FOSTER WHEELER ENVIRONMENTAL CORPORATION

February 26, 1999
File #: 1284-0018-99-0069

Commanding Officer
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop #82
Lester, PA 19113
Attn.: Code 4023 (S. Lehman)

Subject: US NAVY CONTRACT NO. N62472-94-D-0398
DELIVERY ORDER NO. 0018-06, NAWC WARMINSTER, PA
January, 1999 GROUNDWATER PUMP & TREAT SYSTEM
MONTHLY REPORT

Dear Mr. Lehman:

This letter report provides the results of the January 1999 sampling and the activities performed during the reporting period from January 1, 1999 through January 31, 1999. The groundwater treatment plant operated 91 % of the reporting period.

As of January 31, 1999 (2400 hours) a total of 721,825 gallons of groundwater had been treated during the period from January 1, 1999 through January 31, 1999. This brings the total amount of water treated to 33,526,396 gallons (January 31, 1999). During January 1999 the average effluent flowrate was 17.7 gpm.

The process water was sampled on January 19, 1999. The results of this sampling are presented in the attached table. This data shows that no discharge limits were exceeded during the January 1999 reporting period. Tetrachloroethene and 1,1,1,2-Tetrachloroethane were detected in the Area C influent. As in December 1998, Trichloroethene was detected in the equalization tank effluent sample. Again, since Trichloroethene was never detected in the Area C influent, the Trichloroethene is most likely due to the discharge of purge and decontamination water from the Area "D" and Area "A" drilling programs for treatment at the groundwater pump and treat plant.

During the reporting period there were two system shutdowns:

1/20/99- CMCS file size misreported, C:\DOS\^RMS1B67.TMP. This file-reporting problem has been found to occur after an electrical outage. Other factors may also be the cause. No remedy has been determined to date.

1/23/99- Air stripper sump transfer pump P22 failed. This caused the rest of the system to shutdown after certain high level alarms were reached (cascade system).

Maintenance items performed during the month of January are as follows:

1/07/99- Delivered pump P-40 to Kufen Electric for a repair quote.

2300 LINCOLN HIGHWAY EAST, ONE OXFORD VALLEY, SUITE 200, LANGHORNE, PA 19047-1829
TEL: 215-702-4000 FAX: 215-702-4045

1/25/99- PermAlert motherboard re-installed by Mr. Jeff Wichert of PermAlert. Leak detection system works in both Area "C" and Area "A". Area "C" will only read to approximately 1500 feet due to the amount of water present in the pipe.

The Tetrachloroethene, 1,1,1,2-Tetrachloroethane, and Trichloroethene concentrations in the groundwater influent to the system were 10 ug/l, 9.6 ug/l and 980 ug/l respectively, with a total of 0.060 pounds of Tetrachloroethene, 0.058 pounds of 1,1,1,2-Tetrachloroethane, and 5.897 pounds of Trichloroethene removed during the January, 1999 reporting period. The total amount of Tetrachloroethene, 1,1,1,2-Tetrachloroethane, and Trichloroethene removed through January, 1999 is 3.252, 0.058, and 5.91 pounds respectively.

Calculation:
Average PCE concentration = 10 ug/l
Average water flowrate for month of January, 1999 = 17.7 gpm
Pounds of PCE removed = (17.7 gpm)(40781 min)(10 ug/l)(3.785 l/gal) (1 g / 1,000,000 ug)(1 lb. / 454 g) = 0.06 lbs. PCE

Calculation:
Average 1,1,1,2-Tetrachloroethane concentration = 9.6 ug/l
Average water flowrate for month of January, 1999 = 17.7 gpm
Pounds of PCE removed = (17.7 gpm)(40781 min)(9.6 ug/l)(3.785 l/gal) (1 g / 1,000,000 ug)(1 lb. / 454 g) = 0.058 lbs.

Calculation:
Average TCE concentration = 980 ug/l
Average water flowrate for month of January, 1999 = 17.7 gpm
Pounds of TCE removed = (17.7 gpm)(40781 min)(980 ug/l)(3.785 l/gal) (1 g / 1,000,000 ug)(1 lb. / 454 g) = 5.897 lbs. TCE

The scheduled dates which Foster Wheeler Environmental's operator will be on-site during the months of February and March, 1999 are presented in the attached schedule.

If you should have any questions or comments regarding the January 1999 reporting period, please feel free to contact either me at 215-702-4076 or Dave DiCesare at 215-702-4074.

Sincerely,

Daniel R. Kopcow, P.E.
Project Manager

David J. DiCesare
Project Engineer

cc: L. Monaco (NORTHDIV)
T. Ames (CSO)
N. Crickman (PADEP)
M. Hunter (CSO)
E. Beatty (ROICC)
A. Flipse (PADEP)
D. Ostrauskas (USEPA)
A. Wills (Bucks Co. Dept. of Health)
D. Fennimore (Earth Data Inc.)
A. Holcomb (FWENC)
File

Foster Whe ler Environmental C rporation
NAWC, Warminster - Groundwater Pump and Treat Plant
January, 1999 - Sampling Results

FWENC - Sample ID		DO-0018-06-001	DO-0018-06-02	DO-0018-06-003	DO-0018-06-004	DO-0018-06-05	DO-0018-06-06	DO-0018-06-007	
Sample Location		Area C Influent	Equalization Tank Effluent	Inclined Plate Separator Effluent	Sand Filter Effluent	Air Stripper Effluent	Lead Carbon Unit Effluent	Treatment Plant Effluent	Discharge Limits
Sample Date	Method	19-Jan-99	19-Jan-99	19-Jan-99	19-Jan-99	19-Jan-99	19-Jan-99	19-Jan-99	Instantaneous Maximum
Total Discharge (gal.) thru 1/31/99									721,825
Average Discharge Flowrate (gpm) for January, 1999									17.7
pH	EPA 150.1	6.5	6.95	N/A	7.15	N/A	N/A	7.15	6.0-9.0
Total Suspended Solids (mg/l)	EPA 160.2	4	3	3	6	N/A	N/A	3	75 mg/l
Total Organic Carbon (mg/l)	415.1/EPA600	N/A	<10	N/A	N/A	N/A	<10	<10	-
Carbon Tetrachloride	EPA 8260A	BDL	BDL	N/A	N/A	BDL	BDL	BDL	4.2 ug/l
Tetrachloroethene	EPA 8260A	10	BDL	N/A	N/A	BDL	BDL	BDL	10.0 ug/l
Trichloroethene	EPA 8260A	BDL	980	N/A	N/A	10	BDL	BDL	42.5 ug/l
Vinyl Chloride	EPA 8260A	BDL	BDL	N/A	N/A	BDL	BDL	BDL	0.27 ug/l
1,1-Dichloroethene	EPA 8260A	BDL	BDL	N/A	N/A	BDL	BDL	BDL	0.85 ug/l
1,1,1,2-Tetrachloroethane	EPA 8260A	9.6	BDL	BDL	BDL	BDL	BDL	BDL	
Cadmium	SW846	N/A	BDL	N/A	BDL	N/A	N/A	BDL	4.0 ug/l
Copper	SW846	N/A	BDL	N/A	BDL	N/A	N/A	BDL	24.0 ug/l
Lead	SW846	N/A	BDL	N/A	BDL	N/A	N/A	3.1	11.0 ug/l
Zinc	SW846	N/A	27.1	N/A	25.6	N/A	N/A	25.6	157 ug/l
Arsenic	SW846	N/A	BDL	N/A	BDL	N/A	N/A	BDL	0.27 ug/l
Aluminum	SW846	N/A	BDL	N/A	BDL	N/A	N/A	BDL	1875 ug/l
Total Iron	SW846	N/A	149	N/A	BDL	N/A	N/A	33.7	3600 ug/l
Total Manganese	SW846	N/A	34.2	N/A	BDL	N/A	N/A	BDL	3750 ug/l
Mercury	SW846	N/A	BDL	N/A	BDL	N/A	N/A	BDL	0.045 ug/l
Total Cyanide (mg/l)	SW846 335.3	N/A	BDL	N/A	BDL	N/A	N/A	BDL	-
Chromium (+6) - (mg/l)	SW846 7196	N/A	<.025	N/A	<.025	N/A	N/A	<.025	23.2 ug/l

NOTES:

1 - All concentrations are in ug/l unless otherwise noted.
N/A - Indicates compound was not analyzed for.
BDL - Below Detection Limits

Foster Wheeler Environmental Corporation
NAWC, Warminster Groundwater Pump and Treatment Plant
Operator Schedule for February & March, 1999

Monday, February 1, 1999
Wednesday, February 3, 1999
Monday, February 8, 1999
Wednesday, February 10, 1999
Monday, February 15, 1999
Wednesday, February 17, 1999
Monday, February 22, 1999
Wednesday, February 24, 199

Monday, March 1, 1999
Wednesday, March 3, 1999
Monday, March 8, 1999
Wednesday, March 10, 1999
Monday, March 15, 1999
Wednesday, March 17, 1999
Monday, March 22, 1999
Wednesday, March 24, 1999
Monday, March 29, 1999
Wednesday, March 31, 1999

CHEMTECH 110 Route 4 • Englewood, New Jersey 07631 Phone: (201) 567-6868 Fax: (201) 567-1333

DATA PACKAGE FOR VOLATILE ORGANICS, METALS & GENERAL CHEMISTRY

NAWC WARMINSTER 1284.B018.0209.00000

FOSTER WHEELER
ONE OXFORD VALLEY SUITE 200
LANGHORNE PA 19047
215-702-4020

CHEMTECH PROJECT **10451NJ**
ATTENTION **CHUCK ROGERS**

Since 1967

CHEMTECH

TABLE OF CONTENTS
PROJECT# 10451NJ

Cover Page	000001
Chain of Custody	000003
Methodology Review	000005
Laboratory Chronicle	000007
Conformance/ Non-Conformance Summary	000009
Results Summary	**000015**
Volatile Data	000055
VOA Analytical Results Summary	000056
Tuning Results Summary	000081
Method Blank Results Summary	000084
Calibration Summary	000090
Surrogate Recovery Summary	000097
MS/ MSD Summary	000099
Internal Standard Summary	000101
Chromatograms	000103
Metals Data	000129
Results	000130
Blanks	000139
Calibrations	000145
Interference Check Sample	000155
Spike Results	000158
Duplicate Results	000162
Laboratory Control Sample	000166
Serial Dilution	000168
General Chemistry Data	000170
Test results	000171
QC Results	000179

CHEMTECH CONSULTING GROUP

COVER PAGE

CHEMTECH

COVER PAGE

Lab Name: Chemtech Consulting Group Client: FOSTER WHEELER ENVIRONMENTAL
Lab Code: CHEM Project No.: 10451NJ Project Name: NAWC WARMINSTER

Client Sample No.	Lab Sample ID
DO-0018-06-001	64899
DO-0018-06-002	64900
DO-0018-06-007	64901
DO-0018-06-FIELDBLANK	64902
DO-0018-06-003	64903
DO-0018-06-004	64904
DO-0018-06-005	64905
DO-0018-06-006	64906

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: _____ Name: DIVYAJIT MEHTA

Date : 2/2/99 Title: LAB DIRECTOR

CHEMTECH CONSULTING GROUP

CHAIN OF CUSTODY RECORD

Please check one:

K.O. # 14751

CHEMTECH

CHAIN OF CUSTODY RECORD

North Jersey ☒
110 Route 4
Englewood, NJ 07631
(201) 567-6868 Fax (201) 567-1333

South Jersey ☐
515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199 Fax (609) 998-0910

CHEMTECH JOB NO.: 10451 NJ

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler

ADDRESS: 2300 Lincoln Highway EAST

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Dave DiCesare

PHONE: 215-702-4074 FAX: 215-702-4045

PROJECT INFORMATION

PROJECT NAME: NAWC WARMINSTER

PROJECT NO.: 1284.B018.0209.00000

PROJECT MANAGER: John Magee

LOCATION: Langhorne, PA

PHONE: 215-702-4020 FAX: 215-702-4045

BILLING INFORMATION

BILL TO: Foster Wheeler Environmental Corp. PO #:

ADDRESS: 2300 Lincoln Highway EAST

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Rita Lee PHONE: 215-702-4088

DATA TURNAROUND INFORMATION

☐ 21 DAYS
☒ 14 DAYS A-C
☐ 7 DAYS
☐ OTHER

APPROVED BY: (CHEMTECH'S PERSONNEL)

21 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED.

DATA DELIVERABLE INFORMATION

☐ NJ REDUCED ☐ CHEMTECH FORMAT
☐ NJ CLP ☐ RESULTS ONLY
☐ USEPA CLP ☐ DISKETTES
☐ NYS CLP ☐ NYS ASP
☐ OTHER

ANALYSIS

1 pH
2 TSS
3 TOC
4 Cn
5 Cr+6
6 Metals - Total Fe Hg, Cr Cu, Pb, Zn, As, Al, Tl, Mn
7 TCL - VOA
8 Dissolved Fe
9 Filter + Preserve on arrival

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
								/	/	C	D	/	B	A	/		A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other ← Specify Preservatives
1. 64899	DO - 0018 - 06 - 001	H_2O			1/19/99	1437	4	1	1					2			-
2. 64900	DO - 0018 - 06 - 002					1430	9	1	1	1	1	1	1	2	1		-
3. 64903	DO - 0018 - 06 - 003					1426	1		1								
4. 64904	DO - 0018 - 06 - 004					1421	6	1	1		1	1	1		1		
5. 64905	DO - 0018 - 06 - 005					1417	2							2			
6. 64906	DO - 0018 - 06 - 006					1411	3			1				2			
7. 64901	DO - 0018 - 06 - 007					1405	9	1	1	1	1	1	1	2	1		-
8. 64902	DO - 0018 - 06 - Field Blank					1350	9	1	1	1	1	1	1	2	1		-

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	1/19/99 1445	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 1/20/99 10:00	RECEIVED FOR LAB BY: 3. [signature]

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler

Comments: 7 days fax

10-98 WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

NO 022900

CHEMTECH CONSULTING GROUP

METHODOLOGY REVIEW

CHEMTECH

METHODOLOGY SUMMARY
PROJECT # 10451NJ

VOLATILE ORGANICS
The analysis of Volatile Organics is based on Method 8260B.

METALS
The analysis of metals is based on Test Methods for Evaluating Solid Waste, SW 846, 3rd Edition, 1986, Method 6010, except for Mercury which is based on SW 846 Method # 7471.

IGNITABILITY
The analysis of Ignitability is based on Method # 1010.

CORROSIVITY
The analysis of Corrosivity is based on Method # 9045

REACTIVITY
Cyanide Reactivity is based on Method # 9010. Sulfide Reactivity is based on Method # 9030.

pH
The analysis of pH is based on Method # 4500-H.

TSS
The analysis of TSS is based on the Method # 160.2

TDS
The analysis of TDS is based on the Method # 160.1

HARDNESS
The analysis of Hardness is based on Method 130.2

TOC
The analysis of TOC is based on the Method # 415.2

CHLORIDE
The analysis of Chloride is based on Method 325.1

CYANIDE
The analysis of Cyanide is based on method 335.2

HEXAVALENT CHROMIUM
The analysis of Hexavalent Chromium is based on method 7196A

CHEMTECH CONSULTING GROUP

LABORATORY CHRONICLE

CHEMTECH

LABORATORY CHRONICLE
PROJECT 10451NJ

ANALYSIS	COLLECTED DATE	DIGESTION/ EXTRACTION	ANALYZED DATE	ANALYST
VOLATILE ORGANICS	01/19/99	NA	01/24/99	PM
METALS	01/19/99	01/26/99	01/27/99	SJ
MERCURY	01/19/99	01/22/99	01/22/99	NP/VP
CYANIDE	01/19/99	01/22/99	01/22/99	BP
pH	01/19/99	NA	01/20/99	HSP
TSS	01/19/99	NA	01/21/99	HSP
HEXAVALENT CHROMIUM	01/19/99	NA	01/20/99	BP
TOC	01/19/99	NA	01/27/99	SPS
PETROLEUM HYDROCARBONS	01/19/99	NA	NA	SPS

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CONFORMANCE/ NON-CONFORMANCE SUMMARY

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DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).

(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

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DATA REPORTING QUALIFIERS - - INORGANIC

For reporting results, the following "Results Qualifiers" are used:

B - If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).

U - If the analyte was analyzed for, but not detected.

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85 - 115%), while sample absorbance is less than 50% of spike absorbance.

*** -** Duplicate analysis not within control limits.

+ - Correlation coefficient for the MSA is less than 0.995.

***** -** Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M (Method) qualifier

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"PM" for ICP when Microwave Digestion is used
"AM" for flame AA when Microwave Digestion is used
"FM" for furnace AA when Microwave Digestion is used
"CV" for Manual Cold Vapor AA
"AV" for automated Cold Vapor AA
"CA" for Midi-Distillation Spectrophotometric
"AS" for Semi-Automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed

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CONSULTING GROUP, INC.

GC/MS CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No. 1045/N.J

	NO	YES
1. Chromatograms Labeled/Compounds Identified		✓
2. Tune Specifications		
a. BFB Meets Criteria		✓
b. DFTPP Meets Criteria		
3. Tuning Frequency Performed every 24 hrs for 600 series & 12 hrs for 8000 series		✓
4. Calibration Frequency Initial calibration performed within 30 days before sample analysis & cont. calibration percformed within 24 hrs of sample analysis for 600 series & 12 hours for 8000 series		✓
5. Calibration Requirements		
a. Calibration Check Compounds (CCCs)		✓
b. System Performance Check Compounds (SPCCs)		
6. Blank Contamination If yes,list compounds & concentrations in each blank:	✓	
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
7. Surrogate Recoveries Meet Criteria If not met, list compounds & their recoveries which fall outside acceptable range:		✓
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list compounds & their recoveries which fall outside acceptable range:		✓
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
9. Internal Standard Areas & Retention Time Shifts Meet Criteria Internal standard areas between -50% & +100% of daily standard		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		NA
11. Analysis Holding time Met If not met, list number of days exceeded for each sample:		✓

Laboratory Supervisor: CMP Date: 2/2/99

New Jersey Lab ID#: 02548 New York Lab ID#: 10624

CHEMTECH CONSULTING GROUP, INC.

METALS ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No. 10451 NJ

	NO	YES
1. Calibration Summaries Meet Criteria		✓
2. ICP Interference Check Sample (ICS) Results Summary Submitted Meets Criteria (if applicable)		✓
3. Serial Dilution Summary Submitted Meets Criteria (if applicable)		✓
4. Laboratory Control Sample (LCS) Summary Submitted Meets Criteria (if applicable)		✓
5. Blank Contamination If yes, list compounds & concentrations in each blank:	✓	
6. Matrix Spike Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
7. Sample Duplicate Analysis Meet QC Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
8. Digestion and Analysis Holding Time Met If not met, list compounds and number of days exceeded for each sample:		✓

000013

Laboratory Supervisor: CMP Date: 2/2/99

New Jersey Lab ID#: 02548 New York Lab ID#: 10624

CHEMTECH
CONSULTING GROUP, INC.

GENERAL CHEMISTRY CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No. 1045INJ

	NO	YES
1. Blank Contamination	✓	
If yes, list compounds and concentrations in each blank:		
2. Matrix Spike Recoveries Meet Criteria		✓
If not met, list those compounds & their recoveries which fall outside the acceptable range:		
3. Sample Duplicate Analysis Meet QC Criteria		✓
If not met, list those compounds & their recoveries which fall outside the acceptable range:		
4. Analysis Holding Time Met		✓
If not met, list analyses and number of days exceeded for each sample:		

000014

Laboratory Supervisor: CMP Date: 2/2/99

New Jersey Lab ID#: 02548 New York Lab ID#: 10624

RESULTS SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	9.6	
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64899
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-001
TIME SAMPLED- 1437 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
pH	EPA 150.1	01/20/99		HSP	6.50	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	4.00	mg/L

LABORATORY DIRECTOR _____

000020

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	92	U
74-87-3	Chloromethane	92	U
75-01-4	Vinyl Chloride	65	U
74-83-9	Bromomethane	83	U
75-00-3	Chloroethane	100	U
107-02-8	Acrolein	250	U
75-69-4	Trichlorofluoromethane	63	U
75-35-4	1,1-Dichloroethene	29	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	37	U
156-60-5	trans-1,2-Dichloroethene	34	U
107-13-1	Acrylonitrile	250	U
75-34-4	1,1-Dichloroethane	19	U
590-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-dichloroethene	42	U
74-97-5	Bromochloromethane	44	U
67-66-3	Chloroform	42	U
71-55-6	1,1,1-Trichloroethane	43	U
108-05-4	Vinyl Acetate	250	U
78-93-3	2-Butanone	250	U
56-23-5	Carbon Tetrachloride	76	U
563-58-6	1,1-Dichloropropene	37	U
71-43-2	Benzene	43	U
107-06-2	1,2-Dichloroethane	45	U
79-01-6	Trichloroethene	980	
78-87-5	1,2-Dichloropropane	50	U
74-95-3	Dibromomethane	44	U
75-27-4	Bromodichloromethane	30	U
110-07-3	2-Chloroethyl Vinyl Ether	250	U
10061-01-5	cis-1,3-Dichloropropene	6.5	U
108-88-3	Toluene	50	U
10061-02-6	trans-1,3-Dichloropropene	12	U

000021

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	45	U
108-10-1	4-Methyl-2-Pentanone	250	U
127-18-4	Tetrachloroethene	45	U
142-28-9	1,3-Dichloropropane	45	U
124-48-1	Dibromochloromethane	50	U
106-93-4	1,2-Dibromoethane	60	U
591-78-6	2-Hexanone	250	U
108-90-7	Chlorobenzene	45	U
630-20-6	1,1,1,2-Tetrachloroethane	45	U
100-41-4	Ethylbenzene	45	U
136777-61-2	m&p-xylenes	65	U
95-47-6	o-xylene	45	U
100-42-5	Styrene	23	U
75-25-2	Bromoform	25	U
98-82-8	isopropylbenzene	50	U
108-86-1	Bromobenzene	35	U
79-34-5	1,1,2,2-Tetrachloroethane	55	U
96-18-4	1,2,3-Trichloropropane	55	U
103-65-1	n-Propylbenzene	45	U
95-49-8	2-Chlorotoluene	50	U
106-43-4	4-Chlorotoluene	45	U
108-67-8	1,3,5-Trimethylbenzene	55	U
98-06-6	tert-Butylbenzene	35	U
95-63-6	1,2,4-Trimethylbenzene	55	U
135-98-8	sec-Butylbenzene	30	U
541-73-1	1,3-Dichlorobenzene	48	U
99-87-6	4-Isopropyltoluene	25	U
106-46-7	1,4-Dichlorobenzene	50	U
95-50-1	1,2-Dichlorobenzene	40	U
104-51-8	n-Butylbenzene	60	U
96-12-8	1,2-Dibromo-3-chloropropane	70	U
120-82-1	1,2,4-Trichlorobenzene	40	U
87-68-3	Hexachlorobutadiene	50	U

000022

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH
Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ
Site:
Location:
Group: D0-0018-0

Matrix: (soil/water) WATER
Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML
Lab File ID: M9429.D

Level: (low/med)
Date Received: 1/20/99

% Moisture: not dec. 100
Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm)
Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	40	U
87-61-6	1,2,3-Trichlorobenzene	35	U

000023

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-002

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045

Site:

Location:

Group: D0-0018-0

Matrix: (soil/water) WATER

Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M9429.D

Level: (low/med)

Date Received: 1/20/99

% Moisture: not dec. 100

Date Analyzed: 1/24/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 50.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-002

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64900S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.0	B		P
7440-38-2	Arsenic	5.0	B		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	149			P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	34.2			P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	27.1			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

000025

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64900DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	58.0	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64900
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-002
TIME SAMPLED- 1430 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	6.95	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000027

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

000028

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

000029

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH
Contract: FOSTER WHEELER ENVIRONMENTAL
Project No.: 10451NJ
Site:
Location:
Group: D0-0018-0
Matrix: (soil/water) WATER
Lab Sample ID: O64901
Sample wt/vol: 5.0 (g/mL) ML
Lab File ID: M9433.D
Level: (low/med)
Date Received: 1/20/99
% Moisture: not dec. 100
Date Analyzed: 1/24/99
GC Column: RTX624
ID: 0.53 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-007

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64901S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.0	B		P
7440-38-2	Arsenic	6.2	B	-	P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	33.7	B		P
7439-92-1	Lead	3.1			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	25.6			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

000032

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64901DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

000033

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64901
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-007
TIME SAMPLED- 1405 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.15	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000034

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	3.7	
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

Number TICs found: 0

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64902S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.1	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	15.0	U		P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	5.3	B		P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-F

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64902DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64902
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-FIELDBLANK
TIME SAMPLED- 1350 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.90	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000041

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64903
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-003
TIME SAMPLED- 1426 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000042

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-004

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64904S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.3	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	61.9	B		P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	7.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	25.6			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64904DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS - Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64904
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-004
TIME SAMPLED- 1421 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.15	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	6.00	mg/L

LABORATORY DIRECTOR _____

000045

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH
Contract: FOSTER WHEELER ENVIRONMENTAL
Project No.: 10451NJ
Site:
Location:
Group: D0-0018-0
Matrix: (soil/water) WATER
Lab Sample ID: O64905
Sample wt/vol: 5.0 (g/mL) ML
Lab File ID: M9434.D
Level: (low/med)
Date Received: 1/20/99
% Moisture: not dec. 100
Date Analyzed: 1/24/99
GC Column: RTX624
ID: 0.53 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451NJ

SAMPLE NUMBER- 64906
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-006
TIME SAMPLED- 1411 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

PAGE 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L

LABORATORY DIRECTOR _____

000054

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 693-2111 Fax: (609) 698-0910

NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

I.

VOLATILE ORGANICS DATA

A.

ANALYTICAL RESULTS SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	10	
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	9.6	
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64899

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9432.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	92	U
74-87-3	Chloromethane	92	U
75-01-4	Vinyl Chloride	65	U
74-83-9	Bromomethane	83	U
75-00-3	Chloroethane	100	U
107-02-8	Acrolein	250	U
75-69-4	Trichlorofluoromethane	63	U
75-35-4	1,1-Dichloroethene	29	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	37	U
156-60-5	trans-1,2-Dichloroethene	34	U
107-13-1	Acrylonitrile	250	U
75-34-4	1,1-Dichloroethane	19	U
590-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-dichloroethene	42	U
74-97-5	Bromochloromethane	44	U
67-66-3	Chloroform	42	U
71-55-6	1,1,1-Trichloroethane	43	U
108-05-4	Vinyl Acetate	250	U
78-93-3	2-Butanone	250	U
56-23-5	Carbon Tetrachloride	76	U
563-58-6	1,1-Dichloropropene	37	U
71-43-2	Benzene	43	U
107-06-2	1,2-Dichloroethane	45	U
79-01-6	Trichloroethene	980	
78-87-5	1,2-Dichloropropane	50	U
74-95-3	Dibromomethane	44	U
75-27-4	Bromodichloromethane	30	U
110-07-3	2-Chloroethyl Vinyl Ether	250	U
10061-01-5	cis-1,3-Dichloropropene	6.5	U
108-88-3	Toluene	50	U
10061-02-6	trans-1,3-Dichloropropene	12	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	45	U
108-10-1	4-Methyl-2-Pentanone	250	U
127-18-4	Tetrachloroethene	45	U
142-28-9	1,3-Dichloropropane	45	U
124-48-1	Dibromochloromethane	50	U
106-93-4	1,2-Dibromoethane	60	U
591-78-6	2-Hexanone	250	U
108-90-7	Chlorobenzene	45	U
630-20-6	1,1,1,2-Tetrachloroethane	45	U
100-41-4	Ethylbenzene	45	U
136777-61-2	m&p-xylenes	65	U
95-47-6	o-xylene	45	U
100-42-5	Styrene	23	U
75-25-2	Bromoform	25	U
98-82-8	isopropylbenzene	50	U
108-86-1	Bromobenzene	35	U
79-34-5	1,1,2,2-Tetrachloroethane	55	U
96-18-4	1,2,3-Trichloropropane	55	U
103-65-1	n-Propylbenzene	45	U
95-49-8	2-Chlorotoluene	50	U
106-43-4	4-Chlorotoluene	45	U
108-67-8	1,3,5-Trimethylbenzene	55	U
98-06-6	tert-Butylbenzene	35	U
95-63-6	1,2,4-Trimethylbenzene	55	U
135-98-8	sec-Butylbenzene	30	U
541-73-1	1,3-Dichlorobenzene	48	U
99-87-6	4-Isopropyltoluene	25	U
106-46-7	1,4-Dichlorobenzene	50	U
95-50-1	1,2-Dichlorobenzene	40	U
104-51-8	n-Butylbenzene	60	U
96-12-8	1,2-Dibromo-3-chloropropane	70	U
120-82-1	1,2,4-Trichlorobenzene	40	U
87-68-3	Hexachlorobutadiene	50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	40	U
87-61-6	1,2,3-Trichlorobenzene	35	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64900

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9429.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9433.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	3.7	
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-FIELDBLANK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-06-00

Matrix: (soil/water) WATER Lab Sample ID: O64902

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9423.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64905

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9434.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O64906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9435.D

Level: (low/med) _____ Date Received: 1/20/99

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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B.

TUNING RESULTS SUMMARY

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-06-

Lab File ID: M8988.D BFB Injection Date: 12/28/98

Instrument ID: VOA 3 BFB Injection Time: 2134

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.7
75	30.0 - 60.0% of mass 95	47.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	54.3
175	5.0 - 9.0% of mass 174	4.1 (7.6)1
176	Greater than 95% but less than 101% of mass 174	54.4 (100.3)1
177	5.0 - 9.0% of mass 176	3.5 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	M8991.D	12/28/98	2334
02	VSTD020	VSTD020	M8992.D	12/29/98	0018
03	VSTD100	VSTD100	M8993.D	12/29/98	0102
04	VSTD200	VSTD200	M8994.D	12/29/98	0146
05	VSTD005	VSTD005	M8996.D	12/29/98	0334
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06-

Lab File ID: M9419.D BFB Injection Date: 1/24/99

Instrument ID: VOA 3 BFB Injection Time: 1100

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.1
75	30.0 - 60.0% of mass 95	54.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	51.1
175	5.0 - 9.0% of mass 174	4.5 (8.8)1
176	Greater than 95% but less than 101% of mass 174	51.5 (100.8)1
177	5.0 - 9.0% of mass 176	3.2 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5002	M9421.D	1/24/99	1210
02	VBLK01	VBLK01	M9422.D	1/24/99	1330
03	D0-0018-06-FIE	O64902	M9423.D	1/24/99	1414
04	D0-0018-06-002	O64900	M9429.D	1/24/99	1838
05	D0-0018-06-001	O64899	M9432.D	1/24/99	2051
06	D0-0018-06-007	O64901	M9433.D	1/24/99	2136
07	D0-0018-06-005	O64905	M9434.D	1/24/99	2221
08	D0-0018-06-006	O64906	M9435.D	1/24/99	2305
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C.

METHOD BLANK RESULTS SUMMARY

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH Contract: FOSTER

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06

Lab File ID: M9422.D Lab Sample ID: VBLK01

Date Analyzed: 1/24/99 Time Analyzed: 1330

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA 3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	D0-0018-06-FIELDBLA	O64902	M9423.D	1414
02	D0-0018-06-002	O64900	M9429.D	1838
03	D0-0018-06-001	O64899	M9432.D	2051
04	D0-0018-06-007	O64901	M9433.D	2136
05	D0-0018-06-005	O64905	M9434.D	2221
06	D0-0018-06-006	O64906	M9435.D	2305
07				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9422.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	1.8	U
74-87-3	Chloromethane	1.8	U
75-01-4	Vinyl Chloride	1.3	U
74-83-9	Bromomethane	1.7	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	0.6	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	U
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
590-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-dichloroethene	0.8	U
74-97-5	Bromochloromethane	0.9	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
108-05-4	Vinyl Acetate	5	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1.5	U
563-58-6	1,1-Dichloropropene	0.7	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	0.9	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9422.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
136777-61-2	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9422.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1045 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M9422.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. 100 Date Analyzed: 1/24/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06

Instrument ID: VOA 3 Calibration Date(s): 12/28/98 12/29/98

Heated Purge: (Y/N) N Calibration Times: 2334 0334

GC Column RTX624 ID: 0.53 (mm)

Lab File ID: RRF005 = M8996.D RRF20 = M8992.D
RRF50 = M8991.D RRF100 = M8993.D RRF200 = M8994.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane	0.192	0.176	0.186	0.184	0.200	0.188	4.8	
Chloromethane *	0.323	0.310	0.333	0.358	0.423	0.349	12.8	*
Vinyl Chloride	0.219	0.201	0.203	0.198	0.202	0.205	4.0	
Bromomethane	0.230	0.176	0.188	0.153	0.056	0.161	40.4	
Chloroethane	0.212	0.216	0.210	0.212	0.142	0.198	15.8	
Acrolein	0.053	0.043	0.046	0.043	0.042	0.045	10.4	
Trichlorofluoromethane	0.297	0.310	0.313	0.303	0.290	0.303	3.0	
1,1-Dichloroethene	0.494	0.411	0.476	0.452	0.416	0.450	8.1	
Acetone	0.254	0.150	0.114	0.119	0.124	0.152	38.5	
Carbon Disulfide	1.501	1.255	1.553	1.431	1.338	1.416	8.5	
Methylene Chloride	0.342	0.287	0.340	0.316	0.318	0.321	7.0	
trans-1,2-Dichloroethene	0.514	0.387	0.480	0.445	0.467	0.459	10.2	
Acrylonitrile	0.120	0.103	0.109	0.101	0.114	0.109	7.3	
1,1-Dichloroethane *	0.691	0.560	0.699	0.594	0.658	0.640	9.5	*
2,2-Dichloropropane	0.494	0.377	0.465	0.430	0.445	0.442	9.8	
cis-1,2-dichloroethene	0.535	0.441	0.539	0.474	0.498	0.497	8.3	
Bromochloromethane	0.359	0.303	0.358	0.322	0.339	0.336	7.1	
Chloroform	0.621	0.496	0.599	0.536	0.597	0.570	9.2	
1,1,1-Trichloroethane	0.450	0.371	0.454	0.415	0.435	0.425	8.0	
Vinyl Acetate	0.383	0.333	0.381	0.324	0.345	0.353	7.7	
2-Butanone	0.310	0.236	0.217	0.208	0.253	0.245	16.4	
Carbon Tetrachloride	0.180	0.157	0.171	0.218	0.250	0.195	19.7	
1,1-Dichloropropene	0.463	0.377	0.452	0.419	0.433	0.429	7.8	
Benzene	1.255	1.044	1.222	1.126	1.165	1.162	7.1	
1,2-Dichloroethane	0.456	0.359	0.425	0.368	0.393	0.400	10.1	
Trichloroethene	0.316	0.270	0.317	0.310	0.344	0.311	8.5	
1,2-Dichloropropane	0.399	0.320	0.384	0.350	0.383	0.367	8.7	
Dibromomethane	0.172	0.148	0.171	0.164	0.187	0.168	8.4	
Bromodichloromethane	0.459	0.364	0.432	0.408	0.439	0.420	8.6	
2-Chloroethyl Vinyl Ether	0.192	0.154	0.183	0.194	0.270	0.199	21.7	
cis-1,3-Dichloropropene	0.586	0.470	0.558	0.519	0.575	0.542	8.8	
Toluene	1.254	0.979	1.131	1.014	1.094	1.094	9.9	
trans-1,3-Dichloropropene	0.550	0.421	0.482	0.440	0.495	0.477	10.6	
1,1,2-Trichloroethane	0.299	0.215	0.252	0.227	0.279	0.254	13.7	
4-Methyl-2-Pentanone	0.783	0.642	0.590	0.545	0.703	0.653	14.4	
Tetrachloroethene	0.386	0.311	0.381	0.365	0.418	0.372	10.6	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: _____ Location: _____ Group: D0-0018-06

Instrument ID: VOA 3 Calibration Date(s): 12/28/98 12/29/98

Heated Purge: (Y/N) N Calibration Times: 2334 0334

GC Column RTX624 ID: 0.53 (mm)

Lab File ID: RRF005 = M8996.D RRF20 = M8992.D
RRF50 = M8991.D RRF100 = M8993.D RRF200 = M8994.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
1,3-Dichloropropane	0.893	0.676	0.773	0.751	0.808	0.780	10.2	
Dibromochloromethane	0.426	0.324	0.400	0.403	0.455	0.402	12.1	
1,2-Dibromoethane	0.461	0.355	0.418	0.398	0.453	0.417	10.4	
2-Hexanone	0.433	0.382	0.423	0.397	0.565	0.440	16.5	
Chlorobenzene *	1.268	0.879	1.079	1.020	1.140	1.077	13.4	*
1,1,1,2-Tetrachloroethane	0.052	0.072	0.093	0.088	0.099	0.081	23.3	
Ethylbenzene	2.234	1.632	1.946	1.717	1.737	1.853	13.1	
m&p-xylenes	0.734	0.533	0.649	0.643	0.712	0.654	12.0	
o-xylene	1.773	1.207	1.425	1.388	1.496	1.458	14.1	
Styrene	1.296	0.926	1.112	1.033	1.233	1.120	13.3	
Bromoform *	0.229	0.164	0.204	0.210	0.271	0.215	18.1	*
isopropylbenzene	4.829	3.510	3.929	3.613	3.686	3.913	13.7	
Bromobenzene	2.425	1.685	1.836	1.584	1.678	1.842	18.4	
1,1,2,2-Tetrachloroethane *	1.492	1.052	1.150	1.002	1.098	1.159	16.8	*
1,2,3-Trichloropropane	1.166	0.833	0.865	0.790	0.860	0.903	16.6	
n-Propylbenzene	1.110	0.851	0.988	0.923	0.976	0.970	9.8	
2-Chlorotoluene	1.043	0.771	0.938	0.818	0.853	0.884	12.1	
4-Chlorotoluene	0.979	0.777	1.030	0.893	0.947	0.925	10.5	
1,3,5-Trimethylbenzene	3.887	2.857	3.236	2.870	2.921	3.154	13.9	
tert-Butylbenzene	3.663	2.644	3.069	2.793	3.009	3.036	12.8	
1,2,4-Trimethylbenzene	3.979	2.825	3.311	3.017	2.917	3.210	14.6	
sec-Butylbenzene	4.889	3.569	4.097	3.684	3.786	4.005	13.3	
1,3-Dichlorobenzene	1.959	1.390	1.637	1.538	1.666	1.638	12.8	
4-Isopropyltoluene	4.126	3.004	3.540	3.337	3.426	3.487	11.7	
1,4-Dichlorobenzene	2.076	1.469	1.771	1.624	1.706	1.729	13.0	
1,2-Dichlorobenzene	1.813	1.331	1.546	1.467	1.598	1.551	11.4	
n-Butylbenzene	4.043	2.997	3.450	3.199	3.242	3.386	11.8	
1,2-Dibromo-3-chloropropane	0.145	0.120	0.143	0.147	0.174	0.146	13.1	
1,2,4-Trichlorobenzene	0.995	0.816	0.887	0.868	0.968	0.907	8.1	
Hexachlorobutadiene	0.443	0.360	0.427	0.399	0.459	0.417	9.4	
Naphthalene	2.525	2.113	1.744	1.588	1.744	1.943	19.5	
1,2,3-Trichlorobenzene	0.878	0.735	0.737	0.709	0.803	0.772	8.9	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

000092

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ____________ Contract: ____________

Project No.: ____________ Site: ________ Location: ________ Group: ________

Instrument ID: ____________ Calibration Date(s): ________ ________

Heated Purge: (Y/N) __ Calibration Times: ________ ________

GC Column: ____________ ID: ________(mm)

Lab File ID:	RRF005 =	RRF20 =
RRF50 =	RRF100 =	RRF200 =

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dibromofluoromethane	0.324	0.290	0.318	0.303	0.318	0.311	4.5
1,2-Dichlorethane-d4	0.376	0.335	0.355	0.339	0.348	0.350	4.6
Toluene-d8	0.999	0.827	0.874	0.857	0.947	0.901	7.8
4-Bromofluorobenzene	0.490	0.336	0.368	0.350	0.405	0.390	15.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 10451NJ Site: _____ Location: _____ Group: D0-0018-06-

Instrument ID: VOA 3 Calibration Date: 1/24/99 Time: 1210

Lab File ID: M9421.D Init. Calib. Date(s): 12/28/98 12/29/98

Heated Purge: (Y/N) N Init. Calib. Times: 2334 0334

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.188	0.297		-58.0	
Chloromethane	0.349	0.396	0.100	-13.5	
Vinyl Chloride	0.205	0.206		-0.5	20.0
Bromomethane	0.161	0.176		-9.3	
Chloroethane	0.198	0.199		-0.5	
Acrolein	0.045	0.041		8.9	
Trichlorofluoromethane	0.303	0.291		4.0	
1,1-Dichloroethene	0.450	0.485		-7.8	20.0
Acetone	0.152	0.103		32.2	
Carbon Disulfide	1.416	1.573		-11.1	
Methylene Chloride	0.321	0.311		3.1	
trans-1,2-Dichloroethene	0.459	0.525		-14.4	
Acrylonitrile	0.109	0.103		5.5	
1,1-Dichloroethane	0.640	0.685	0.100	-7.0	
2,2-Dichloropropane	0.442	0.493		-11.5	
cis-1,2-dichloroethene	0.497	0.526		-5.8	
Bromochloromethane	0.336	0.344		-2.4	
Chloroform	0.570	0.602		-5.6	20.0
1,1,1-Trichloroethane	0.425	0.474		-11.5	
Vinyl Acetate	0.353	0.448		-26.9	
2-Butanone	0.245	0.195		20.4	
Carbon Tetrachloride	0.195	0.236		-21.0	
1,1-Dichloropropene	0.429	0.465		-8.4	
Benzene	1.162	1.212		-4.3	
1,2-Dichloroethane	0.400	0.436		-9.0	
Trichloroethene	0.311	0.309		0.6	
1,2-Dichloropropane	0.367	0.385		-4.9	20.0
Dibromomethane	0.168	0.152		9.5	
Bromodichloromethane	0.420	0.470		-11.9	
2-Chloroethyl Vinyl Ether	0.199	0.120		39.7	
cis-1,3-Dichloropropene	0.542	0.552		-1.8	
Toluene	1.094	1.112		-1.6	20.0
trans-1,3-Dichloropropene	0.477	0.464		2.7	
1,1,2-Trichloroethane	0.254	0.241		5.1	
4-Methyl-2-Pentanone	0.653	0.508		22.2	
Tetrachloroethene	0.372	0.304		18.3	

All other compounds must meet a minimum RRF of 0.010.

000094

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 10451NJ Site: Location: Group: D0-0018-06-

Instrument ID: VOA 3 Calibration Date: 1/24/99 Time: 1210

Lab File ID: M9421.D Init. Calib. Date(s): 12/28/98 12/29/98

Heated Purge: (Y/N) N Init. Calib. Times: 2334 0334

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3-Dichloropropane	0.780	0.666		14.6	
Dibromochloromethane	0.402	0.363	0.300	9.7	
1,2-Dibromoethane	0.417	0.349		16.3	
2-Hexanone	0.440	0.381		13.4	
Chlorobenzene	1.077	0.897		16.7	
1,1,1,2-Tetrachloroethane	0.081	0.075		7.4	
Ethylbenzene	1.853	1.672		9.8	20.0
m&p-xylenes	0.654	0.555	0.100	15.1	
o-xylene	1.458	1.286		11.8	
Styrene	1.120	0.997		11.0	
Bromoform	0.215	0.175	0.300	18.6	
isopropylbenzene	3.913	3.765		3.8	
Bromobenzene	1.842	1.827		0.8	
1,1,2,2-Tetrachloroethane	1.159	1.044		9.9	
1,2,3-Trichloropropane	0.903	0.801		11.3	
n-Propylbenzene	0.970	0.925		4.6	
2-Chlorotoluene	0.884	0.863		2.4	
4-Chlorotoluene	0.925	0.863		6.7	
1,3,5-Trimethylbenzene	3.154	2.951		6.4	
tert-Butylbenzene	3.036	2.991		1.5	
1,2,4-Trimethylbenzene	3.210	2.991		6.8	
sec-Butylbenzene	4.005	3.851		3.8	
1,3-Dichlorobenzene	1.638	1.576		3.8	
4-Isopropyltoluene	3.487	3.332		4.4	
1,4-Dichlorobenzene	1.729	1.576		8.8	
1,2-Dichlorobenzene	1.551	1.401		9.7	
n-Butylbenzene	3.386	3.290		2.8	
1,2-Dibromo-3-chloropropane	0.146	0.158		-8.2	
1,2,4-Trichlorobenzene	0.907	0.794		12.5	
Hexachlorobutadiene	0.417	0.407		2.4	
Naphthalene	1.943	1.599		17.7	
1,2,3-Trichlorobenzene	0.772	0.669		13.3	

All other compounds must meet a minimum RRF of 0.010.

000095

Lab Name: ____________ Contract: ____________

Project No.: ________ Site: ________ Location: ________ Group: ________

Instrument ID: ____________ Calibration Date: ________ Time: ________

Lab File ID: ____________ Init. Calib. Date(s): ________ ________

Heated Purge: (Y/N) ____ Init. Calib. Times: ________ ________

GC Column: ________ ID: ________ (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.311	0.302		2.9	
1,2-Dichlorethane-d4	0.350	0.359		-2.6	
Toluene-d8	0.901	0.808		10.3	
4-Bromofluorobenzene	0.390	0.380		2.6	

All other compounds must meet a minimum RRF of 0.010.

000096

E.

SURROGATE COMPOUND RECOVERY RESULTS SUMMARY

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTA

Project No.: 10451NJ Site: Location: Group: D0-0018-06-001

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	93	100	94	96	
02	D0-0018-06-FIELDBLANK	100	110	97	98	
03	D0-0018-06-002	97 D	105 D	97 D	95 D	
04	D0-0018-06-001	101	110	98	101	
05	D0-0018-06-007	94	103	93	95	
06	D0-0018-06-005	100	109	96	95	
07	D0-0018-06-006	97	107	94	96	
08						
09						
10						
11						
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14						
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16						
17						
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19						
20						
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24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 (DBFM) = Dibromofluoromethane	(86-118)
SMC2 (DCE) = 1,2-Dichlorethane-d4	(80-120)
SMC3 (TOL) = Toluene-d8	(88-110)
SMC4 (BFB) = 4-Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

000098

F.

MS/ MSD RESULTS SUMMARY

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: LEVINE, FRICKE, RECON

Project No. 9872NJ Site: _____ Location: _____ Group: KO-1

Matrix Spike - Sample No.: KO-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	55	110	(61-145)
Benzene	50	0	58	116	(60-140)
Trichloroethene	50	0	51	102	(40-160)
Toluene	50	0	58	116	(76-125)
Chlorobenzene	50	0	56	112	(75-130)

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	54	108	2	14	(61-145)
Benzene	50	57	114	2	14	(60-140)
Trichloroethene	50	51	102	0	13	(40-160)
Toluene	50	57	114	2	13	(76-125)
Chlorobenzene	50	55	110	2	13	(75-130)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Comments: _____

000100

G.

INTERNAL STANDARD RESULTS SUMMARY

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 10451NJ Site: Location: Group: D0-0018-06-

Lab File ID (Standard): M9421.D Date Analyzed: 1/24/99

Instrument ID: VOA 3 Time Analyzed: 1210

GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) N

		IS1 (FB) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	4884416	14.49	3716103	20.84	1466523	25.58
	UPPER LIMIT	9768832	14.99	7432206	21.34	2933046	26.08
	LOWER LIMIT	2442208	13.99	1858052	20.34	733262	25.08
	SAMPLE NO.						
01	VBLK01	5641012	14.49	4193626	20.85	1619336	25.59
02	D0-0018-06-FIELDBLAN	5425531	14.48	4114416	20.84	1574994	25.58
03	D0-0018-06-002	5437618	14.49	4071329	20.84	1524265	25.58
04	D0-0018-06-001	5163419	14.47	3938793	20.82	1455667	25.56
05	D0-0018-06-007	5463966	14.46	4023968	20.82	1533494	25.56
06	D0-0018-06-005	5102768	14.47	3790232	20.82	1420171	25.56
07	D0-0018-06-006	5160263	14.47	3983199	20.82	1471455	25.56
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FB) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

000102

H.

CHROMATOGRAMS

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9432.D
Acq Time : 24 Jan 99 8:51 pm
Sample : 10451NJ-64899
Misc : 5ML
Quant Time: Jan 25 6:47 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.47	96	5163419	50.00 ug/L	0.00
42) Chlorobenzene-d5	20.82	117	3938793	50.00 ug/L	0.01
56) 1,4-dichlorobenzene-d4	25.56	152	1455667	50.00 ug/L	0.01
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	12.76	113	1625145	50.63 ug/L	101.26%
29) 1,2-Dichlorethane-d4	13.80	65	1982626	54.79 ug/L	109.59%
37) Toluene-d8	17.72	98	4574115	49.17 ug/L	98.35%
41) 4-Bromofluorobenzene	23.30	95	2034350	50.54 ug/L	101.09%
Target Compounds					Qvalue
44) tetrachloroethene	19.23	166	292913	9.99 ug/L	98
50) 1,1,1,2-tetrachloroethane	19.23	133	72713	9.57 ug/L	88

000104

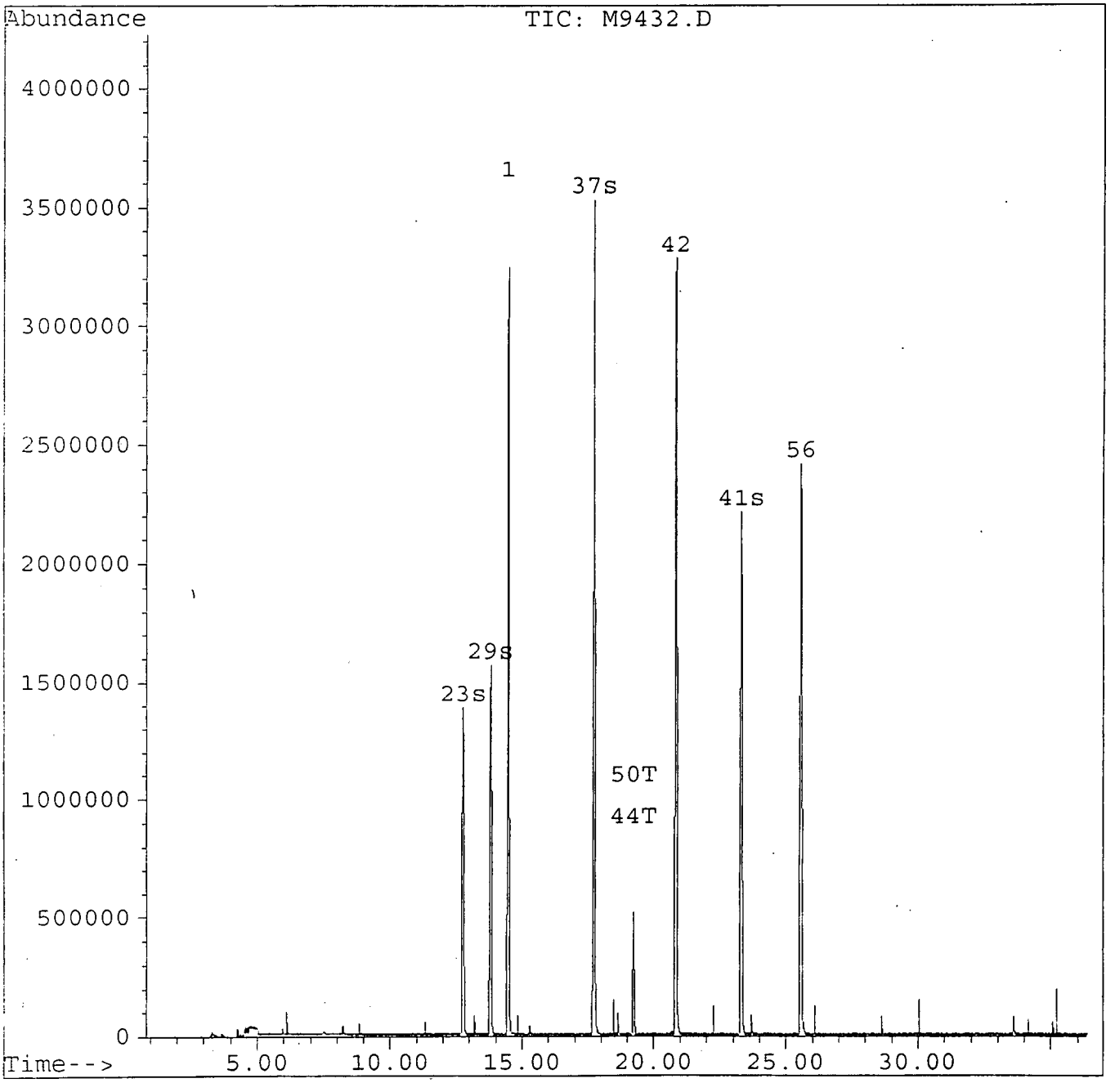
(#) = qualifier out of range (m) = manual integration

Quantitation Report

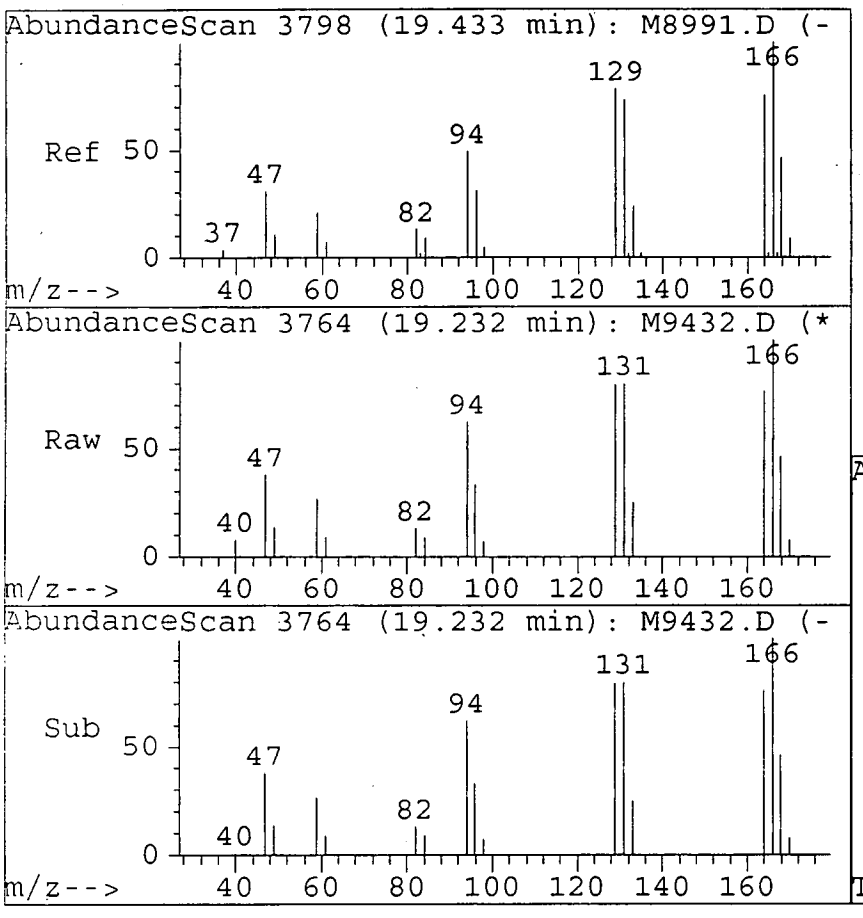
Data File : D:\HPCHEM\3\DATA\V30124\M9432.D
Acq Time : 24 Jan 99 8:51 pm
Sample : 10451NJ-64899
Misc : 5ML
Quant Time: Jan 25 6:47 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



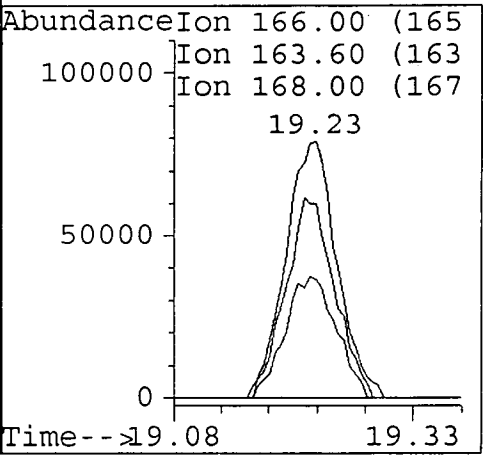
000105

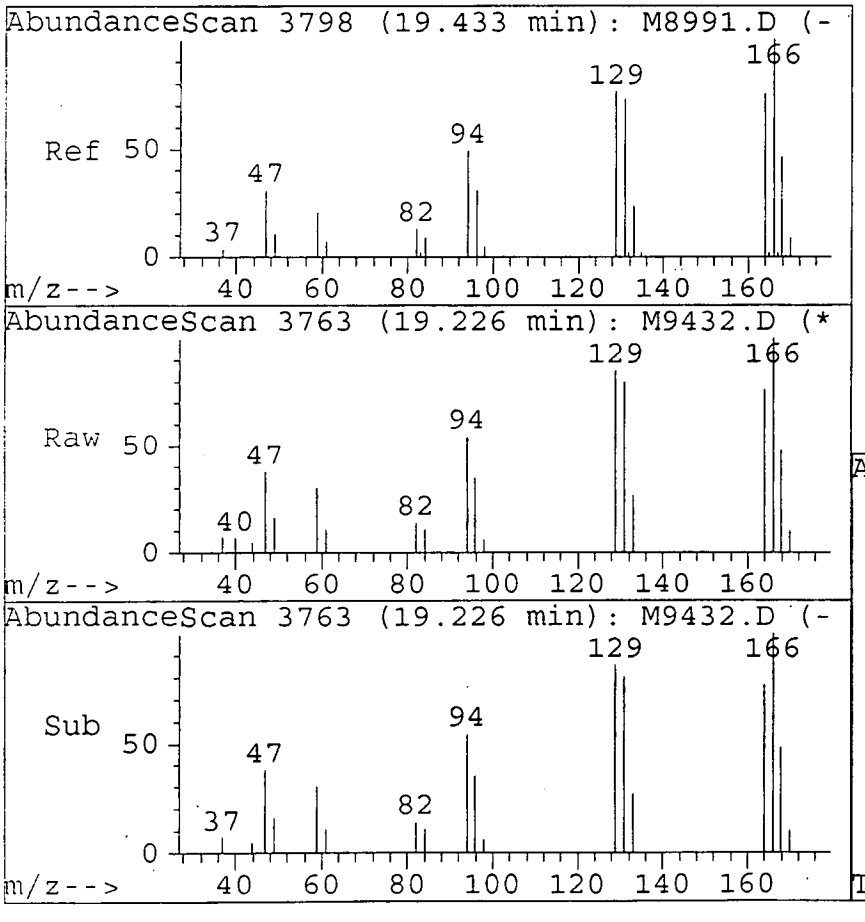


#44
tetrachloroethene
Concen: 9.99 ug/L
RT: 19.23 min Scan# 3764
Delta R.T. 0.02 min
Lab File: M9432.D
Acq: 24 Jan 99 8:51 pm

Tgt Ion:166 Resp: 292913

Ion	Ratio	Lower	Upper
166	100		
164	76.0	54.5	101.3
168	46.5	33.4	62.0
0	0.0	0.0	0.0

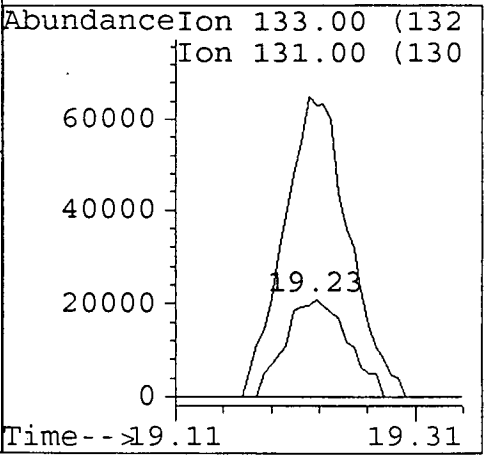




#50
1,1,1,2-tetrachloroethane
Concen: 9.57 ug/L
RT: 19.23 min Scan# 3763
Delta R.T. 0.01 min
Lab File: M9432.D
Acq: 24 Jan 99 8:51 pm

Tgt Ion:133 Resp: 72713

Ion	Ratio	Lower	Upper
133	100		
131	302.0	228.9	425.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000106

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9432.D
Acq Time : 24 Jan 99 8:51 pm
Sample : 10451NJ-64899
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000107

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9429.D
Acq Time : 24 Jan 99 6:38 pm
Sample : 10451NJ-64900 1:50 DIL
Misc : 5ML
Quant Time: Jan 25 6:46 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.49	96	5437618	50.00 ug/L	0.03
42) Chlorobenzene-d5	20.84	117	4071329	50.00 ug/L	0.03
56) 1,4-dichlorobenzene-d4	25.58	152	1524265	50.00 ug/L	0.03
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	12.77	113	1631059	48.25 ug/L	96.50%
29) 1,2-Dichlorethane-d4	13.81	65	2006175	52.65 ug/L	105.30%
37) Toluene-d8	17.74	98	4753092	48.52 ug/L	97.04%
41) 4-Bromofluorobenzene	23.31	95	2010746	47.44 ug/L	94.87%
Target Compounds					Qvalue
31) trichloroethene	15.31	130	663780	19.61 ug/L	92

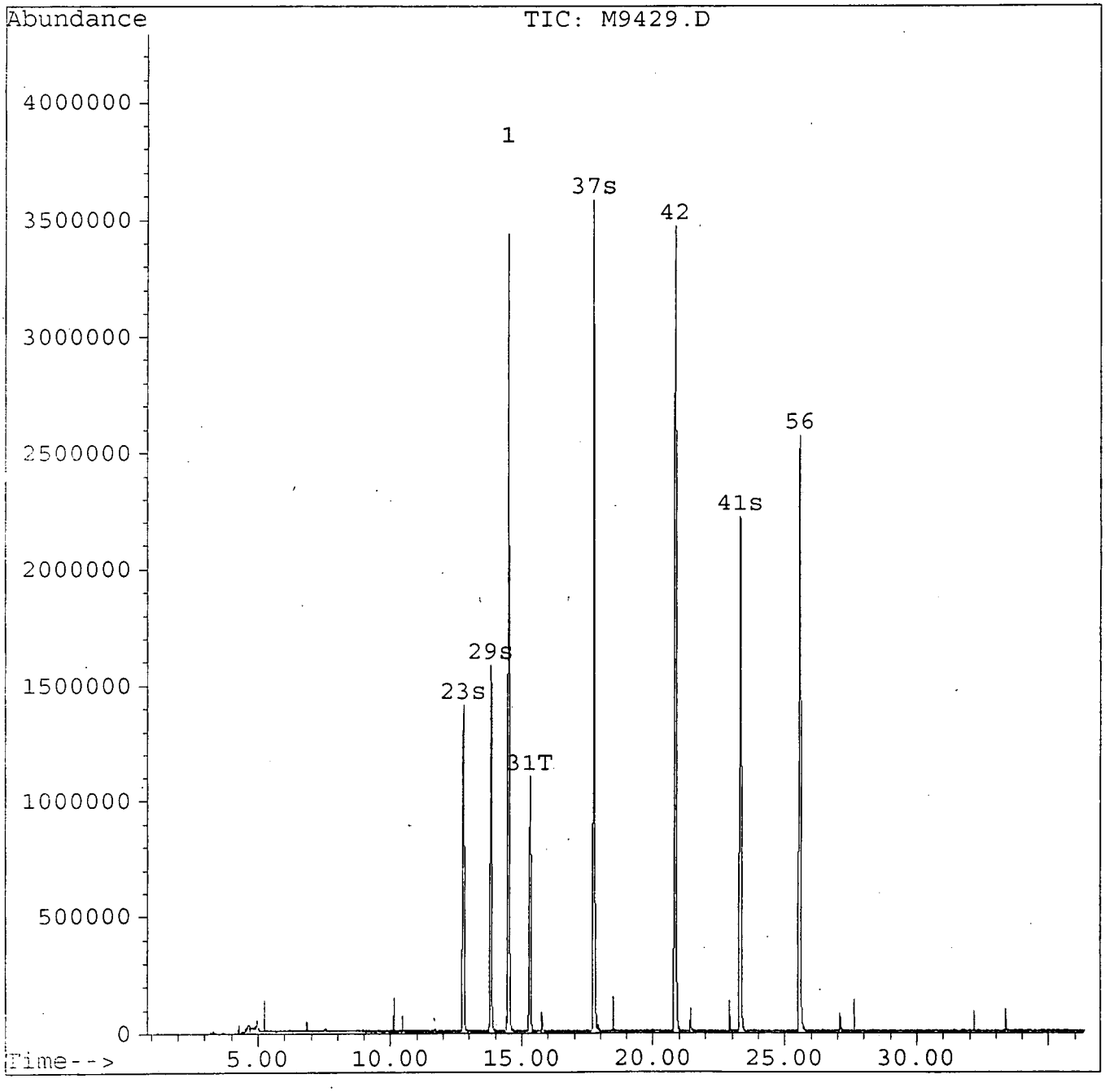
(#) = qualifier out of range (m) = manual integration
M9429.D V31228CW.M Mon Jan 25 06:46:18 1999 VOA3 Page 1

Quantitation Report

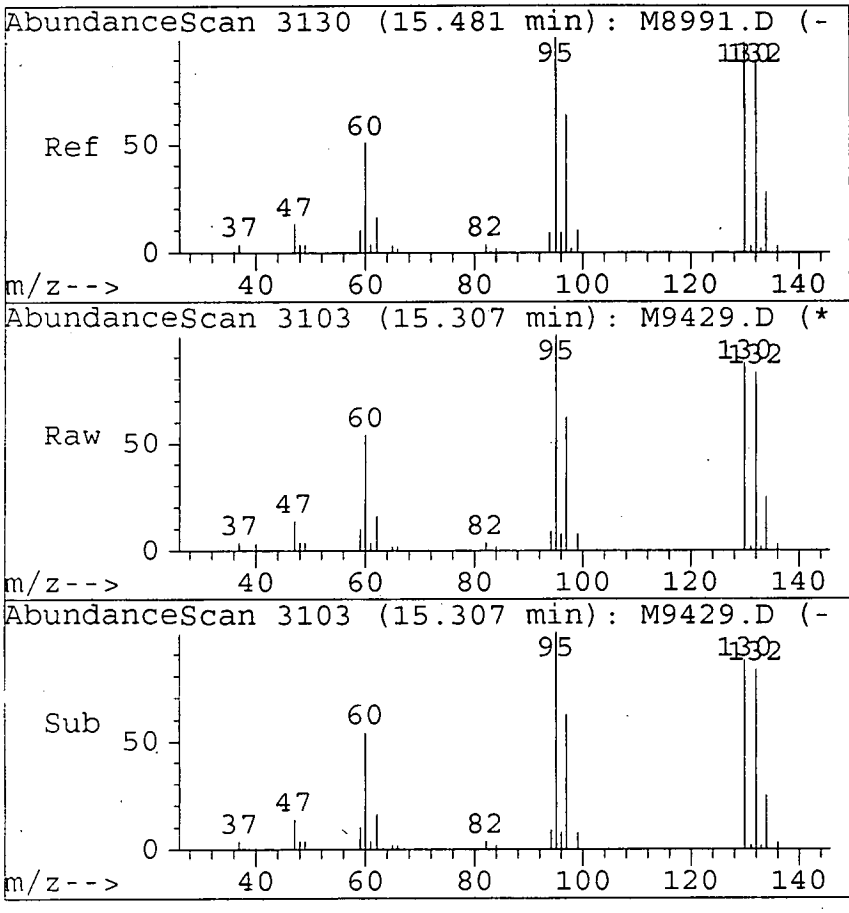
Data File : D:\HPCHEM\3\DATA\V30124\M9429.D
Acq Time : 24 Jan 99 6:38 pm
Sample : 10451NJ-64900 1:50 DIL
Misc : 5ML
Quant Time: Jan 25 6:46 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



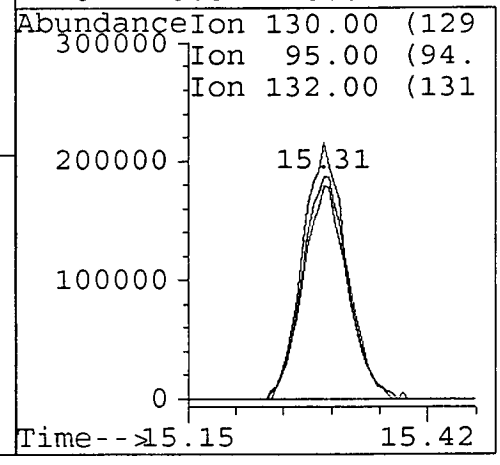
000109



#31
trichloroethene
Concen: 19.61 ug/L
RT: 15.31 min Scan# 3103
Delta R.T. 0.02 min
Lab File: M9429.D
Acq: 24 Jan 99 6:38 pm

Tgt Ion:130 Resp: 663780

Ion	Ratio	Lower	Upper
130	100		
95	115.5	72.9	135.3
132	95.5	64.5	119.9
0	0.0	0.0	0.0



000110

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9429.D
Acq Time : 24 Jan 99 6:38 pm
Sample : 10451NJ-64900 1:50 DIL
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000111

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9433.D
Acq Time : 24 Jan 99 9:36 pm
Sample : 10451NJ-64901
Misc : 5ML
Quant Time: Jan 25 6:48 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.46	96	5463966	50.00 ug/L	0.00
42) Chlorobenzene-d5	20.82	117	4023968	50.00 ug/L	0.01
56) 1,4-dichlorobenzene-d4	25.56	152	1533494	50.00 ug/L	0.01
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	12.75	113	1595947	46.98 ug/L	93.97%
29) 1,2-Dichlorethane-d4	13.80	65	1980453	51.72 ug/L	103.45%
37) Toluene-d8	17.72	98	4583913	46.57 ug/L	93.14%
41) 4-Bromofluorobenzene	23.30	95	2017696	47.37 ug/L	94.74%

Target Compounds Qvalue

000112

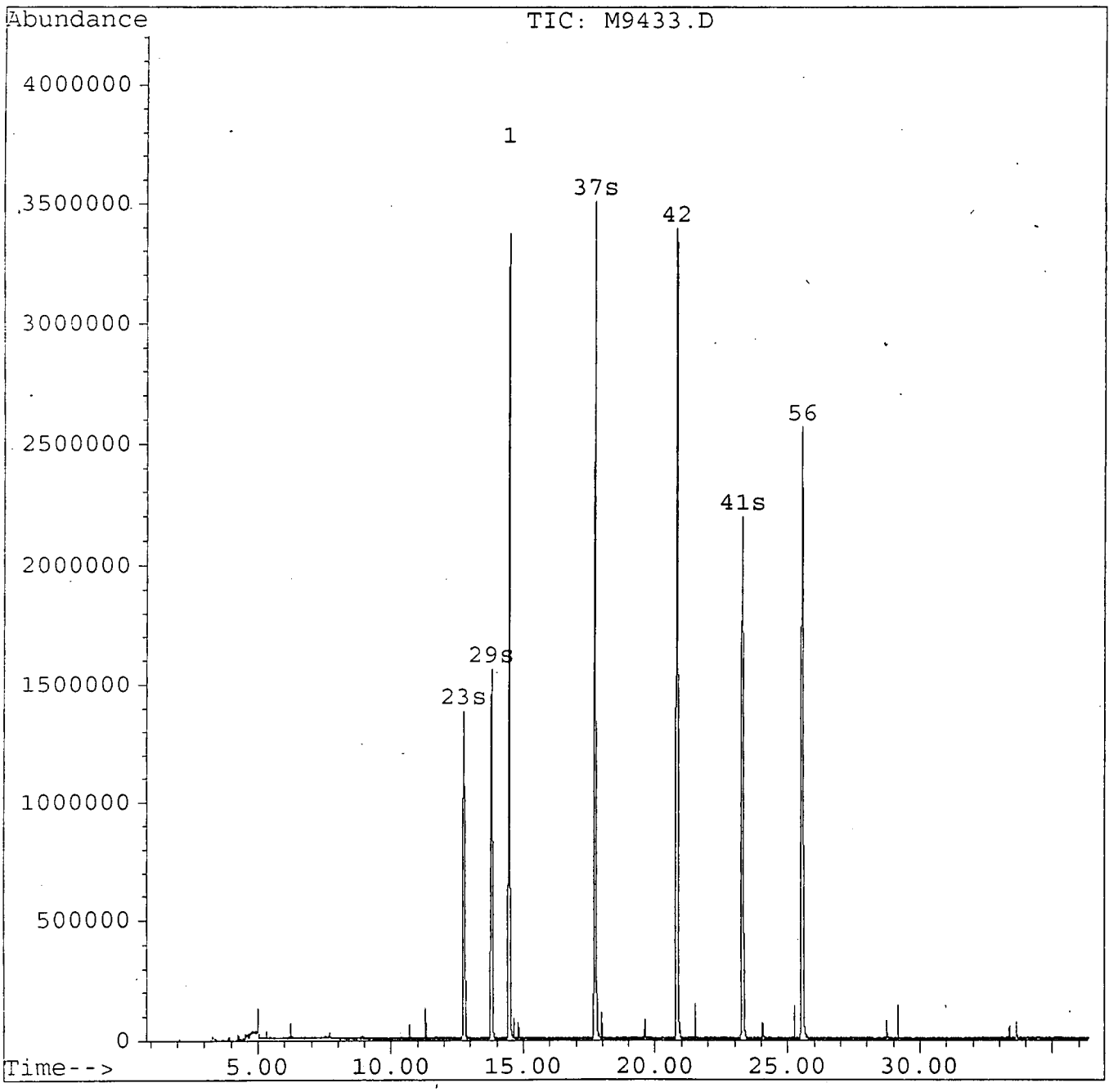
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9433.D
Acq Time : 24 Jan 99 9:36 pm
Sample : 10451NJ-64901
Misc : 5ML
Quant Time: Jan 25 6:48 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



000113

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9433.D
Acq Time : 24 Jan 99 9:36 pm
Sample : 10451NJ-64901
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000114

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9423.D
Acq Time : 24 Jan 99 2:14 pm
Sample : 10451NJ-64902
Misc : 5ML
Quant Time: Jan 25 6:43 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.48	96	5425531	50.00 ug/L	0.02
42) Chlorobenzene-d5	20.84	117	4114416	50.00 ug/L	0.03
56) 1,4-dichlorobenzene-d4	25.58	152	1574994	50.00 ug/L	0.04
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	12.77	113	1679282	49.79 ug/L	99.58%
29) 1,2-Dichlorethane-d4	13.82	65	2089045	54.95 ug/L	109.89%
37) Toluene-d8	17.74	98	4721601	48.31 ug/L	96.61%
41) 4-Bromofluorobenzene	23.33	95	2067328	48.88 ug/L	97.76%
Target Compounds					**Qvalue**
12) methylene chloride	8.94	84	129978	3.74 ug/L	91

000115

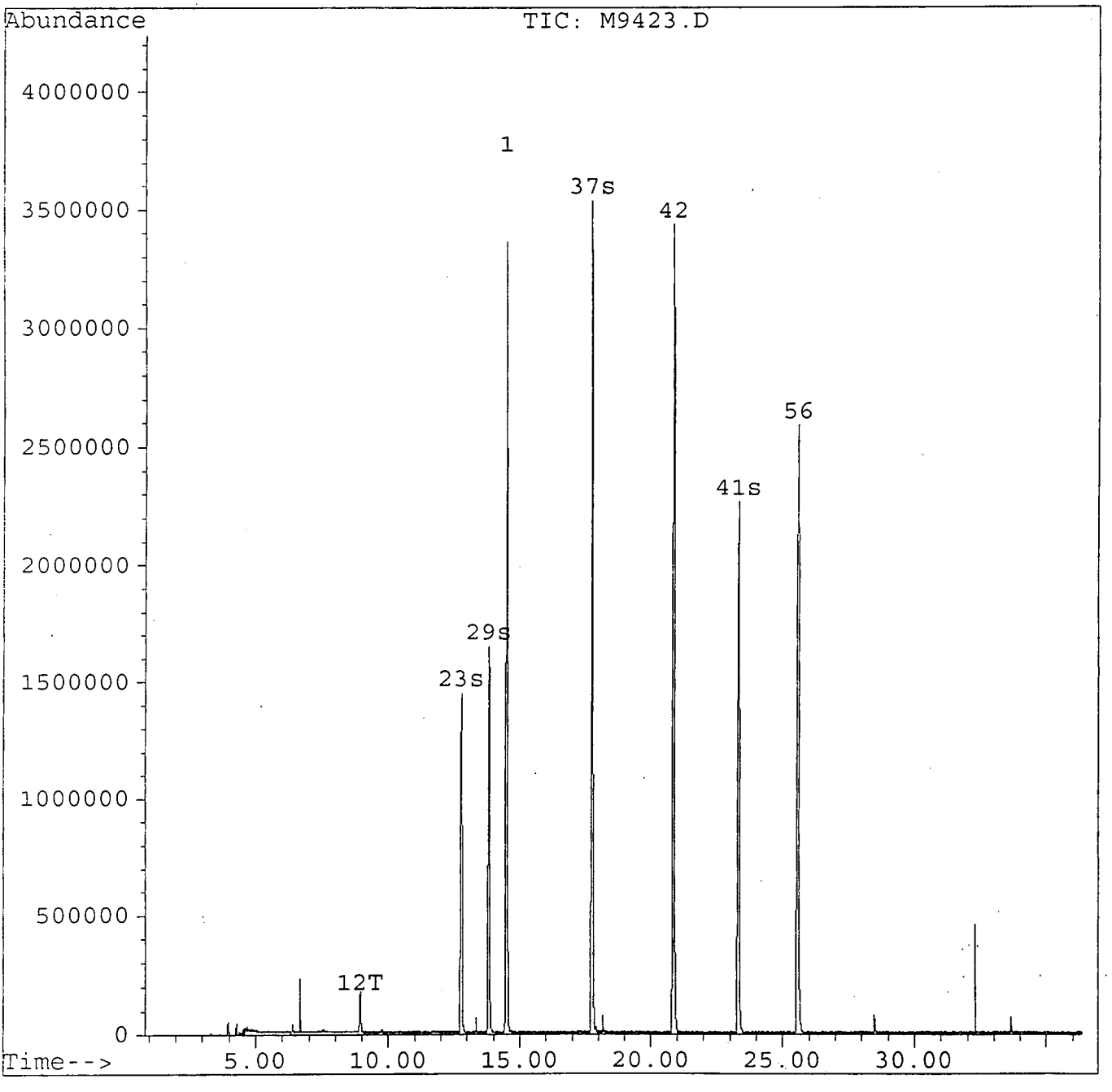
(#) = qualifier out of range (m) = manual integration

Quantitation Report

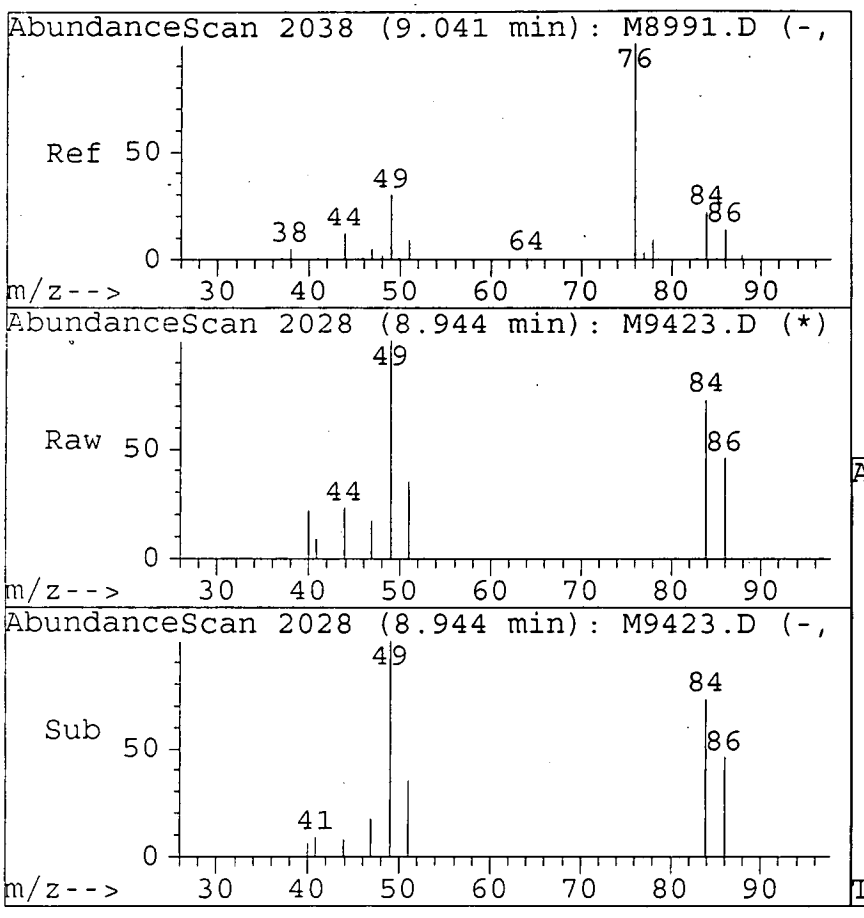
Data File : D:\HPCHEM\3\DATA\V30124\M9423.D
Acq Time : 24 Jan 99 2:14 pm
Sample : 10451NJ-64902
Misc : 5ML
Quant Time: Jan 25 6:43 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



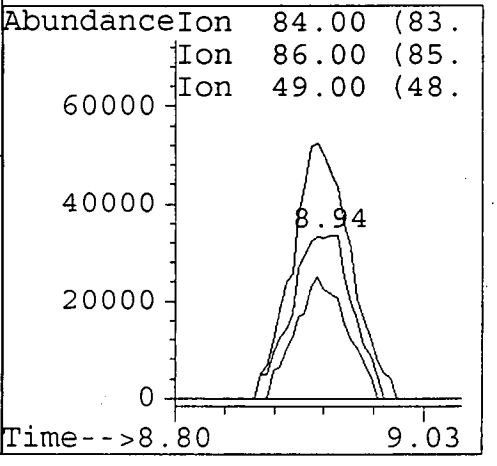
000116



#12
methylene chloride
Concen: 3.74 ug/L
RT: 8.94 min Scan# 2028
Delta R.T. 0.02 min
Lab File: M9423.D
Acq: 24 Jan 99 2:14 pm

Tgt Ion:84 Resp: 129978

Ion	Ratio	Lower	Upper
84	100		
86	63.6	41.3	76.7
49	137.1	104.5	194.1
0	0.0	0.0	0.0



C00117

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9423.D
Acq Time : 24 Jan 99 2:14 pm
Sample : 10451NJ-64902
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000118

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9434.D
Acq Time : 24 Jan 99 10:21 pm
Sample : 10451NJ-64905
Misc : 5ML
Quant Time: Jan 25 6:48 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.47	96	5102768	50.00 ug/L	0.00
42) Chlorobenzene-d5	20.82	117	3790232	50.00 ug/L	0.01
56) 1,4-dichlorobenzene-d4	25.56	152	1420171	50.00 ug/L	0.01
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	12.76	113	1592703	50.21 ug/L	100.42%
29) 1,2-Dichlorethane-d4	13.80	65	1942659	54.33 ug/L	108.66%
37) Toluene-d8	17.72	98	4413231	48.01 ug/L	96.01%
41) 4-Bromofluorobenzene	23.30	95	1897567	47.70 ug/L	95.41%
Target Compounds					**Qvalue**
31) trichloroethene	15.29	130	329874	10.38 ug/L	95

^00119

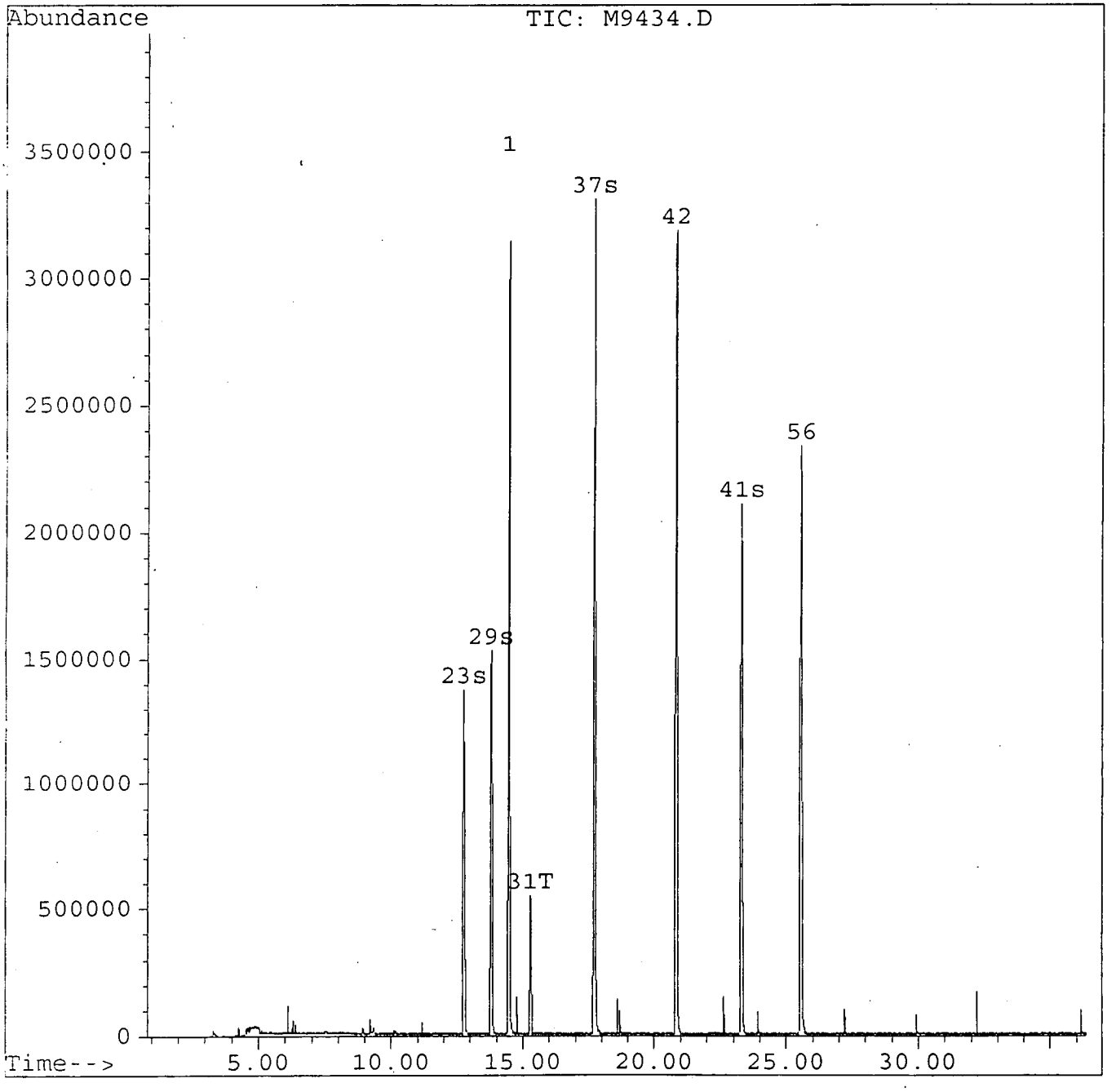
(#) = qualifier out of range (m) = manual integration

Quantitation Report

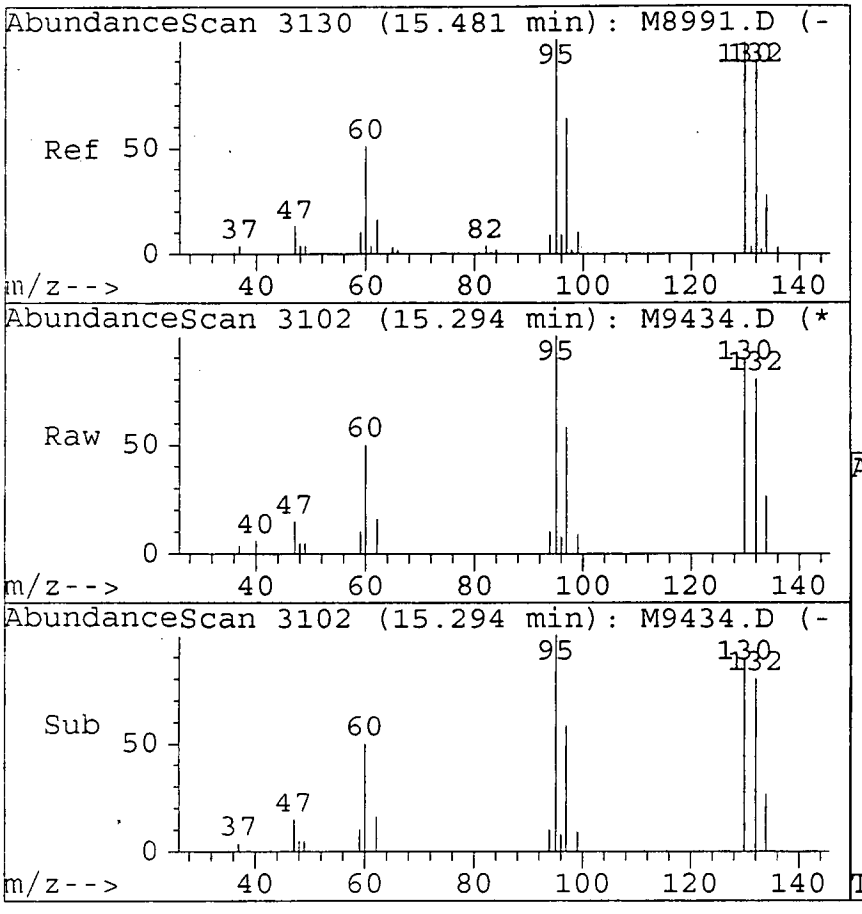
Data File : D:\HPCHEM\3\DATA\V30124\M9434.D
Acq Time : 24 Jan 99 10:21 pm
Sample : 10451NJ-64905
Misc : 5ML
Quant Time: Jan 25 6:48 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



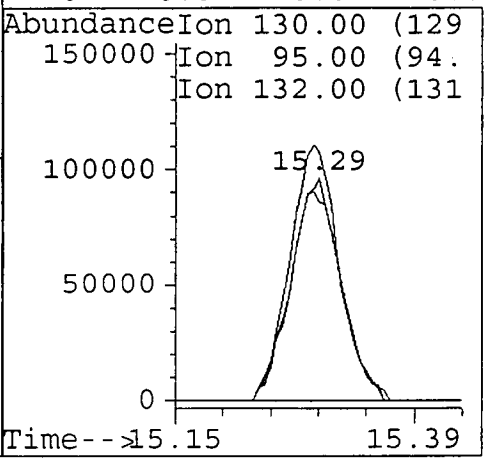
000120



#31
trichloroethene
Concen: 10.38 ug/L
RT: 15.29 min Scan# 3102
Delta R.T. 0.01 min
Lab File: M9434.D
Acq: 24 Jan 99 10:21 pm

Tgt Ion:130 Resp: 329874

Ion	Ratio	Lower	Upper
130	100		
95	112.1	72.9	135.3
132	89.7	64.5	119.9
0	0.0	0.0	0.0



000121

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9434.D
Acq Time : 24 Jan 99 10:21 pm
Sample : 10451NJ-64905
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000122

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9435.D
Acq Time : 24 Jan 99 11:05 pm
Sample : 10451NJ-64906
Misc : 5ML
Quant Time: Jan 25 6:49 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.47	96	5160263	50.00 ug/L	0.00
42) Chlorobenzene-d5	20.82	117	3983199	50.00 ug/L	0.01
56) 1,4-dichlorobenzene-d4	25.56	152	1471455	50.00 ug/L	0.02
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	12.76	113	1556821	48.53 ug/L	97.06%
29) 1,2-Dichlorethane-d4	13.80	65	1932509	53.44 ug/L	106.88%
37) Toluene-d8	17.72	98	4383267	47.15 ug/L	94.30%
41) 4-Bromofluorobenzene	23.30	95	1930017	47.98 ug/L	95.96%

Target Compounds Qvalue

000123

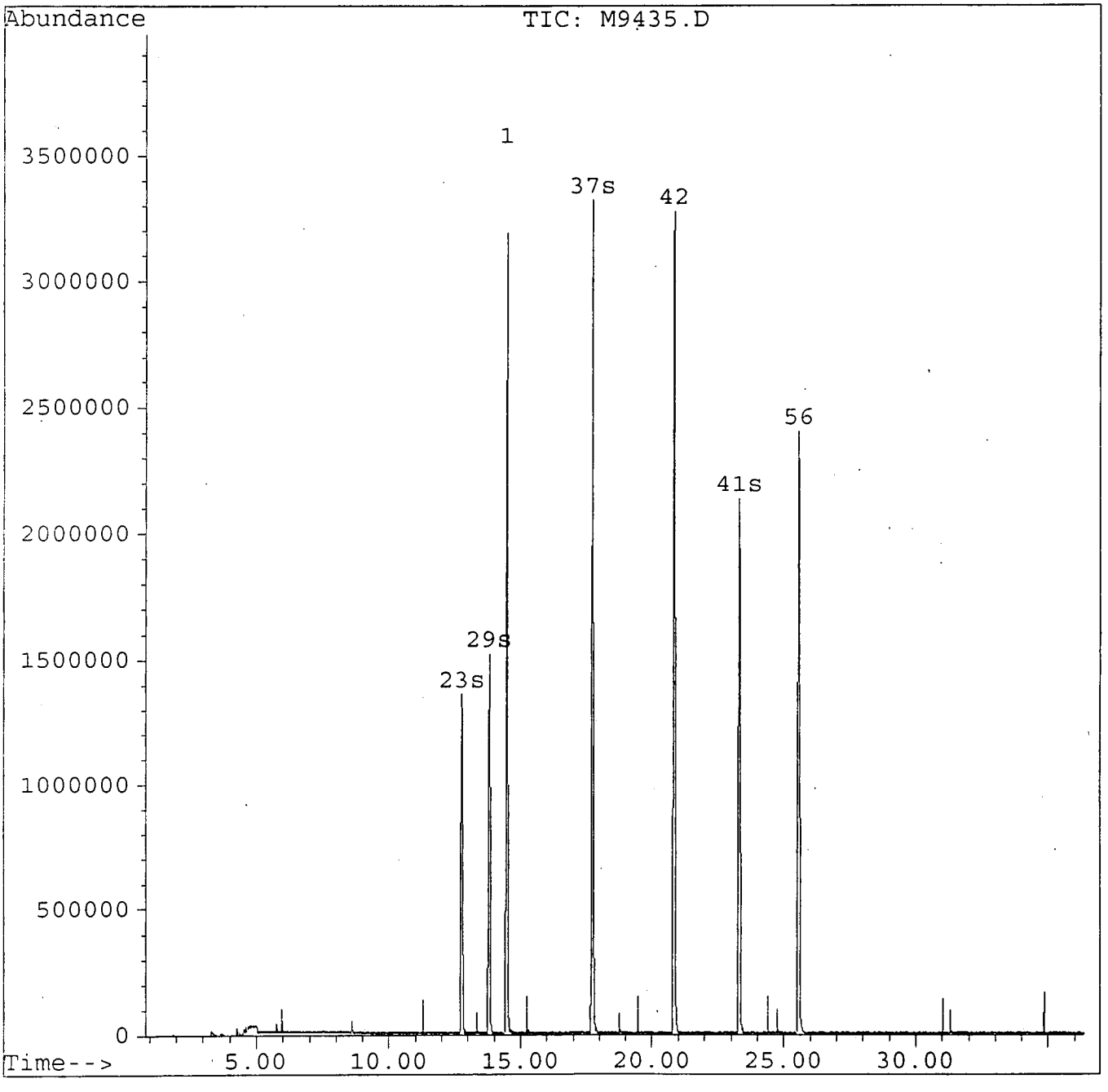
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9435.D
Acq Time : 24 Jan 99 11:05 pm
Sample : 10451NJ-64906
Misc : 5ML
Quant Time: Jan 25 6:49 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



000124

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9435.D
Acq Time : 24 Jan 99 11:05 pm
Sample : 10451NJ-64906
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000125

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9422.D
Acq Time : 24 Jan 99 1:30 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Jan 24 15:49 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.49	96	5641012	50.00 ug/L	0.03
42) Chlorobenzene-d5	20.85	117	4193626	50.00 ug/L	0.04
56) 1,4-dichlorobenzene-d4	25.59	152	1619336	50.00 ug/L	0.04

System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	12.77	113	1626616	46.38 ug/L	92.77%
29) 1,2-Dichlorethane-d4	13.82	65	1975045	49.96 ug/L	99.93%
37) Toluene-d8	17.75	98	4799005	47.22 ug/L	94.45%
41) 4-Bromofluorobenzene	23.34	95	2102163	47.81 ug/L	95.61%

Target Compounds Qvalue

000126

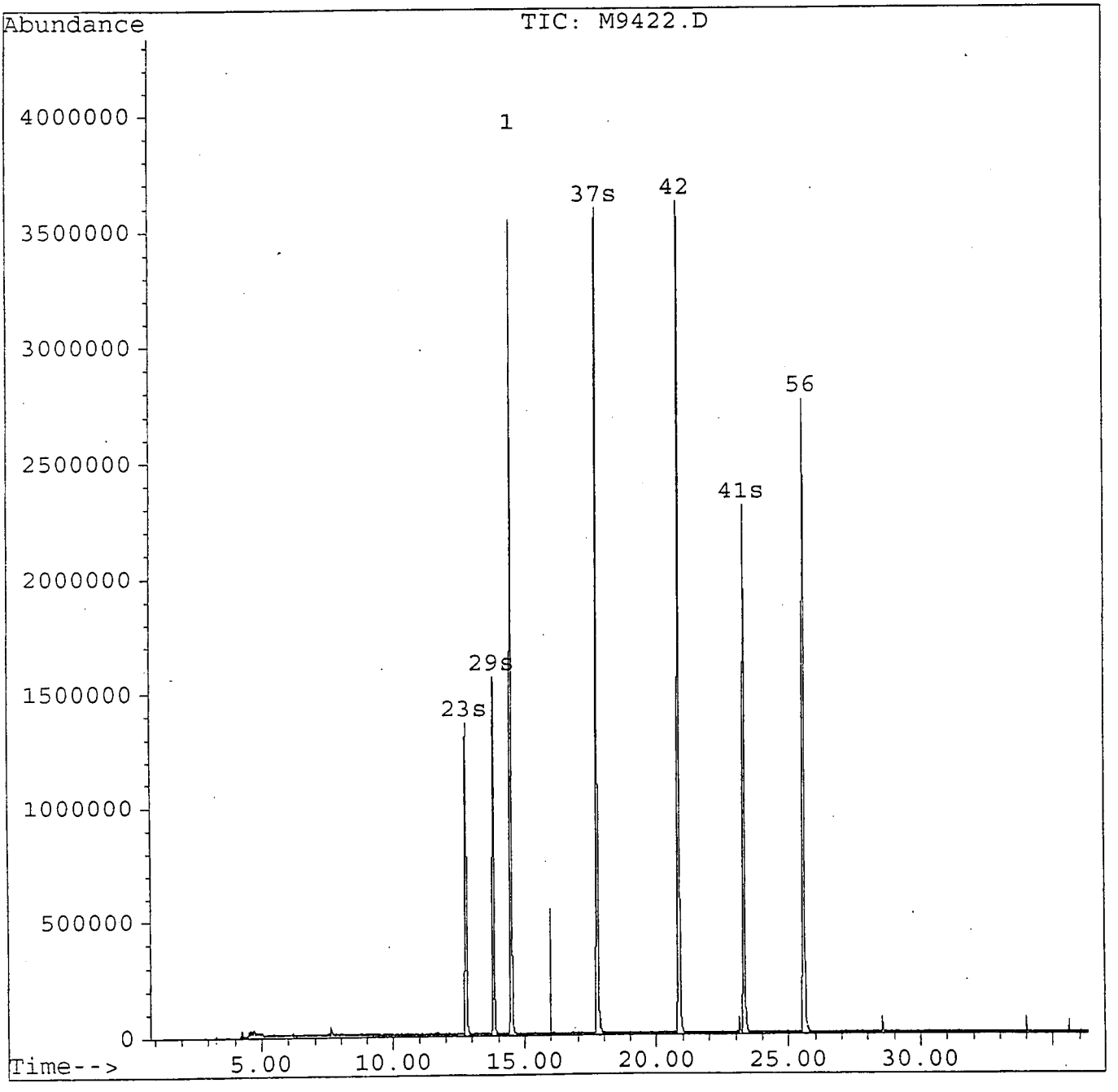
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V30124\M9422.D
Acq Time : 24 Jan 99 1:30 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Jan 24 15:49 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Last Update : Thu Jan 21 07:12:15 1999
Response via : Multiple Level Calibration



000127

Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V30124\M9422.D
Acq Time : 24 Jan 99 1:30 pm
Sample : PRO BLK
Misc : 5ML

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\V31228CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000128

IV.

METALS DATA

A.

ANALYTICAL RESULTS SUMMARY

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-002

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64900S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.0	B		P
7440-38-2	Arsenic	5.0	B		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	149			P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	34.2			P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	27.1			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64900DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	58.0	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-007

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64901S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.0	B		P
7440-38-2	Arsenic	6.2	B		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	33.7	B		P
7439-92-1	Lead	3.1			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	25.6			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64901DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64902S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.1	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	15.0	U		P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	5.3	B		P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-F

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64902DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

DO-0018-06-004

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64904S

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.3	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7439-89-6	Iron	61.9	B		P
7439-92-1	Lead	1.0	U		P
7439-96-5	Manganese	7.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	25.6			P
	Cyanide	4.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METAL

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

DO-0018-06-0

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Lab Sample ID: 64904DS

Level (low/med): LOW Date Received: 01/20/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	15.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METAL

B.

BLANK RESULTS SUMMARY

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	22.0	B	27.9	B	-6.3	B	9.6	B	27.460	B	P
Arsenic	4.0	U	7.2	B	4.0	U	5.1	B	4.000	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Lead	1.0	U	1.0	U	1.0	U	1.1	B	1.000	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV
Zinc	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Cyanide	4.0	U	4.0	U	4.0	U	4.0	U	4.000	U	CA

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			11.2	B	11.3	B	19.9	B			P
Arsenic			6.1	B	4.8	B	6.2	B			P
Cadmium			1.0	U	1.0	U	1.0	U			P
Iron			15.0	U	15.0	U	15.0	U			P
Lead			1.0	U	1.0	U	1.0	U			P
Manganese			1.0	U	1.0	U	1.0	U			P
Mercury			0.2	U	0.2	U	0.2	U			CV
Zinc			2.0	U	2.0	U	2.0	U			P
Cyanide											NR

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			24.1	B	27.2	B	28.2	B			P
Arsenic			6.1	B	4.0	U	6.2	B			P
Cadmium			1.0	U	1.0	U	1.0	U			P
Iron			15.0	U	-17.8	B	15.0	U			P
Lead			1.0	U	1.0	U	1.0	U			P
Manganese			1.0	U	1.0	U	1.0	U			P
Mercury			0.2	U							CV
Zinc			2.0	U	2.0	U	2.0	U			P
Cyanide											NR

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			28.8	B	28.0	B	23.5	B			P
Arsenic			4.0	U	6.0	B	4.0	U			P
Cadmium			1.0	U	1.0	U	1.0	U			P
Iron			15.0	U	15.0	U	15.0	U			P
Lead			1.0	U	1.0	U	1.0	U			P
Manganese			1.0	U	1.0	U	1.0	U			P
Mercury											NR
Zinc			2.0	U	2.0	U	2.0	U			P
Cyanide											NR

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			25.5	B	27.8	B					P
Arsenic			5.0	B	6.7	B					P
Cadmium			1.0	U	1.0	U					P
Iron			15.0	U	15.0	U					P
Lead			1.0	U	1.0	U					P
Manganese			1.0	U	1.0	U					P
Mercury											NR
Zinc			2.0	U	2.0	U					P
Cyanide											NR

C.

CALIBRATION SUMMARY

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	1956.0	2123.58	108.6	25000.0	25163.10	100.7	25828.97	103.3	P
Arsenic	50.9	52.00	102.2	2500.0	2596.10	103.8	2709.13	108.4	P
Cadmium	510.0	505.66	99.1	2500.0	2432.79	97.3	2591.24	103.6	P
Iron	1985.0	2119.19	106.8	10000.0	10671.57	106.7	10799.24	108.0	P
Lead	4938.0	4909.52	99.4	2500.0	2366.90	94.7	2501.88	100.1	P
Manganese	491.0	485.72	98.9	2500.0	2364.16	94.6	2470.34	98.8	P
Mercury	4.1	4.13	100.7	5.0	5.09	101.8	4.77	95.4	CV
Zinc	3012.0	3050.96	101.3	2500.0	2494.66	99.8	2658.52	106.3	P
Cyanide	90.0	91.50	101.7	500.0	509.20	101.8	512.70	102.5	CA

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	24584.54	98.3	25236.40	100.9	P
Arsenic				2500.0	2570.58	102.8	2645.54	105.8	P
Cadmium				2500.0	2404.28	96.2	2508.18	100.3	P
Iron				10000.0	10482.91	104.8	10954.00	109.5	P
Lead				2500.0	2356.69	94.3	2433.01	97.3	P
Manganese				2500.0	2333.84	93.4	2416.46	96.7	P
Mercury				5.0	4.98	99.6	4.77	95.4	CV
Zinc				2500.0	2461.70	98.5	2590.14	103.6	P
Cyanide				500.0	510.00	102.0			CA

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	25231.42	100.9	25134.31	100.5	P
Arsenic				2500.0	2647.23	105.9	2647.10	105.9	P
Cadmium				2500.0	2510.14	100.4	2487.56	99.5	P
Iron				10000.0	10880.86	108.8	10876.76	108.8	P
Lead				2500.0	2437.14	97.5	2407.59	96.3	P
Manganese				2500.0	2417.26	96.7	2383.01	95.3	P
Mercury				5.0	5.19	103.8	5.30	106.0	CV
Zinc				2500.0	2612.96	104.5	2615.16	104.6	P
Cyanide									NR

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	24661.79	98.6	23703.42	94.8	P
Arsenic				2500.0	2619.16	104.8	2665.64	106.6	P
Cadmium				2500.0	2456.00	98.2	2501.32	100.1	P
Iron				10000.0	10828.14	108.3	10412.70	104.1	P
Lead				2500.0	2372.72	94.9	2505.36	100.2	P
Manganese				2500.0	2396.43	95.9	2438.56	97.5	P
Mercury				5.0	4.88	97.6			CV
Zinc				2500.0	2603.56	104.1	2556.13	102.2	P
Cyanide									NR

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	23378.53	93.5	23308.00	93.2	P
Arsenic				2500.0	2655.62	106.2	2629.30	105.2	P
Cadmium				2500.0	2480.42	99.2	2437.10	97.5	P
Iron				10000.0	10285.54	102.9	10178.26	101.8	P
Lead				2500.0	2484.18	99.4	2457.36	98.3	P
Manganese				2500.0	2401.92	96.1	2379.32	95.2	P
Mercury									NR
Zinc				2500.0	2550.80	102.0	2513.28	100.5	P
Cyanide									NR

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	23251.64	93.0	23112.44	92.4	P
Arsenic				2500.0	2623.30	104.9	2620.51	104.8	P
Cadmium				2500.0	2435.30	97.4	2415.98	96.6	P
Iron				10000.0	10161.22	101.6	10056.76	100.6	P
Lead				2500.0	2459.41	98.4	2449.79	98.0	P
Manganese				2500.0	2366.42	94.7	2349.53	94.0	P
Mercury									NR
Zinc				2500.0	2520.98	100.8	2505.82	100.2	P
Cyanide									NR

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				25000.0	25257.76	101.0	24977.01	99.9	P
Arsenic				2500.0	2574.22	103.0	2556.48	102.3	P
Cadmium				2500.0	2379.90	95.2	2348.18	93.9	P
Iron				10000.0	10740.70	107.4	10586.44	105.9	P
Lead				2500.0	2409.27	96.4	2387.76	95.5	P
Manganese				2500.0	2313.29	92.5	2283.92	91.4	P
Mercury									NR
Zinc				2500.0	2572.85	102.9	2543.28	101.7	P
Cyanide									NR

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ANALYSIS REPORT

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

AA CRDL Standard Source: INOR-VEN

ICP CRDL Standard Source: INOR-VEN

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Arsenic				20.0	23.44	117.2	21.27	106.4
Cadmium				10.0	10.41	104.1	9.82	98.2
Iron								
Lead				6.0	5.39	89.8	6.24	104.0
Manganese				30.0	31.33	104.4	29.64	98.8
Mercury	0.2	0.21	105.0					
Zinc				40.0	41.53	103.8	40.76	101.9

ANALYSIS REPORT

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

AA CRDL Standard Source:

ICP CRDL Standard Source: INOR-VEN

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Arsenic				20.0			22.94	114.7
Cadmium				10.0			9.72	97.2
Iron								
Lead				6.0			6.28	104.7
Manganese				30.0			29.33	97.8
Mercury								
Zinc				40.0			41.34	103.4

CHEMTECH CONSULTING GROUP

D.

ICP
ICS RESULTS SUMMARY

ANALYSIS REPORT

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

ICP ID Number: P0 ICS Source: EPA-LV

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	495800	505595	481968	476729.7	94.3	478787	477999.4	94.5
Arsenic	0	97	1	96.5	99.5	6	91.3	94.1
Cadmium	0	871	3	859.5	98.7	1	783.8	90.0
Iron	186000	177250	183307	180940.1	102.1	182647	182541.2	103.0
Lead	0	47	1	42.3	90.0	-1	38.1	81.1
Manganese	45	484	42	478.1	98.8	40	438.2	90.5
Mercury								
Zinc	0	1008	2	848.2	84.1	2	814.1	80.8

ANALYSIS REPORT

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

ICP ID Number: P0 ICS Source: EPA-LV

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	495800	505595				474848	473343.2	93.6
Arsenic	0	97				4	93.1	96.0
Cadmium	0	871				1	774.4	88.9
Iron	186000	177250				181463	180594.4	101.9
Lead	0	47				-1	48.1	102.3
Manganese	45	484				40	433.9	89.6
Mercury								
Zinc	0	1008				3	808.0	80.2

E.

SPIKED SAMPLE RESULTS SUMMARY

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

10GW

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10372

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2080.3800		184.4000	B	2000.00	94.8		P
Arsenic	75-125	2088.6600		4.0000	U	2000.00	104.4		P
Cadmium	75-125	48.0600		1.0000	U	50.00	96.1		P
Iron	75-125	1311.2000		238.4000		1000.00	107.3		P
Lead	75-125	473.7000		1.8700	B	500.00	94.4		P
Manganese	75-125	503.3200		26.4400		500.00	95.4		P
Mercury									NR
Zinc	75-125	539.2500		47.6200		500.00	98.3		P
Cyanide									NR

Comments:

000159

5A

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE #

E-198.S12S1-320S

Lab Name: CHEMTECH CONSULTING GROUP

Lab Code: CHEM Case No.: E-198 SAS No.: SDG No.: 51251

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75-125	1.0420		0.2000	U	1.00	104.2		CV

Comments:

FORM V (Part 1) - IN ILM03.0

ANALYSIS REPORT

5A

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE #

DO-0018-06-007S

Lab Name: CHEMTECH CONSULTING GROUP

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Arsenic									NR
Cadmium									NR
Iron									NR
Lead									NR
Manganese									NR
Mercury									NR
Zinc									NR
Cyanide	75-125	101.6000		4.0000	U	100.00	101.6		CA

Comments:

F.

DUPLICATE SAMPLE RESULTS SUMMARY

U.S. EPA - CLP

6

DUPLICATES

EPA SAMPLE NO.

10GW

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10372

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		184.4000	B	182.1500	B	1.2		P
Arsenic		4.0000	U	4.0000	U			P
Cadmium		1.0000	U	1.0000	U			P
Iron	100.0	238.4000		232.0900		2.7		P
Lead		1.8700	B	1.5900	B	16.2		P
Manganese	15.0	26.4400		26.4100		0.1		P
Mercury								NR
Zinc	20.0	47.6200		47.8000		0.4		P
Cyanide								NR

DUPLICATES

CLIENT SAMPLE #

E-198.S12S1-310D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: E-198 SAS No.: SDG No.: 51251

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.2000	U	0.2000	U			CV

ANALYSIS REPORT

6

DUPLICATES

CLIENT SAMPLE #

DO-0018-06-007D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Arsenic								NR
Cadmium								NR
Iron								NR
Lead								NR
Manganese								NR
Mercury								NR
Zinc								NR
Cyanide		4.0000	U	4.0000	U			CA

G.

LABORATORY CONTROL SAMPLE RESULTS SUMMARY

ANALYSIS REPORT

7
LABORATORY CONTROL SAMPLE

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10451

Solid LCS Source:

Aqueous LCS Source: EPA-LV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	978.0	943.03	96.4						
Arsenic	50.9	48.31	94.9						
Cadmium	304.8	292.92	96.1						
Iron	992.5	975.80	98.3						
Lead	2518.4	2510.06	99.7						
Manganese	245.5	241.20	98.2						
Mercury									
Zinc	1506.0	1476.24	98.0						
Cyanide									

H.

SERIAL DILUTION RESULTS SUMMARY

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

10GW

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10372

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	184.40	B	209.10	B	13.4		P
Arsenic	4.00	U	20.00	U			P
Cadmium	1.00	U	5.00	U			P
Iron	238.40		195.60	B	18.0		P
Lead	1.87	B	5.00	U	100.0		P
Manganese	26.44		26.85	B	1.6		P
Mercury							NR
Zinc	47.62		53.40	B	12.1		P

GENERAL CHEMISTRY DATA

TEST RESULTS

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64899
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-001
TIME SAMPLED- 1437 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
pH	EPA 150.1	01/20/99		HSP	6.50	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	4.00	mg/L

LABORATORY DIRECTOR _____

000172

110 Route 4
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NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

POSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64900
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-002
TIME SAMPLED- 1430 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	6.95	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000173

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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

CLIENT # 10451 NJ

SAMPLE NUMBER- 64901
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-007
TIME SAMPLED- 1405 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.15	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000174

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64902
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-FIELDBLANK
TIME SAMPLED- 1350 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.90	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000175

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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64903
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID DO-0018-06-003
TIME SAMPLED- 1426 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	3.00	mg/L

LABORATORY DIRECTOR _____

000176

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451 NJ

SAMPLE NUMBER- 64904
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-004
TIME SAMPLED- 1421 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	01/20/99		BP	<0.0250	mg/L
pH	EPA 150.1	01/20/99		HSP	7.15	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	01/21/99		HSP	6.00	mg/L

LABORATORY DIRECTOR _____

000177

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
ATTN: DAVE D. CESURE

DATE: 01/27/99

PROJECT # 10451NJ

SAMPLE NUMBER- 64906
DATE SAMPLED- 01/19/99
DATE RECEIVED- 01/20/99
DELIVERED BY- FEDEX

SAMPLE ID- DO-0018-06-006
TIME SAMPLED- 1411 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL ORGANIC CARBON	SW 9060	01/27/99		SPS	<10.0	mg/L

LABORATORY DIRECTOR _____

000178

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NJDEP Certification No. 15004

QC RESULTS

CHEMTECH

LABORATORY REPORT

[illegible] REPORT FOR FOSTER WHEELER ENVIRONMENTAL 01/27/99

[illegible] SAMPLE Nos: 64900, 64901, 64902,

		Precision Data				Accuracy Data	Reference Sample Data			
	LAB ID	Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
[illegible] HEXAVALENT	64900	<0.0250	<0.0250	0.013	0.00	99.60	ICV	0.50	0.4916	98.32
[illegible]	-------	-------	-------	-------	-------	------	ICB	<0.0250	<0.0250	100.00
[illegible]	-------	-------	-------	-------	-------	------	CCV1	0.50	0.5033	100.66
	-------	-------	-------	-------	-------	------	CCB1	<0.0250	<0.0250	100.00
	-------	-------	-------	-------	-------	------	MID STD.	0.50	0.5004	100.08
	-------	-------	-------	-------	-------	------	PBW	<0.0250	<0.0250	100.00
	-------	-------	-------	-------	-------	------	CCV2	0.50	0.5039	100.78
	-------	-------	-------	-------	-------	------	CCB2	<0.0250	<0.0250	100.00
[illegible]	64900	6.95	7.00	0.050	0.72	------	STDPH4.00	4.00	4.00	100.00
[illegible]	-------	-------	-------	-------	-------	------	STDPH7.00	7.00	7.05	100.71
[illegible]	-------	-------	-------	-------	-------	------	STDPH10.00	10.00	10.00	100.00
	-------	-------	-------	-------	-------	------	STDPH7.00	7.00	7.05	100.71
[illegible] ORGANIC CARBON	64906	<10.0	<10.0	5.0	0.00	109.46	QC	200	199.2	99.60
[illegible]	-------	-------	-------	-------	-------	------	CCV1	200	209.2	104.60
[illegible]	-------	-------	-------	-------	-------	------	CCB1	<10.0	<10.0	100.00
	-------	-------	-------	-------	-------	------	M.BLANK	<10.0	<10.0	100.00
	-------	-------	-------	-------	-------	------	CCV2	200	197.5	98.75
	-------	-------	-------	-------	-------	------	CCB2	<10.0	<10.0	100.00
[illegible] SUSPENDED	64904	6.00	7.00	1.0	15.38	104.00	BLANK1	<1.0	<1.0	100.00
[illegible]	64964	10.0	11.0	1.0	9.52	105.00	STD	125	122	97.60
[illegible]	-------	-------	-------	-------	-------	------	BLANK2	<1.0	<1.0	100.00

[illegible]

000180

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