80-120

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation (cont.)

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: HG-CVAA-AT				
Matrix: AQUEOUS				
QC Lot: 25 JUL 96-SA QC Run: 25 JUL 96-SA				
Concentration Units: mg/L				
Mercury	0.00100	0.0010	100	80-114

Calculations are performed before rounding to avoid round-off errors in calculated results.

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METHOD BLANK REPORT
Metals Analysis-and Preparation

Analyte	Result	Units	Reporting Limit
Test: ICP-AP9-AT			
Matrix: AQUEOUS			
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1			
Antimony	ND	mg/L	0.060
Barium	ND	mg/L	0.010
Beryllium	ND	mg/L	0.0020
Cadmium	ND	mg/L	0.0050
Chromium	ND	mg/L	0.010
Cobalt	ND	mg/L	0.010
Copper	ND	mg/L	0.020
Nickel	ND	mg/L	0.040
Silver	ND	mg/L	0.010
Tin	ND	mg/L	0.10
Vanadium	ND	mg/L	0.010
Zinc	ND	mg/L	0.020
Test: ICP-TRACE-AT			
Matrix: AQUEOUS			
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1			
Arsenic	ND	mg/L	0.010
Cadmium	ND	mg/L	0.0050
Lead	ND	mg/L	0.0030
Selenium	ND	mg/L	0.0050
Thallium	ND	mg/L	0.010
Test: HG-CVAA-7470-AT			
Matrix: AQUEOUS			
QC Lot: 25 JUL 96-SA QC Run: 25 JUL 96-SA			
Mercury	ND	mg/L	0.00020
Test: ICP-AP9-AT			
Matrix: AQUEOUS			
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1			
Antimony	ND	mg/L	0.060
Barium	ND	mg/L	0.010
Beryllium	ND	mg/L	0.0020
Cadmium	ND	mg/L	0.0050
Chromium	ND	mg/L	0.010

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-AP9-AT			
Matrix: AQUEOUS			
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1			
Cobalt	ND	mg/L	0.010
Copper	ND	mg/L	0.020
Nickel	ND	mg/L	0.040
Silver	ND	mg/L	0.010
Tin	ND	mg/L	0.10
Vanadium	ND	mg/L	0.010
Zinc	ND	mg/L	0.020
Test: ICP-TRACE-AT			
Matrix: AQUEOUS			
QC Lot: 18 JUL 96-N1 QC Run: 18 JUL 96-N1			
Arsenic	ND	mg/L	0.010
Cadmium	ND	mg/L	0.0050
Lead	ND	mg/L	0.0030
Selenium	ND	mg/L	0.0050
Thallium	ND	mg/L	0.010
Test: HG-CVAA-7470-AT			
Matrix: AQUEOUS			
QC Lot: 25 JUL 96-SA QC Run: 25 JUL 96-SA			
Mercury	ND	mg/L	0.00020

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Environmental Services

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Metals Analysis and Preparation

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX DUPLICATE	ICP-AP9-AT	050246-0004-DU	18 JUL 96-N1
MATRIX DUPLICATE	ICP-TRACE-AT	050246-0004-DU	18 JUL 96-N1
MATRIX DUPLICATE	HG-CVAA-7470-AT	050246-0004-DU	25 JUL 96-SA

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MATRIX DUPLICATE REPORT
Metals Analysis and Preparation

Analyte	Concentration Sample	Matrix Duplicate	% RPD
Test: ICP-AP9-AT			
Matrix AQUEOUS			
Sample: 050246-0004			
Units: mg/L			
Antimony	ND	ND	NC
Barium	0.14	0.14	1.5
Beryllium	ND	ND	NC
Cadmium	ND	ND	NC
Chromium	ND	ND	NC
Cobalt	ND	ND	NC
Copper	ND	ND	NC
Nickel	ND	ND	NC
Silver	ND	ND	NC
Tin	ND	ND	NC
Vanadium	ND	ND	NC
Zinc	ND	ND	NC
Test: ICP-TRACE-AT			
Matrix AQUEOUS			
Sample: 050246-0004			
Units: mg/L			
Arsenic	ND	ND	NC
Cadmium	ND	ND	NC
Lead	ND	ND	NC
Selenium	ND	ND	NC
Thallium	ND	ND	NC
Test: HG-CVAA-7470-AT			
Matrix AQUEOUS			
Sample: 050246-0004			
Units: mg/L			
Mercury	ND	ND	NC

ND = Not detected
NC = Not calculated, calculation not applicable

All calculations are performed before rounding to avoid round-off errors in calculated results.

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 050246

Category: ICP-AT ICP Metals / Total
Matrix: AQUEOUS
Sample: 050187-0006
MS Run: 18 JUL 96-N1
Units: mg/L

Analyte	Sample Result	Concentration MS Result	MSD Result	Amount Spiked MS	Amount Spiked MSD	% Recovery MS	% Recovery MSD	Recov. Accep. Limits	RPD MS-MSD	RPD Accept Limits
Aluminum	NA	NA	NA	2.0	2.0	NC	NC	80-120	0.0	20
Antimony	NA	NA	NA	0.50	0.50	NC	NC	80-120	0.0	20
Arsenic	NA	NA	NA	2.0	2.0	NC	NC	80-120	0.0	20
Barium	0.17	2.1	2.1	2.0	2.0	97	96	80-120	0.7	20
Beryllium	ND	0.052	0.052	0.050	0.050	103	105	80-120	1.1	20
Boron	NA	NA	NA	1.0	1.0	NC	NC	80-120	0.0	20
Cadmium	ND	0.049	0.046	0.050	0.050	99	91	80-120	8.2	20
Calcium	NA	NA	NA	50	50	NC	NC	80-120	0.0	20
Chromium	ND	0.18	0.18	0.20	0.20	90	90	80-120	0.4	20
Cobalt	ND	0.49	0.49	0.50	0.50	98	97	80-120	0.3	20
Copper	ND	0.25	0.25	0.25	0.25	100	99	80-120	0.8	20
Iron	5.2	7.0	7.1	1.0	1.0	NC	NC	80-120	0.9	20
Lead	NA	NA	NA	0.50	0.50	NC	NC	80-120	0.0	20
Lithium	NA	NA	NA	1.0	1.0	NC	NC	80-120	0.0	20
Magnesium	NA	NA	NA	50	50	NC	NC	80-120	0.0	20
Manganese	0.55	1.1	1.1	0.50	0.50	105	104	80-120	0.5	20
Molybdenum	NA	NA	NA	0.50	0.50	NC	NC	80-120	0.0	20
Nickel	ND	0.48	0.48	0.50	0.50	96	96	80-120	0.9	20
Potassium	NA	NA	NA	50	50	NC	NC	80-120	0.0	20
Selenium	NA	NA	NA	0.50	0.50	NC	NC	80-120	0.0	20
Silver	ND	0.050	0.047	0.050	0.050	99	94	80-120	6.1	20
Sodium	NA	NA	NA	50	50	NC	NC	80-120	0.0	20
Thallium	NA	NA	NA	2.0	2.0	NC	NC	80-120	0.0	20
Tin	ND	2.0	1.9	2.0	2.0	99	97	80-120	2.5	20
Titanium	NA	NA	NA	1.0	1.0	NC	NC	80-120	0.0	20
Vanadium	ND	0.50	0.48	0.50	0.50	100	97	80-120	2.7	20
Zinc	ND	0.57	0.57	0.50	0.50	115	114	80-120	0.6	20

NA = Not Applicable
NC = Not Calculated, calculation not applicable.
ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 050246 (cont.)

Category: ICP-TRA-AT ICP Metals / Total by Trace ICP
Matrix: AQUEOUS
Sample: 050187-0006
MS Run: 18 JUL 96-N1
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS	Amount Spiked MSD	% Recovery MS	% Recovery MSD	Recov. Accep. Limits	RPD MS-MSD	RPD Accept Limits
Antimony	NA	NA	NA	0.50	0.50	NC	NC	80-120	0.0	20
Arsenic	ND	1.9	2.0	2.0	2.0	97	101	80-120	4.4	20
Cadmium	ND	0.051	0.053	0.050	0.050	101	107	80-120	5.3	20
Lead	ND	0.51	0.53	0.50	0.50	102	107	80-120	4.8	20
Selenium	ND	1.9	2.0	2.0	2.0	94	98	80-120	3.5	20
Thallium	ND	2.0	2.1	2.0	2.0	101	106	80-120	4.3	20

Category: HG-CVAA-AT Mercury by CVAA / Total Mercury
Matrix: AQUEOUS
Sample: 050246-0004
MS Run: 25 JUL 96-SA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS	Amount Spiked MSD	% Recovery MS	% Recovery MSD	Recov. Accep. Limits	RPD MS-MSD	RPD Accept Limits
Mercury	ND	0.00098	0.0010	0.0010	0.0010	98	101	80-114	3.2	10

NA = Not Applicable
NC = Not Calculated, calculation not applicable.
ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.