N62269.AR.000547
NAWC WARMINSTER
5090.3a

FOSTER WHEELER ENVIRONMENTAL CORPORATION

January 14, 1999
File #: 1284-0018-99-0015

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
December, 1998 GROUNDWATER PUMP & TREAT SYSTEM
MONTHLY REPORT

Dear Mr. Lehman:

This letter report provides the results of the December, 1998 sampling and the activities performed during the reporting period from December 1, 1998 through December 31, 1998. The groundwater treatment plant operated 99 % of the reporting period.

As of December 31, 1998 (2400 hours) a total of 456,764 gallons of groundwater had been treated during the period from December 1, 1998 through December 31, 1998. This brings the total amount of water treated to 32,804,571 gallons (December 31, 1998). During December, 1998 the average effluent flowrate was 10.3 gpm.

The process water was sampled on December 17, 1998. The results of this sampling are presented in the attached table. This data shows that no discharge limits were exceeded during the December, 1998 reporting period. It should also be noted that for the first time during the operation of the Area "C" extraction and transfer system Trichloroethene was detected in the Area "C" influent sample. This change in influent results 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 no system shutdowns.

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

12/01/98- Repaired Area "C" sump pump P39 and replaced pump P40. The system was down from approximately 0830 hours to 1550 hours. The original pump P40 will be sent for an estimate to repair. Emerald Electric performed all electrical tasks.

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

12/03/98- Thoroughly cleaned the check valves for the building sump transfer pumps. Check valves were then connected to the new pumps.

12/07/98- Found check valve V-69 above pump P20 stuck in the open position (equalization pumps were off and FIT#1 was showing 35 gpm flow rate – back flow). V-69 was isolated and the flapper removed and cleaned. The valve housing was also cleaned. No back flow occurred after being reassembled.

12/10/98- New building sump transfer pumps installed by Emerald Electric. A new pull box was installed above grade to prevent wire connections from getting wet.

12/22/98- Removed Area "A" flow meter (FIT-A) and installed a temporary connection. The pulse sensor for FIT-A was removed and installed in FIT-1 on 11/05/98. Two new sensors were ordered but were the incorrect part. The correct part is no longer manufactured and the new ones do not work in the existing meter. The manufacturer realizes this problem and has offered to make replacements at less than half the new cost. The old meter was returned to manufacturer and we are awaiting the delivery of the new meter.

The Tetrachloroethene and Trichloroethene concentrations in the groundwater influent to the system were 21 ug/l and 3.1 ug/l (Area C influent) respectively, with a total of 0.080 pounds of Tetrachloroethene and 0.012 pounds of Trichloroethene removed during the December, 1998 reporting period. The total amount of Tetrachloroethene and Trichloroethene removed through December, 1998 is 3.192 and 0.012 pounds respectively.

Calculation:
Average PCE concentration = 21 ug/l
Average water flowrate for month of December, 1998 = 10.3 gpm
Pounds of PCE removed = (10.3 gpm)(44200 min)(21 ug/l)(3.785 l/gal) (1 g / 1,000,000 ug)(1 lb. / 454 g) = 0.080 lbs. PCE

Calculation:
Average TCE concentration = 3.1 ug/l
Average water flowrate for month of December, 1998 = 10.3 gpm
Pounds of TCE removed = (10.3gpm)(44200 min)(3.1 ug/l)(3.785 l/gal) (1 g / 1,000,000 ug)(1 lb. / 454 g) = 0.012 lbs. TCE

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

If you should have any questions or comments regarding the December, 1998 reporting period, please feel free to contact either me at 215-702-4020 or Dave DiCesare at 215-702-4074.

Sincerely,

John F. Magee, 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 Wheeler Environmental Corporation
NAWC, Warminster - Groundwater Pump and Treat Plant
December, 1998 - 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	17-Dec-98	17-Dec-98	17-Dec-98	17-Dec-98	17-Dec-98	17-Dec-98	17-Dec-98	Instantaneous Maximum
Total Discharge (gal.) thru 12/31/98									456,764
Average Discharge Flowrate (gpm) for December, 1998									10.3
pH	EPA 150.1	1	7.25	N/A	7.05	N/A	N/A	7.15	6.0-9.0
Total Suspended Solids (mg/l)	EPA 160.2	7	17	5	2	N/A	N/A	9	75 mg/l
Total Organic Carbon (mg/l)	415.1/EPA600	N/A	<10	N/A	N/A	N/A	12.2	<10	-
Carbon Tetrachloride	EPA 8260A	BDL	BDL	N/A	N/A	BDL	BDL	BDL	4.2 ug/l
Tetrachloroethene	EPA 8260A	21	6.2	N/A	N/A	BDL	BDL	BDL	10.0 ug/l
Trichloroethene	EPA 8260A	3.1	11	N/A	N/A	BDL	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
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	BDL	11.0 ug/l
Zinc	SW846	N/A	42.9	N/A	41.1	N/A	N/A	43.2	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	7.3	1875 ug/l
Total Iron	SW846	N/A	27	N/A	27	N/A	N/A	27	3600 ug/l
Total Manganese	SW846	N/A	BDL	N/A	1	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 January, 1999

Monday, January 4, 1999
Thursday, January 7, 1999
Monday, January 11, 1999
Thursday, January 14, 1999
Monday, January 18, 1999
Thursday, January 21, 1999
Monday, January 25, 1999
Thursday, January 28, 1999

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

DATA PACKAGE FOR VOLATILE ORGANICS, SEMIVOLATILE ORGANICS, METALS, AND GENERAL CHEMISTRY

NWAC WARMINSTER
1284.B018.0209

FOSTER WHEELER
2300 LINCOLN HIGHWAY EAST
ONE OXFORD VALLEY SUITE 200
LANGHORNE, PA 19047

CHEMTECH PROJECT 10152NJ

ATTENTION DAVE DICESHRE

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Lab Name: Chemtech Consulting Group Client: FOSTER WHEELER ENVIRO CORP.
Lab Code: CHEM Project No.: 10152NJ

Client Sample No.	Lab Sample ID
D0-0018-06-002	62929
D0-0018-06-007	62930
D0-0018-06-FIELD BLANK	62931
D0-0018-06-001	62932
D0-0018-06-003	62933
D0-0018-06-004	62934
D0-0018-06-005	62935
D0-0018-06-006	62936

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 MRHTA

Date : 1/9/99 Title: LAB DIRECTOR

CHEMTECH CONSULTING GROUP

CHAIN OF CUSTODY RECORD

000003

CHAIN OF CUSTODY RECORD

(201) 567-6868 Fax (201) 567-1333 (609) 698-0199 Fax (609) 998-0910

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

ANALYSIS

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

PRESERVATIVES

A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other ← Specify Preservatives

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	C	D	4	B	A	6	8	COMMENTS
1.	DO-0018-06-001	H_2O			12/17/98	1332	4	1	1					2			
2.	DO-0018-06-002	↓			↓	1325	8	1	1	1	1	1	1	2	1		
3.	DO-0018-06-003					1322	1		1								
4.	DO-0018-06-004					1318	5	1	1		1	1	1		1		
5.	DO-0018-06-005					1315	2							2			
6.	DO-0018-06-006					1312	3			1				2			
7.	DO-0018-06-007					1305	8	1	1	1	1	1	1	2	1		
8.	DO-0018-06-Field Blank	↓			↓	1253	8	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]	12/17/98 1400	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 12/18/98	RECEIVED FOR LAB BY: 3. [signature]

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

Comments: 7-days

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- ☐ DISKETTES
- ☐ NYS ASP

ANALYSIS

1 pH, 2 TSS, 3 TOC, 4 Cn, 5 Cr+6, 6 Metals-Total Fe, Mn, Cu, Co, Pb, Zn, Ag, Al, T.Mn, 7 TCL-VOA, 8 Dissolved Fe, 9 Filter + Preserve on Arrival

PRESERVATIVES

A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other ← Specify Preservatives

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	/	/	C	D	/	B	A	/		COMMENTS
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4.	DO-0018-06-004					1318	5	1	1		1	1	1		1		
5.	DO-0018-06-005					1315	2							2			
6.	DO-0018-06-006					1312	3			1				2			
7.	DO-0018-06-007					1305	8	1	1	1	1	1	1	2	1		
8.	DO-0018-06-Field Blank					1253	8	1	1	1	1	1	1	2	1		

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Ver. 10-98

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METHODOLOGY REVIEW

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METHODOLOGY SUMMARY
PROJECT # 10152NJ

VOLATILE ORGANICS

The analysis of Volatile Organics is by Method 8260

SEMIVOLATILE ORGANICS

The analysis of Semivolatile Organics is by Method 8270

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.

GENERAL CHEMISTRY

The general chemistry parameters are analyzed as per the following:

Chromium Hexavalent	7196-A
pH	EPA 150.1
Total Organic Carbon	9060
Total Suspended Solids	EPA 160.2

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LABORATORY CHRONICLE

000007

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LABORATORY CHRONICLE
PROJECT # 10152NJ

ANALYSIS	COLLECTED	DIGESTED/ EXTRACTED	ANALYZED	ANALYST
Volatile Organics	12/17/98	NA	12/25/98 12/26/98	PM
Metals	12/17/98	12/21/98	12/22/98 12/23/98	NP
General Chemistry	12/17/98	NA	12/18/98 to 12/22/98	HSP

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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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GC/MS CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No. 10152 NJ

	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:		✓
11. Analysis Holding time Met If not met, list number of days exceeded for each sample:		✓

Laboratory Supervisor: [signature] Date: 1/4/95

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

CHEMTECH CONSULTING GROUP, INC.

METALS ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No. 10152 NS

	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: [signature] Date: 1/4/95

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

CHEMTECH
CONSULTING GROUP, INC.

GENERAL CHEMISTRY
CONFORMANCE/NONCONFORMANCE SUMMARY

WORK ORDER No._____

	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: _____ Date: 1/4/95

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

CHEMTECH CONSULTING GROUP

RESULTS SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	11	
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

000016

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	6.2	
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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000018

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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
1.				
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ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-002

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62929S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	2.4	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	42.9			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000020

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-002D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62929DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000021

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62929
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-002
TIME SAMPLED- 1332 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.25	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	17.0	mg/L

LABORATORY DIRECTOR _____

000022

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. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000024

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000025

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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
1.				
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000026

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-007

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62930S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.2	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	43.2			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-007D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62930DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000028

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62930
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-007
TIME SAMPLED- 1305 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.15	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	9.00	mg/L

LABORATORY DIRECTOR _____

000029

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. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	5.6	
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	12	
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

000030

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000031

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000032

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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
1.				
2.				
3.				
4.				
5.				
6.				
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000033

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62931S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	39.3			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-FIELD BLANKD

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62931DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62931
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-FIELD BLANK
TIME SAMPLED- 1253 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.55	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	24.8	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	9.00	mg/L

LABORATORY DIRECTOR _____

000036

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	3.1	
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

000037

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	21	
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

000038

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000039

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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
1.				
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000040

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62932
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-001
TIME SAMPLED- 1332 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
pH	EPA 150.1	12/18/98		HSP	7.00	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	7.00	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. 15004

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62933
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-003
TIME SAMPLED- 1322 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	5.00	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

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-004

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62934S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	41.1			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000043

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-004D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62934DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000044

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62934
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-004
TIME SAMPLED- 1318 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.05	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	2.00	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. 15004

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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	3.1	J
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

000046

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000047

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000048

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000051

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000052

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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 ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62936
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-006
TIME SAMPLED- 1312 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	12.2	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

I.

VOLATILE ORGANICS DATA

A.

ANALYTICAL RESULTS SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	11	
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

000057

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	6.2	
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

000058

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000059

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-002

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62929

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16872.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000061

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000062

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000063

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-007

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62930

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16873.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	5.6	
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	12	
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

000065

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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.
DO-0018-06-FIEL

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62931

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16868.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	3.1	
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

000069

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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	21	
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

000070

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000071

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-001

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62932

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16874.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ 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: P16866.D

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

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ 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: P16866.D

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

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000088

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ 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: P16866.D

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

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000089

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015

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: P16866.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 100

Date Analyzed: 12/25/98

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
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4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH Contract: FOSTER

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06

Lab File ID: P16882.D Lab Sample ID: VBLK02

Date Analyzed: 12/26/98 Time Analyzed: 1305

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

Instrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	D0-0018-06-005	O62935	P16885.D	1532
02				
03				
04				
05				
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COMMENTS:

000091

FORM IV VOA

3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16882.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000092

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16882.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000093

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16882.D

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

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000094

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015

Site: _____

Location: _____

Group: D0-0018-0

Matrix: (soil/water) WATER

Lab Sample ID: VBLK02

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

Lab File ID: P16882.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 100

Date Analyzed: 12/26/98

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
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VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH Contract: FOSTER

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06

Lab File ID: P16866.D Lab Sample ID: VBLK01

Date Analyzed: 12/25/98 Time Analyzed: 1437

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

Instrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	DO-0018-06-FIEL	O62931	P16868.D	1606
02	DO-0018-06-002	O62929	P16872.D	1900
03	DO-0018-06-007	O62930	P16873.D	1943
04	DO-0018-06-001	O62932	P16874.D	2026
05	DO-0018-06-006	O62936	P16876.D	2153
06	DO-0018-06-006MS	O62936MS	P16877.D	2236
07	DO-0018-06-006MSD	O62936SD	P16878.D	2320
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COMMENTS:

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CALIBRATION SUMMARY

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-06

Instrument ID: VOA 2 Calibration Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Calibration Times: 1115 1420

GC Column RTX624 ID: 0.53 (mm)

Lab File ID: RRF005 = P16833.D RRF20 = P16832.D
RRF50 = P16831.D RRF100 = P16834.D RRF200 = P16835.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane	0.206	0.226	0.243	0.255	0.215	0.229	8.7	
Chloromethane *	0.084	0.110	0.116	0.131	0.117	0.112	15.3	*
Vinyl Chloride	0.081	0.102	0.103	0.114	0.098	0.099	12.1	
Bromomethane	0.077	0.092	0.073	0.079	0.063	0.077	13.5	
Chloroethane	0.090	0.090	0.099	0.102	0.092	0.095	6.0	
Acrolein	0.036	0.037	0.030	0.036	0.029	0.034	11.0	
Trichlorofluoromethane	0.438	0.408	0.414	0.414	0.358	0.406	7.2	
1,1-Dichloroethene	0.395	0.445	0.409	0.427	0.318	0.399	12.3	
Acetone	0.284	0.208	0.158	0.171	0.165	0.197	26.5	
Carbon Disulfide	0.948	1.092	1.088	1.115	0.873	1.023	10.4	
Methylene Chloride	0.280	0.275	0.246	0.278	0.268	0.269	5.2	
trans-1,2-Dichloroethene	0.418	0.456	0.420	0.455	0.463	0.442	4.9	
Acrylonitrile	0.107	0.103	0.086	0.101	0.105	0.100	8.5	
1,1-Dichloroethane *	0.556	0.597	0.544	0.598	0.606	0.580	4.9	*
2,2-Dichloropropane	0.539	0.572	0.544	0.584	0.585	0.565	3.9	
cis-1,2-dichloroethene	0.481	0.523	0.475	0.496	0.516	0.498	4.2	
Bromochloromethane	0.360	0.351	0.309	0.338	0.348	0.341	5.8	
Chloroform	0.681	0.674	0.621	0.632	0.667	0.655	4.1	
1,1,1-Trichloroethane	0.574	0.610	0.589	0.598	0.617	0.597	2.8	
Vinyl Acetate	0.207	0.216	0.191	0.232	0.251	0.219	10.5	
2-Butanone	0.427	0.324	0.295	0.313	0.347	0.341	15.1	
Carbon Tetrachloride	0.289	0.345	0.303	0.369	0.430	0.347	16.2	
1,1-Dichloropropene	0.459	0.463	0.450	0.433	0.454	0.452	2.5	
Benzene	0.919	0.879	0.834	0.833	0.860	0.865	4.2	
1,2-Dichloroethane	0.547	0.513	0.440	0.474	0.493	0.493	8.2	
Trichloroethene	0.478	0.460	0.458	0.422	0.436	0.451	4.8	
1,2-Dichloropropane	0.352	0.331	0.315	0.313	0.316	0.325	5.0	
Dibromomethane	0.442	0.414	0.405	0.391	0.410	0.412	4.5	
Bromodichloromethane	0.507	0.548	0.538	0.569	0.597	0.552	6.1	
2-Chloroethyl Vinyl Ether	0.385	0.349	0.336	0.345	0.353	0.354	5.3	
cis-1,3-Dichloropropene	0.571	0.553	0.537	0.539	0.531	0.546	3.0	
Toluene	1.287	1.113	1.126	1.046	1.005	1.115	9.7	
trans-1,3-Dichloropropene	0.575	0.534	0.528	0.543	0.523	0.540	3.8	
1,1,2-Trichloroethane	0.463	0.396	0.369	0.373	0.350	0.390	11.3	
4-Methyl-2-Pentanone	1.315	1.055	1.034	0.973	1.101	1.096	12.0	
Tetrachloroethene	0.814	0.726	0.758	0.631	0.688	0.723	9.6	

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

000097

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06

Instrument ID: VOA 2 Calibration Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Calibration Times: 1115 1420

GC Column RTX624 ID: 0.53 (mm)

Lab File ID: RRF005 = P16833.D RRF20 = P16832.D
RRF50 = P16831.D RRF100 = P16834.D RRF200 = P16835.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
1,3-Dichloropropane	0.821	0.759	0.692	0.660	0.722	0.731	8.5	
Dibromochloromethane	0.607	0.665	0.669	0.664	0.743	0.670	7.3	
1,2-Dibromoethane	0.737	0.716	0.647	0.638	0.689	0.685	6.2	
2-Hexanone	0.934	0.742	0.712	0.679	0.760	0.765	12.9	
Chlorobenzene *	1.233	1.116	1.043	0.979	1.003	1.075	9.6	*
1,1,1,2-Tetrachloroethane	0.504	0.543	0.519	0.506	0.527	0.520	3.0	
Ethylbenzene	1.886	1.729	1.672	1.575	1.569	1.686	7.7	
m&p-xylenes	0.718	0.681	0.658	0.617	0.623	0.659	6.3	
o-xylene	1.418	1.409	1.301	1.306	1.284	1.343	4.8	
Styrene	0.928	1.027	0.981	1.020	1.017	0.995	4.1	
Bromoform *	0.548	0.685	0.663	0.717	0.729	0.668	10.8	*
isopropylbenzene	3.345	3.129	3.122	2.626	2.759	2.996	9.9	
Bromobenzene	1.860	1.695	1.619	1.484	1.535	1.638	9.0	
1,1,2,2-Tetrachloroethane *	1.633	1.411	1.359	1.265	1.321	1.398	10.2	*
1,2,3-Trichloropropane	1.400	1.123	1.047	0.977	1.021	1.114	15.1	
n-Propylbenzene	1.380	1.298	1.326	1.176	1.193	1.274	6.9	
2-Chlorotoluene	0.881	0.789	0.781	0.696	0.728	0.775	9.1	
4-Chlorotoluene	0.915	0.829	0.804	0.732	0.752	0.806	8.9	
1,3,5-Trimethylbenzene	2.747	2.542	2.563	2.309	2.371	2.506	6.9	
tert-Butylbenzene	2.683	2.513	2.554	2.281	2.349	2.476	6.5	
1,2,4-Trimethylbenzene	2.677	2.559	2.500	2.318	2.408	2.492	5.5	
sec-Butylbenzene	3.606	3.381	3.437	3.093	3.244	3.352	5.8	
1,3-Dichlorobenzene	1.992	1.818	1.732	1.644	1.682	1.774	7.8	
4-Isopropyltoluene	3.357	3.197	3.154	2.933	2.986	3.125	5.4	
1,4-Dichlorobenzene	2.169	1.928	1.765	1.720	1.756	1.867	10.0	
1,2-Dichlorobenzene	1.931	1.809	1.615	1.571	1.625	1.710	9.0	
n-Butylbenzene	2.826	2.753	2.738	2.575	2.678	2.714	3.5	
1,2-Dibromo-3-chloropropane	0.439	0.418	0.392	0.413	0.475	0.427	7.4	
1,2,4-Trichlorobenzene	1.763	1.823	1.595	1.596	1.792	1.714	6.4	
Hexachlorobutadiene	1.226	1.334	1.308	1.187	1.360	1.283	5.7	
Naphthalene	3.468	3.505	2.800	2.992	3.526	3.258	10.4	
1,2,3-Trichlorobenzene	1.722	1.756	1.481	1.462	1.684	1.621	8.6	

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

000098

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	0.484	0.436	0.398	0.396	0.436	0.430	8.3
1,2-Dichlorethane-d4	0.500	0.414	0.368	0.392	0.404	0.416	12.1
Toluene-d8	1.149	0.928	0.921	0.817	0.816	0.926	14.7
4-Bromofluorobenzene	0.808	0.673	0.601	0.641	0.552	0.655	14.8

* 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 ENVIRO CORP.

Project No. 10152NJ Site: _____ Location: _____ Group: D0-0018-06-

Instrument ID: VOA 2 Calibration Date: 12/25/98 Time: 1344

Lab File ID: P16865.D Init. Calib. Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Init. Calib. Times: 1115 1420

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.229	0.217		5.2	
Chloromethane	0.112	0.085	0.100	24.1	
Vinyl Chloride	0.099	0.089		10.1	20.0
Bromomethane	0.077	0.102		-32.5	
Chloroethane	0.095	0.089		6.3	
Acrolein	0.034	0.029		14.7	
Trichlorofluoromethane	0.406	0.415		-2.2	
1,1-Dichloroethene	0.399	0.403		-1.0	20.0
Acetone	0.197	0.157		20.3	
Carbon Disulfide	1.023	1.031		-0.8	
Methylene Chloride	0.269	0.249		7.4	
trans-1,2-Dichloroethene	0.442	0.410		7.2	
Acrylonitrile	0.100	0.083		17.0	
1,1-Dichloroethane	0.580	0.546	0.100	5.9	
2,2-Dichloropropane	0.565	0.553		2.1	
cis-1,2-dichloroethene	0.498	0.481		3.4	
Bromochloromethane	0.341	0.330		3.2	
Chloroform	0.655	0.637		2.7	20.0
1,1,1-Trichloroethane	0.597	0.594		0.5	
Vinyl Acetate	0.219	0.194		11.4	
2-Butanone	0.341	0.265		22.3	
Carbon Tetrachloride	0.347	0.332		4.3	
1,1-Dichloropropene	0.452	0.438		3.1	
Benzene	0.865	0.831		3.9	
1,2-Dichloroethane	0.493	0.478		3.0	
Trichloroethene	0.451	0.437		3.1	
1,2-Dichloropropane	0.325	0.310		4.6	20.0
Dibromomethane	0.412	0.388		5.8	
Bromodichloromethane	0.552	0.593		-7.4	
2-Chloroethyl Vinyl Ether	0.354	0.329		7.1	
cis-1,3-Dichloropropene	0.546	0.538		1.5	
Toluene	1.115	1.076		3.5	20.0
trans-1,3-Dichloropropene	0.540	0.494		8.5	
1,1,2-Trichloroethane	0.390	0.346		11.3	
4-Methyl-2-Pentanone	1.096	0.925		15.6	
Tetrachloroethene	0.723	0.659		8.9	

All other compounds must meet a minimum RRF of 0.010.

000100

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 10152NJ Site: _____ Location: _____ Group: D0-0018-06-

Instrument ID: VOA 2 Calibration Date: 12/25/98 Time: 1344

Lab File ID: P16865.D Init. Calib. Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Init. Calib. Times: 1115 1420

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3-Dichloropropane	0.731	0.697		4.7	
Dibromochloromethane	0.670	0.653	0.300	2.5	
1,2-Dibromoethane	0.685	0.651		5.0	
2-Hexanone	0.765	0.582		23.9	
Chlorobenzene	1.075	1.033		3.9	
1,1,1,2-Tetrachloroethane	0.520	0.508		2.3	
Ethylbenzene	1.686	1.634		3.1	20.0
m&p-xylenes	0.659	0.631	0.100	4.2	
o-xylene	1.343	1.336		0.5	
Styrene	0.995	0.974		2.1	
Bromoform	0.668	0.643	0.300	3.7	
isopropylbenzene	2.996	2.857		4.6	
Bromobenzene	1.638	1.608		1.8	
1,1,2,2-Tetrachloroethane	1.398	1.300		7.0	
1,2,3-Trichloropropane	1.114	1.027		7.8	
n-Propylbenzene	1.274	1.262		0.9	
2-Chlorotoluene	0.775	0.750		3.2	
4-Chlorotoluene	0.806	0.784		2.7	
1,3,5-Trimethylbenzene	2.506	2.438		2.7	
tert-Butylbenzene	2.476	2.417		2.4	
1,2,4-Trimethylbenzene	2.492	2.433		2.4	
sec-Butylbenzene	3.352	3.221		3.9	
1,3-Dichlorobenzene	1.774	1.727		2.6	
4-Isopropyltoluene	3.125	2.991		4.3	
1,4-Dichlorobenzene	1.867	1.794		3.9	
1,2-Dichlorobenzene	1.710	1.646		3.7	
n-Butylbenzene	2.714	2.630		3.1	
1,2-Dibromo-3-chloropropane	0.427	0.363		15.0	
1,2,4-Trichlorobenzene	1.714	1.505		12.2	
Hexachlorobutadiene	1.283	1.136		11.5	
Naphthalene	3.258	2.281		30.0	
1,2,3-Trichlorobenzene	1.621	1.401		13.6	

All other compounds must meet a minimum RRF of 0.010.

000101

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	$\overline{\text{RRF}}$	RRF50	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.430	0.408		5.1	
1,2-Dichlorethane-d4	0.416	0.376		9.6	
Toluene-d8	0.926	0.855		7.7	
4-Bromofluorobenzene	0.655	0.588		10.2	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 10152NJ Site: Location: Group: D0-0018-06-

Instrument ID: VOA 2 Calibration Date: 12/26/98 Time: 1112

Lab File ID: P16880.D Init. Calib. Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Init. Calib. Times: 1115 1420

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.229	0.186		18.8	
Chloromethane	0.112	0.116	0.100	-3.6	
Vinyl Chloride	0.099	0.088		11.1	20.0
Bromomethane	0.077	0.106		-37.7	
Chloroethane	0.095	0.096		-1.1	
Acrolein	0.034	0.032		5.9	
Trichlorofluoromethane	0.406	0.442		-8.9	
1,1-Dichloroethene	0.399	0.419		-5.0	20.0
Acetone	0.197	0.206		-4.6	
Carbon Disulfide	1.023	1.155		-12.9	
Methylene Chloride	0.269	0.278		-3.3	
trans-1,2-Dichloroethene	0.442	0.452		-2.3	
Acrylonitrile	0.100	0.099		1.0	
1,1-Dichloroethane	0.580	0.609	0.100	-5.0	
2,2-Dichloropropane	0.565	0.598		-5.8	
cis-1,2-dichloroethene	0.498	0.539		-8.2	
Bromochloromethane	0.341	0.371		-8.8	
Chloroform	0.655	0.718		-9.6	20.0
1,1,1-Trichloroethane	0.597	0.669		-12.1	
Vinyl Acetate	0.219	0.225		-2.7	
2-Butanone	0.341	0.313		8.2	
Carbon Tetrachloride	0.347	0.571		-64.6	
1,1-Dichloropropene	0.452	0.480		-6.2	
Benzene	0.865	0.852		1.5	
1,2-Dichloroethane	0.493	0.489		0.8	
Trichloroethene	0.451	0.440		2.4	
1,2-Dichloropropane	0.325	0.318		2.2	20.0
Dibromomethane	0.412	0.404		1.9	
Bromodichloromethane	0.552	0.663		-20.1	
2-Chloroethyl Vinyl Ether	0.354	0.345		2.5	
cis-1,3-Dichloropropene	0.546	0.559		-2.4	
Toluene	1.115	1.110		0.4	20.0
trans-1,3-Dichloropropene	0.540	0.549		-1.7	
1,1,2-Trichloroethane	0.390	0.390		0.0	
4-Methyl-2-Pentanone	1.096	0.924		15.7	
Tetrachloroethene	0.723	0.671		7.2	

All other compounds must meet a minimum RRF of 0.010.

000103

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 10152NJ Site: Location: Group: D0-0018-06-

Instrument ID: VOA 2 Calibration Date: 12/26/98 Time: 1112

Lab File ID: P16880.D Init. Calib. Date(s): 12/23/98 12/23/98

Heated Purge: (Y/N) N Init. Calib. Times: 1115 1420

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3-Dichloropropane	0.731	0.713		2.5	
Dibromochloromethane	0.670	0.711	0.300	-6.1	
1,2-Dibromoethane	0.685	0.663		3.2	
2-Hexanone	0.765	0.635		17.0	
Chlorobenzene	1.075	1.032		4.0	
1,1,1,2-Tetrachloroethane	0.520	0.518		0.4	
Ethylbenzene	1.686	1.654		1.9	20.0
m&p-xylenes	0.659	0.636	0.100	3.5	
o-xylene	1.343	1.342		0.1	
Styrene	0.995	0.982		1.3	
Bromoform	0.668	0.706	0.300	-5.7	
isopropylbenzene	2.996	2.850		4.9	
Bromobenzene	1.638	1.617		1.3	
1,1,2,2-Tetrachloroethane	1.398	1.338		4.3	
1,2,3-Trichloropropane	1.114	1.043		6.4	
n-Propylbenzene	1.274	1.255		1.5	
2-Chlorotoluene	0.775	0.746		3.7	
4-Chlorotoluene	0.806	0.787		2.4	
1,3,5-Trimethylbenzene	2.506	2.376		5.2	
tert-Butylbenzene	2.476	2.438		1.5	
1,2,4-Trimethylbenzene	2.492	2.384		4.3	
sec-Butylbenzene	3.352	3.204		4.4	
1,3-Dichlorobenzene	1.774	1.711		3.6	
4-Isopropyltoluene	3.125	3.012		3.6	
1,4-Dichlorobenzene	1.867	1.790		4.1	
1,2-Dichlorobenzene	1.710	1.636		4.3	
n-Butylbenzene	2.714	2.503		7.8	
1,2-Dibromo-3-chloropropane	0.427	0.373		12.6	
1,2,4-Trichlorobenzene	1.714	1.300		24.2	
Hexachlorobutadiene	1.283	1.036		19.3	
Naphthalene	3.258	2.047		37.2	
1,2,3-Trichlorobenzene	1.621	1.186		26.8	

All other compounds must meet a minimum RRF of 0.010.

000104

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	0.430	0.497		-15.6	
1,2-Dichlorethane-d4	0.416	0.389		6.5	
Toluene-d8	0.926	0.879		5.1	
4-Bromofluorobenzene	0.655	0.659		-0.6	

All other compounds must meet a minimum RRF of 0.010.

E.

SURROGATE COMPOUND RECOVERY RESULTS SUMMARY

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06-002

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	90	89	91	90	
02	DO-0018-06-FIEL	97	97	94	93	
03	DO-0018-06-002	91	93	90	94	
04	DO-0018-06-007	97	97	92	89	
05	DO-0018-06-001	92	96	91	89	
06	DO-0018-06-006	96	101	94	97	
07	DO-0018-06-006MS	95	96	92	94	
08	DO-0018-06-006MSD	98	98	95	96	
09	VBLK02	99	89	90	87	
10	D0-0018-06-005	93	90	89	91	
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	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

000107

F.

MS/ MSD RESULTS SUMMARY

Lab Name: CHEMTECH Contra

Project No.: 10152NJ Site: _____ Locatio

Matrix: (soil/water) WATER

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

Level: (low/med) _____

% Moisture: not dec. 100

GC Column: RTX624 ID: 0.53 (mm)

Soil Extract Volume: _____ (uL)

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH
Contract: FOSTER WHEELER ENVIRO CORP.
Project No.: 10152NJ
Site:
Location:
Group: D0-0018-0
Matrix: (soil/water) WATER
Lab Sample ID: O62935
Sample wt/vol: 5.0 (g/mL) ML
Lab File ID: P16885.D
Level: (low/med)
Date Received: 12/18/98
% Moisture: not dec. 100
Date Analyzed: 12/26/98
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

000074

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

000075

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-005

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: _____ Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62935

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16885.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/26/98

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

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
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000076

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000077

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH
Contract: FOSTER WHEELER ENVIRO CORP.
Project No.: 10152NJ
Site:
Location: NAWC TRENTON
Group: D0-0018-0
Matrix: (soil/water) WATER
Lab Sample ID: O62936
Sample wt/vol: 5.0 (g/mL) ML
Lab File ID: P16876.D
Level: (low/med)
Date Received: 12/18/98
% Moisture: not dec. 100
Date Analyzed: 12/25/98
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

000078

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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

000079

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
DO-0018-06-006

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 1015 Site: _____ Location: NAWC TRENTON Group: D0-0018-0

Matrix: (soil/water) WATER Lab Sample ID: O62936

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: P16876.D

Level: (low/med) _____ Date Received: 12/18/98

% Moisture: not dec. 100 Date Analyzed: 12/25/98

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
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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25.				
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28.				
29.				
30.				

000080

B.

TUNING RE
SUMMA

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06-

Lab File ID: P16830.D BFB Injection Date: 12/23/98

Instrument ID: VOA 2 BFB Injection Time: 1047

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	20.6
75	30.0 - 60.0% of mass 95	49.1
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	91.4
175	5.0 - 9.0% of mass 174	7.7 (8.4)1
176	Greater than 95% but less than 101% of mass 174	89.4 (97.8)1
177	5.0 - 9.0% of mass 176	5.6 (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	VSTD050	P16831.D	12/23/98	1115
02	VSTD020	VSTD020	P16832.D	12/23/98	1200
03	VSTD005	VSTD005	P16833.D	12/23/98	1243
04	VSTD100	VSTD100	P16834.D	12/23/98	1328
05	VSTD200	VSTD200	P16835.D	12/23/98	1420
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06-

Lab File ID: P16864.D BFB Injection Date: 12/25/98

Instrument ID: VOA 2 BFB Injection Time: 1319

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	20.8
75	30.0 - 60.0% of mass 95	51.9
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	84.0
175	5.0 - 9.0% of mass 174	6.6 (7.9)1
176	Greater than 95% but less than 101% of mass 174	81.3 (96.8)1
177	5.0 - 9.0% of mass 176	5.8 (7.2)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	P16865.D	12/25/98	1344
02	VBLK01	VBLK01	P16866.D	12/25/98	1437
03	DO-0018-06-FI	O62931	P16868.D	12/25/98	1606
04	DO-0018-06-00	O62929	P16872.D	12/25/98	1900
05	DO-0018-06-00	O62930	P16873.D	12/25/98	1943
06	DO-0018-06-00	O62932	P16874.D	12/25/98	2026
07	DO-0018-06-00	O62936	P16876.D	12/25/98	2153
08	DO-0018-06-00	O62936MS	P16877.D	12/25/98	2236
09	DO-0018-06-00	O62936SD	P16878.D	12/25/98	2320
10					
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14					
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16					
17					
18					
19					
20					
21					
22					

000083

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: _____ Location: _____ Group: D0-0018-06-

Lab File ID: P16879.D BFB Injection Date: 12/26/98

Instrument ID: VOA 2 BFB Injection Time: 1031

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	20.5
75	30.0 - 60.0% of mass 95	50.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.9
175	5.0 - 9.0% of mass 174	7.0 (8.4)1
176	Greater than 95% but less than 101% of mass 174	83.3 (99.2)1
177	5.0 - 9.0% of mass 176	5.6 (6.7)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	VSTD5003	P16880.D	12/26/98	1112
02	VBLK02	VBLK02	P16882.D	12/26/98	1305
03	D0-0018-06-005	O62935	P16885.D	12/26/98	1532
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

000084

C.

METHOD BLANK RESULTS SUMMARY

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No. 10152NJ Site: _____ Location: NAWC TRENTON Group: D0-0018-06-00

Matrix Spike - Sample No.: DO-0018-06-006

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	59	118	(61-145)
Benzene	50	0	53	106	(60-140)
Trichloroethene	50	0	46	92	(40-160)
Toluene	50	0	52	104	(76-125)
Chlorobenzene	50	0	49	98	(75-130)

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	61	122	3	14	(61-145)
Benzene	50	54	108	2	14	(60-140)
Trichloroethene	50	46	92	0	14	(40-160)
Toluene	50	54	108	4	13	(76-125)
Chlorobenzene	50	49	98	0	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: _____

000109

G.

INTERNAL STANDARD RESULTS SUMMARY

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-06-

Lab File ID (Standard): P16865.D Date Analyzed: 12/25/98

Instrument ID: VOA 2 Time Analyzed: 1344

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	846833	10.90	677983	17.80	423089	23.32
	UPPER LIMIT	1693666	11.40	1355966	18.30	846178	23.82
	LOWER LIMIT	423417	10.40	338992	17.30	211545	22.82
	SAMPLE NO.						
01	VBLK01	816279	10.88	680174	17.77	406818	23.30
02	DO-0018-06-FIEL	690705	10.89	556231	17.79	329126	23.31
03	DO-0018-06-002	658499	10.89	554179	17.78	332224	23.32
04	DO-0018-06-007	670193	10.88	550143	17.79	321859	23.30
05	DO-0018-06-001	612116	10.88	484426	17.78	281647	23.31
06	DO-0018-06-006	609614	10.89	511694	17.78	328205	23.30
07	DO-0018-06-006MS	589673	10.89	490166	17.78	301807	23.30
08	DO-0018-06-006MSD	591676	10.89	519765	17.78	297594	23.31
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.

000111

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRO CORP.

Project No.: 10152NJ Site: Location: Group: D0-0018-06-

Lab File ID (Standard): P16880.D Date Analyzed: 12/26/98

Instrument ID: VOA 2 Time Analyzed: 1112

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	884062	10.94	772885	17.83	491337	23.35
	UPPER LIMIT	1768124	11.44	1545770	18.33	982674	23.85
	LOWER LIMIT	442031	10.44	386443	17.33	245669	22.85
	SAMPLE NO.						
01	VBLK02	781652	10.90	633812	17.80	384004	23.31
02	D0-0018-06-005	696197	10.90	586356	17.80	373306	23.32
03							
04							
05							
06							
07							
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.

000112

H.

CHROMATOGRAMS

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16872.D
Acq Time : 25 Dec 98 7:00 pm
Sample : 10152NJ-62929
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.89	96	658499	50.00 ug/L	0.00
42) Chlorobenzene-d5	17.78	117	554179	50.00 ug/L	-0.02
56) 1,4-dichlorobenzene-d4	23.32	152	332224	50.00 ug/L	0.00
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	9.46	113	257276	45.45 ug/L	90.90%
29) 1,2-Dichlorethane-d4	10.23	65	255668	46.71 ug/L	93.41%
37) Toluene-d8	14.45	98	551640	45.24 ug/L	90.47%
41) 4-Bromofluorobenzene	20.58	95	403937	46.82 ug/L	93.64%
Target Compounds					**Qvalue**
31) trichloroethene	11.71	130	62328	10.50 ug/L	92
44) tetrachloroethene	15.78	166	49472	6.17 ug/L	94

000114

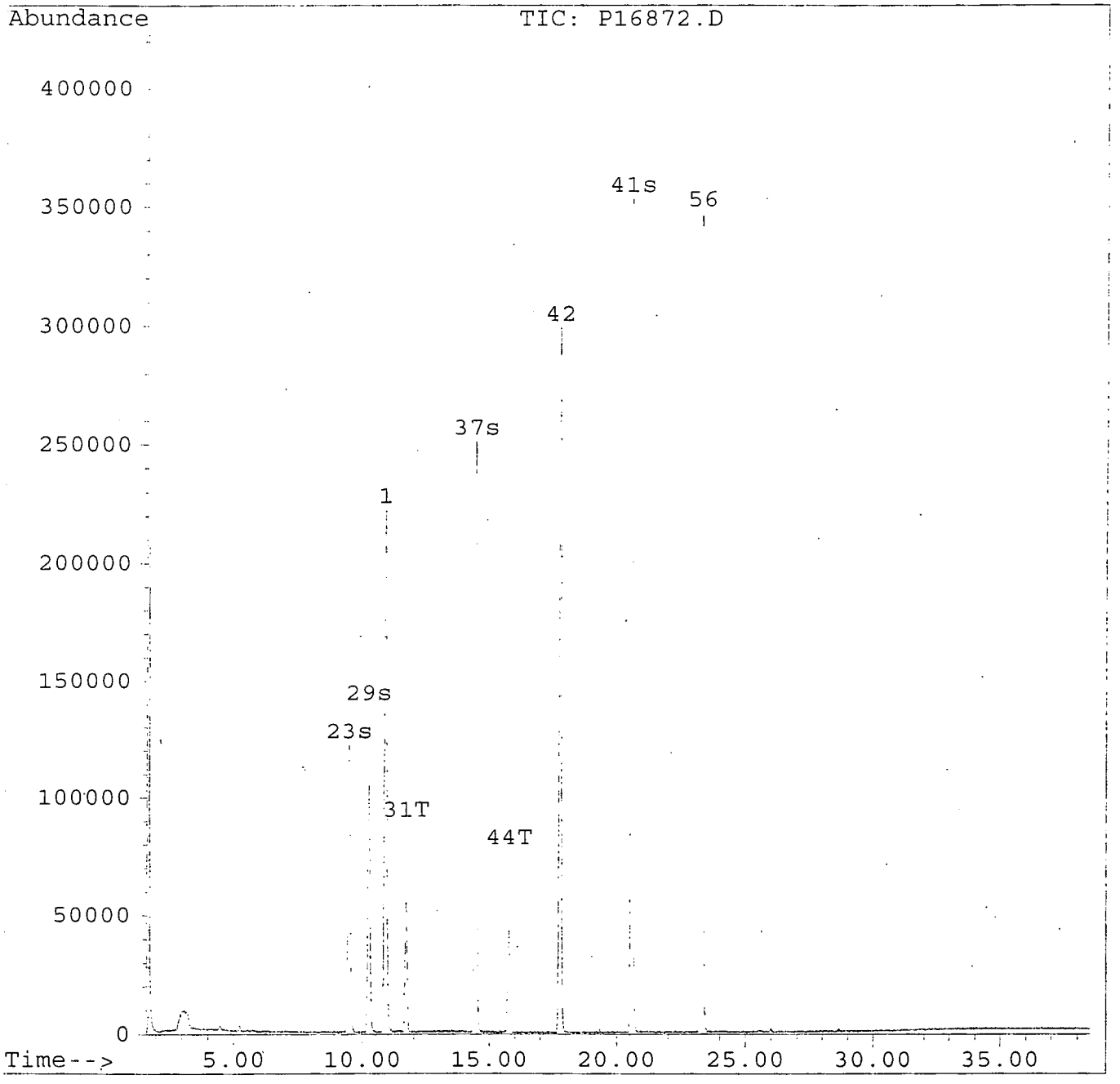
(#) = qualifier out of range (m) = manual integration

Quantitation Report

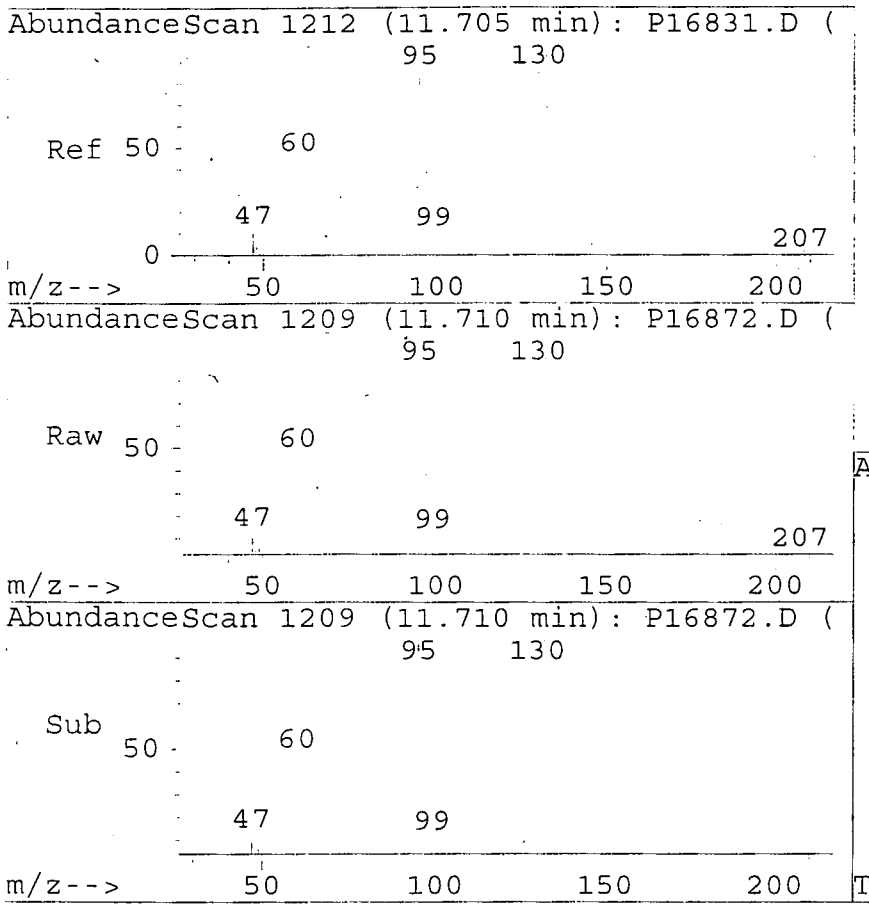
Data File : H:\HPCHEM\1\DATA\V21225\P16872.D
Acq Time : 25 Dec 98 7:00 pm
Sample : 10152NJ-62929
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



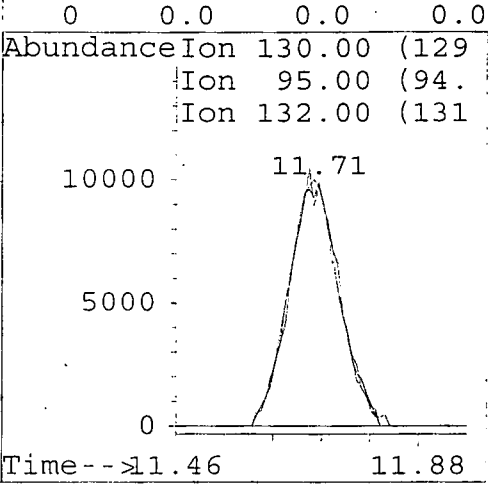
000115

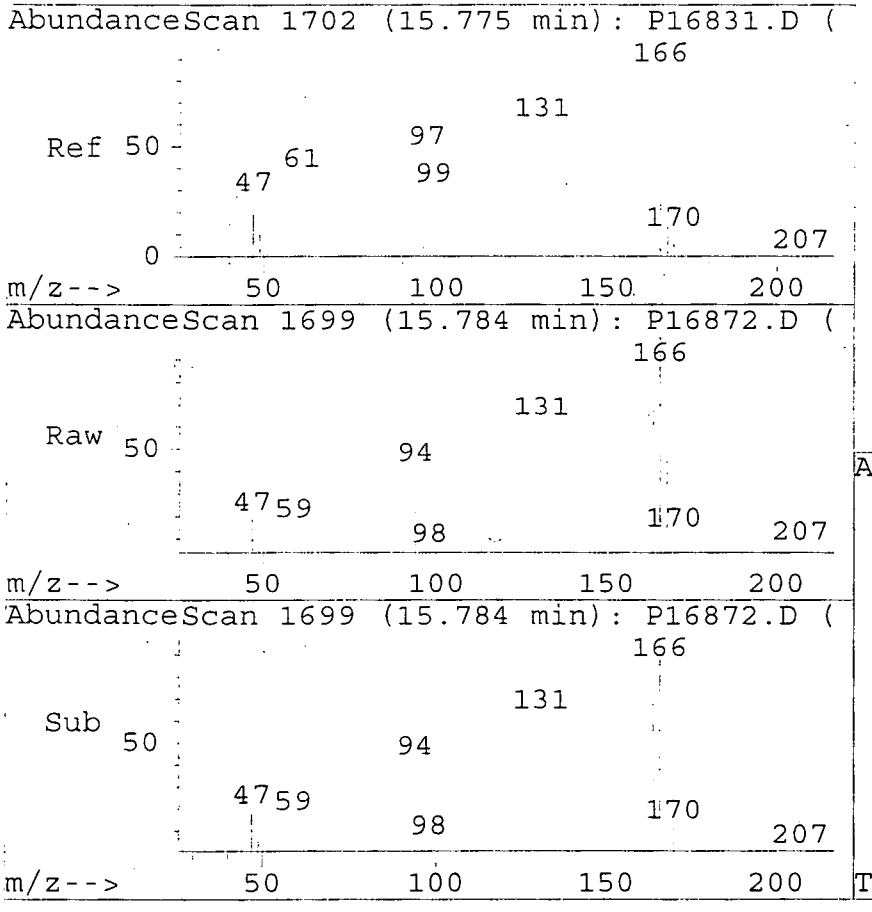


#31
trichloroethene
Concen: 10.50 ug/L
RT: 11.71 min Scan# 1209
Delta R.T. 0.01 min
Lab File: P16872.D
Acq: 25 Dec 98 7:00 pm

Tgt Ion:130 Resp: 62328

Ion	Ratio	Lower	Upper
130	100		
95	98.6	61.9	114.8
132	98.4	65.3	121.2
0	0.0	0.0	0.0

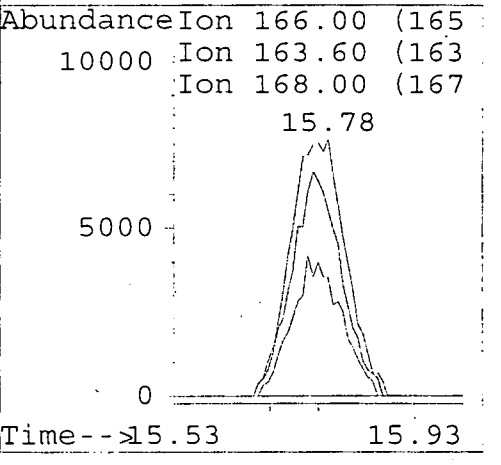




#44
tetrachloroethene
Concen: 6.17 ug/L
RT: 15.78 min Scan# 1699
Delta R.T. 0.01 min
Lab File: P16872.D
Acq: 25 Dec 98 7:00 pm

Tgt Ion:166 Resp: 49472

Ion	Ratio	Lower	Upper
166	100		
164	71.9	54.2	100.5
168	46.0	34.7	64.4
0	0.0	0.0	0.0



000116

Library Search Compound Report

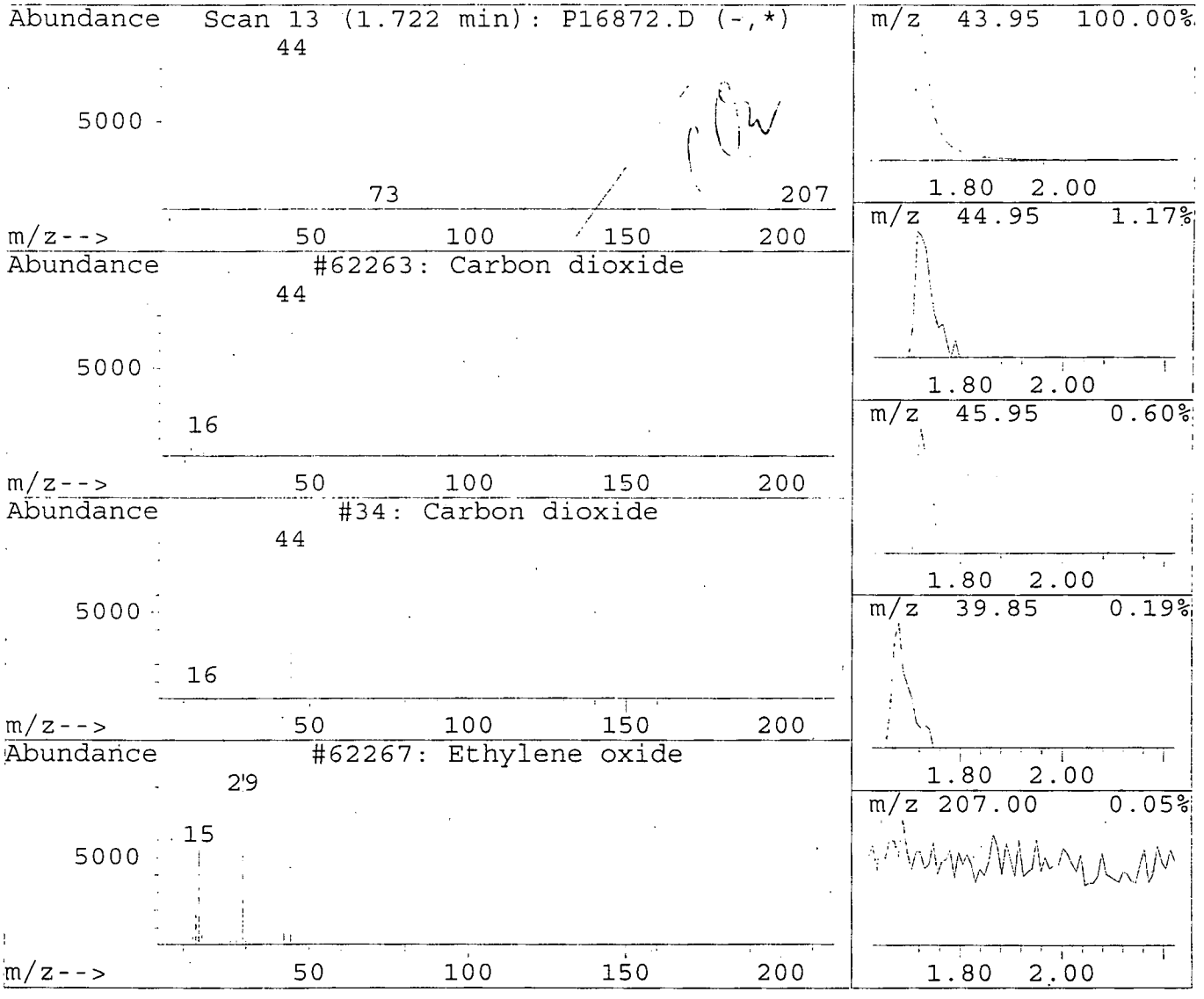
Data File : H:\HPCHEM\1\DATA\V21225\P16872.D
Acq Time : 25 Dec 98 7:00 pm
Sample : 10152NJ-62929
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.72	18.81 ug/L	531540	Fluorobenzene	10.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Ethylene oxide	62266	000075-21-8	3
5	Nitrous Oxide	39	010024-97-2	3



Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16873.D
Acq Time : 25 Dec 98 7:43 pm
Sample : 10152NJ-62930
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.88	96	670193	50.00 ug/L	-0.02
42) Chlorobenzene-d5	17.79	117	550143	50.00 ug/L	-0.01
56) 1,4-dichlorobenzene-d4	23.30	152	321859	50.00 ug/L	-0.02
System Monitoring Compounds					**%Recovery**
23) Dibromofluoromethane	9.45	113	278140	48.28 ug/L	96.55%
29) 1,2-Dichlorethane-d4	10.23	65	270211	48.50 ug/L	97.00%
37) Toluene-d8	14.45	98	572784	46.15 ug/L	92.30%
41) 4-Bromofluorobenzene	20.59	95	391429	44.58 ug/L	89.15%

Target Compounds Qvalue

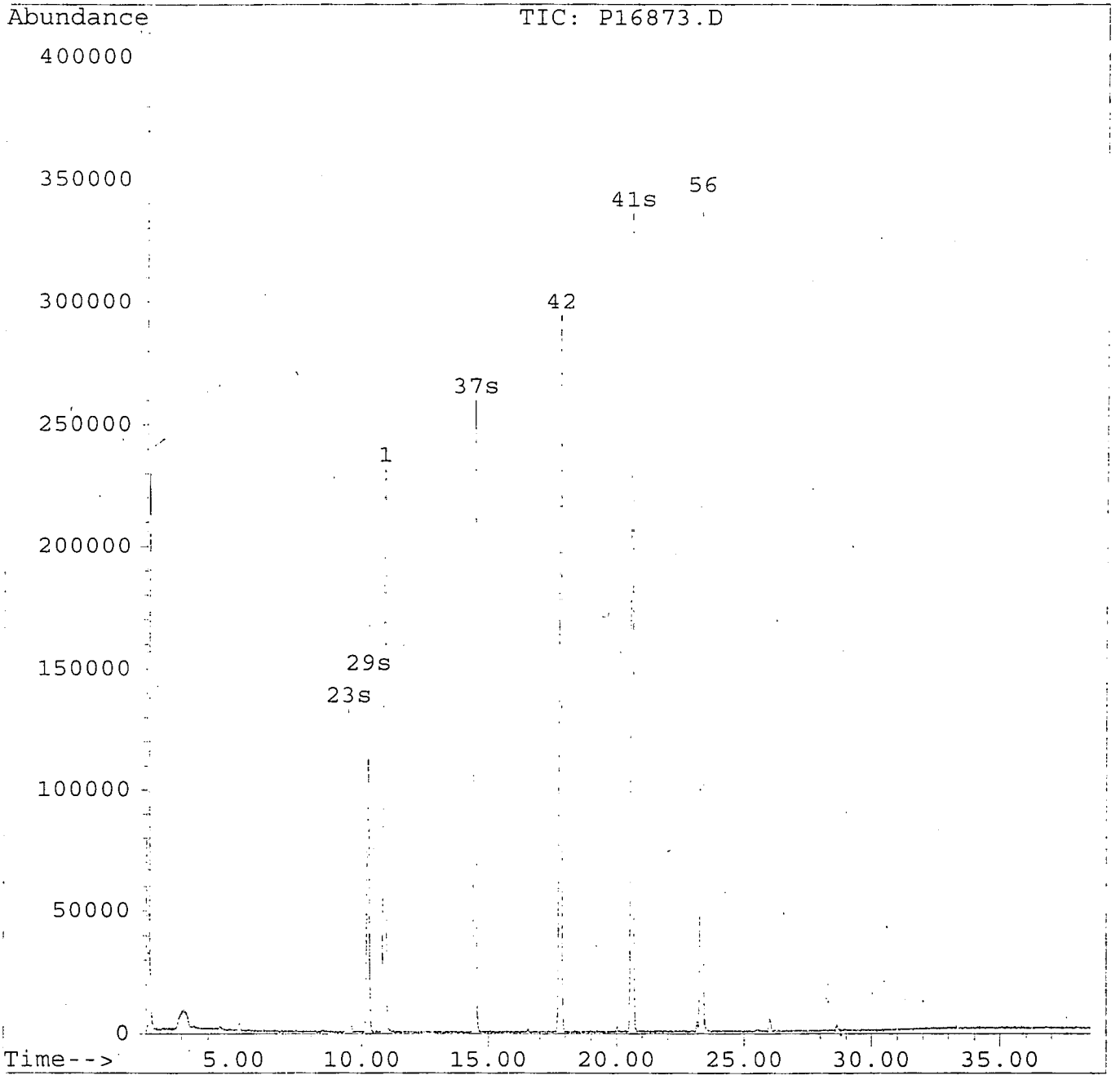
(#) = qualifier out of range (m) = manual integration
P16873.D V21222CW.M Sat Dec 26 11:50:38 1998 Page 1

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16873.D
Acq Time : 25 Dec 98 7:43 pm
Sample : 10152NJ-62930
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



000119

Library Search Compound Report

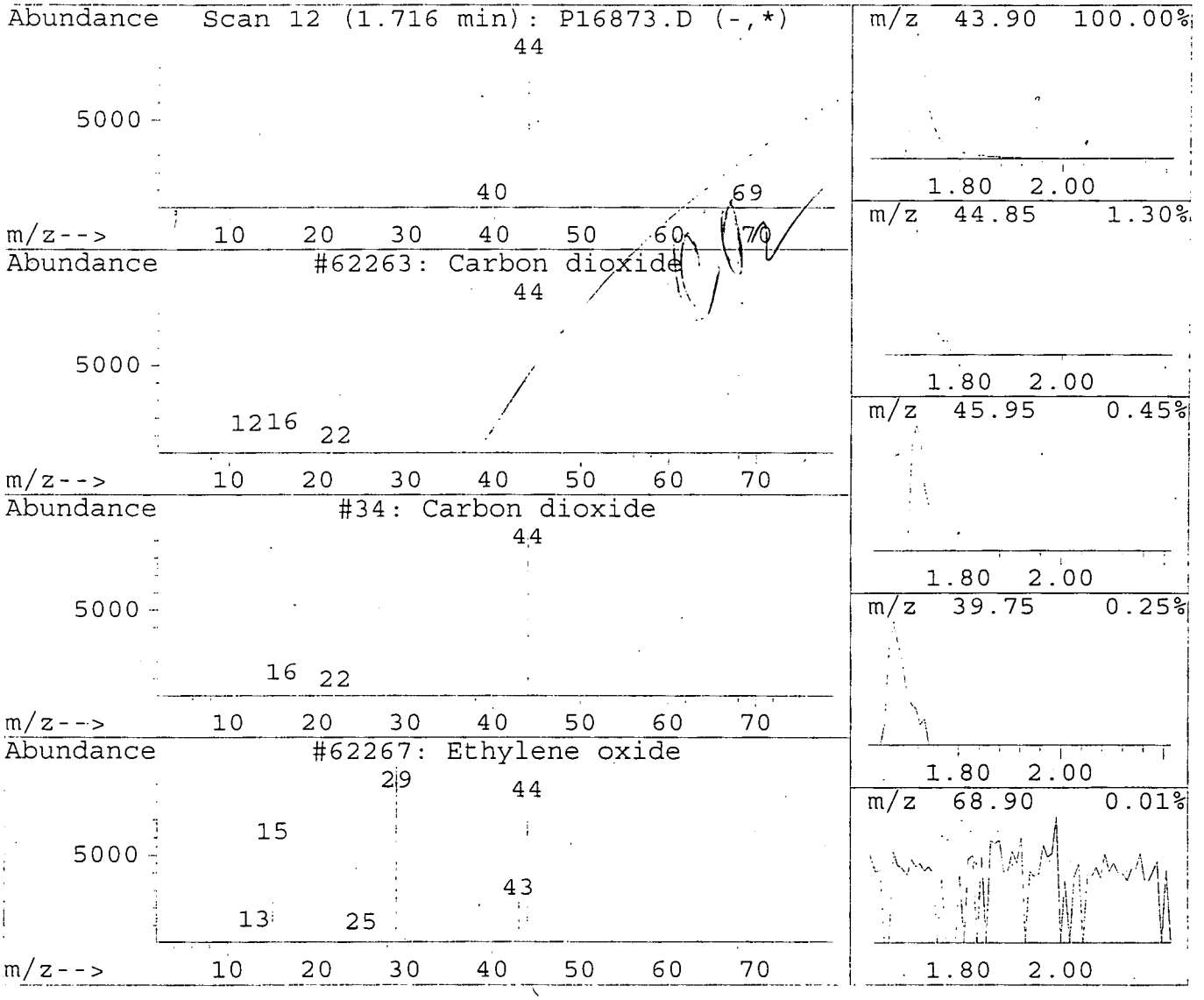
Data File : H:\HPCHEM\1\DATA\V21225\P16873.D
Acq Time : 25 Dec 98 7:43 pm
Sample : 10152NJ-62930
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.72	20.38 ug/L	597901	Fluorobenzene	10.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Nitrous Oxide	62271	010024-97-2	3
5	Nitrous Oxide	39	010024-97-2	3



000120

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16868.d
Acq Time : 25 Dec 98 4:06 pm
Sample : 10152NJ-62931
Misc : 5ML
Quant Time: Dec 25 17:57 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.89	96	690705	50.00 ug/L	-0.01
42) Chlorobenzene-d5	17.79	117	556231	50.00 ug/L	0.00
56) 1,4-dichlorobenzene-d4	23.31	152	329126	50.00 ug/L	-0.01
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.46	113	288838	48.65 ug/L	97.29%
29) 1,2-Dichlorethane-d4	10.23	65	277707	48.37 ug/L	96.73%
37) Toluene-d8	14.45	98	601060	46.99 ug/L	93.98%
41) 4-Bromofluorobenzene	20.59	95	420389	46.45 ug/L	92.91%
Target Compounds					Qvalue
10) Acetone	4.47	43	15325	5.62 ug/L	100
12) methylene chloride	5.23	84	46148	12.41 ug/L	91

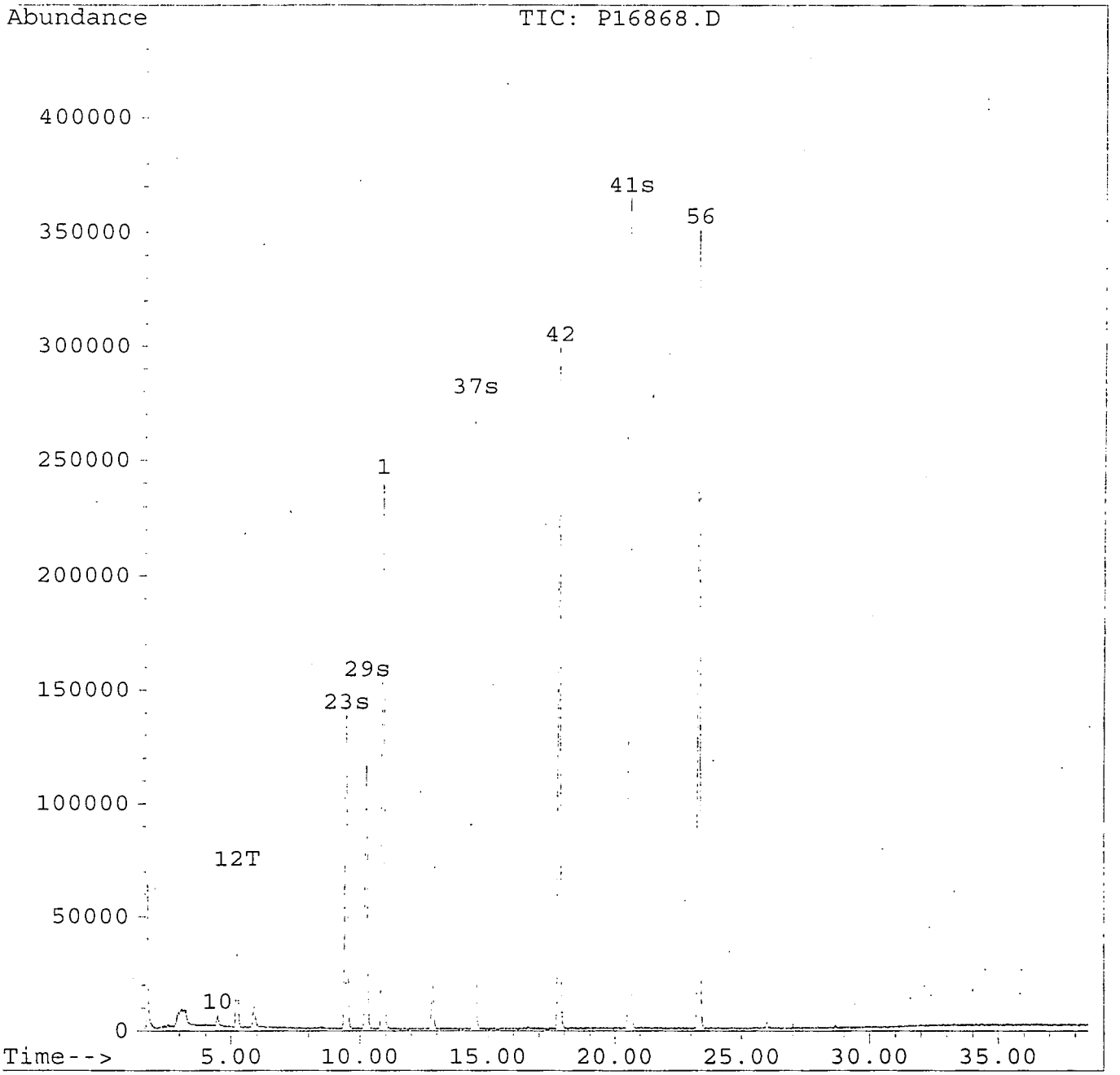
(#) = qualifier out of range (m) = manual integration 000121

Quantitation Report

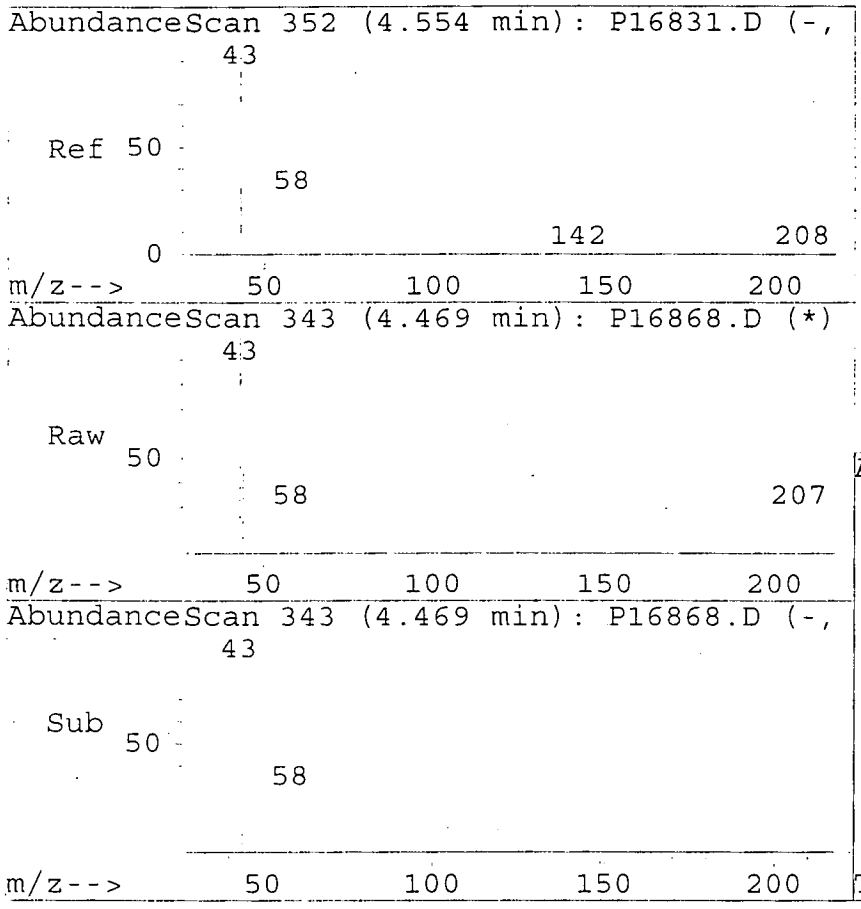
Data File : H:\HPCHEM\1\DATA\V21225\P16868.d
Acq Time : 25 Dec 98 4:06 pm
Sample : 10152NJ-62931
Misc : 5ML
Quant Time: Dec 25 17:57 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



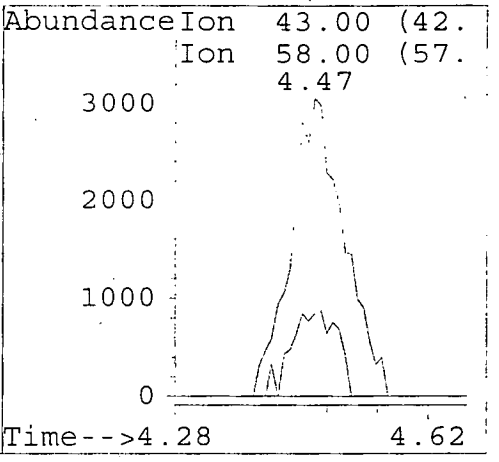
000122

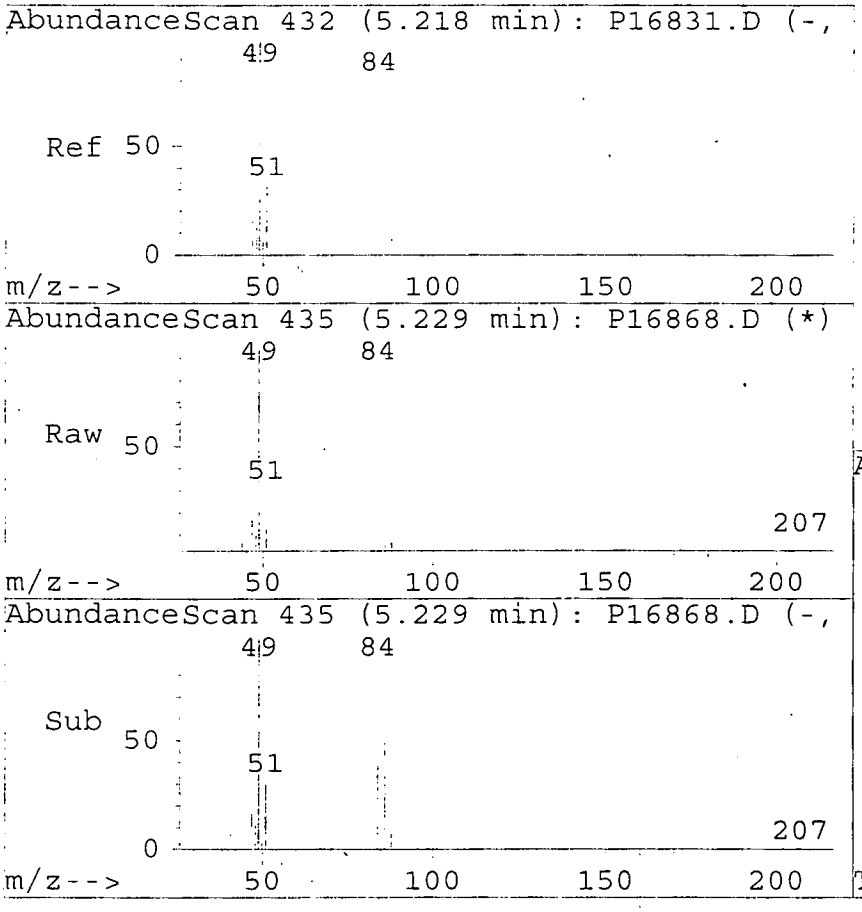


#10
Acetone
Concen: 5.62 ug/L
RT: 4.47 min Scan# 343
Delta R.T. -0.09 min
Lab File: P16868.d
Acq: 25 Dec 98 4:06 pm

Tgt Ion:43 Resp: 15325

Ion	Ratio	Lower	Upper
43	100		
58	25.1	0.0	49.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

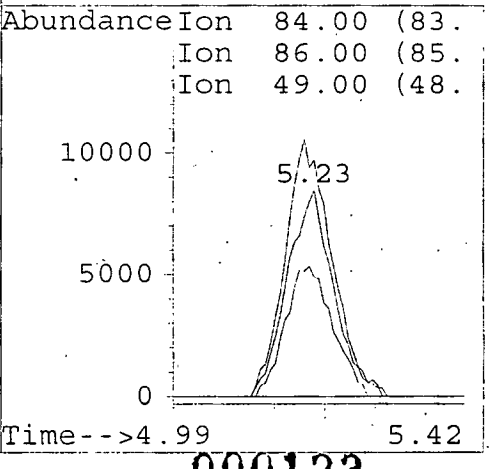




#12
methylene chloride
Concen: 12.41 ug/L
RT: 5.23 min Scan# 435
Delta R.T. 0.01 min
Lab File: P16868.d
Acq: 25 Dec 98 4:06 pm

Tgt Ion:84 Resp: 46148

Ion	Ratio	Lower	Upper
84	100		
86	57.9	47.3	87.8
49	114.9	86.6	160.9
0	0.0	0.0	0.0



000123

Library Search Compound Report

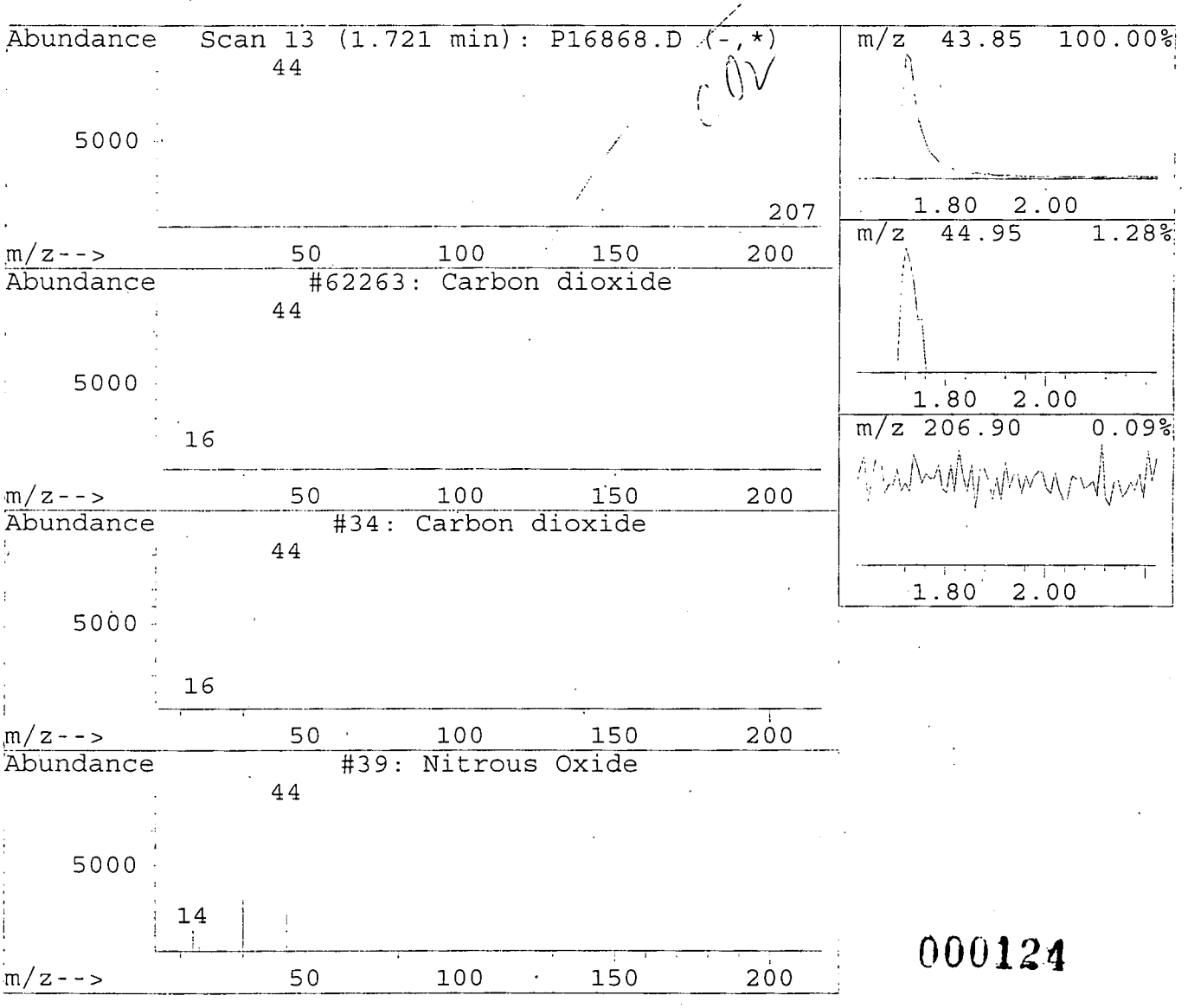
Data File : H:\HPCHEM\1\DATA\V21225\P16868.d
Acq Time : 25 Dec 98 4:06 pm
Sample : 10152NJ-62931
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.72	5.86 ug/L	176284	Fluorobenzene	10.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	3
2	Carbon dioxide	34	000124-38-9	3
3	Nitrous Oxide	39	010024-97-2	3
4	Nitrous Oxide	62270	010024-97-2	3
5	Nitrous Oxide	62271	010024-97-2	3



000124

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16874.D
Acq Time : 25 Dec 98 8:26 pm
Sample : 10152NJ-62932
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.88	96	612116	50.00 ug/L	-0.02
42) Chlorobenzene-d5	17.78	117	484426	50.00 ug/L	-0.02
56) 1,4-dichlorobenzene-d4	23.31	152	281647	50.00 ug/L	-0.02
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.46	113	241602	45.91 ug/L	91.83%
29) 1,2-Dichlorethane-d4	10.24	65	244974	48.14 ug/L	96.29%
37) Toluene-d8	14.45	98	515960	45.52 ug/L	91.03%
41) 4-Bromofluorobenzene	20.58	95	356046	44.39 ug/L	88.79%
Target Compounds					Qvalue
31) trichloroethene	11.68	130	17160	3.11 ug/L	92
44) tetrachloroethene	15.77	166	145999	20.83 ug/L	98

000125

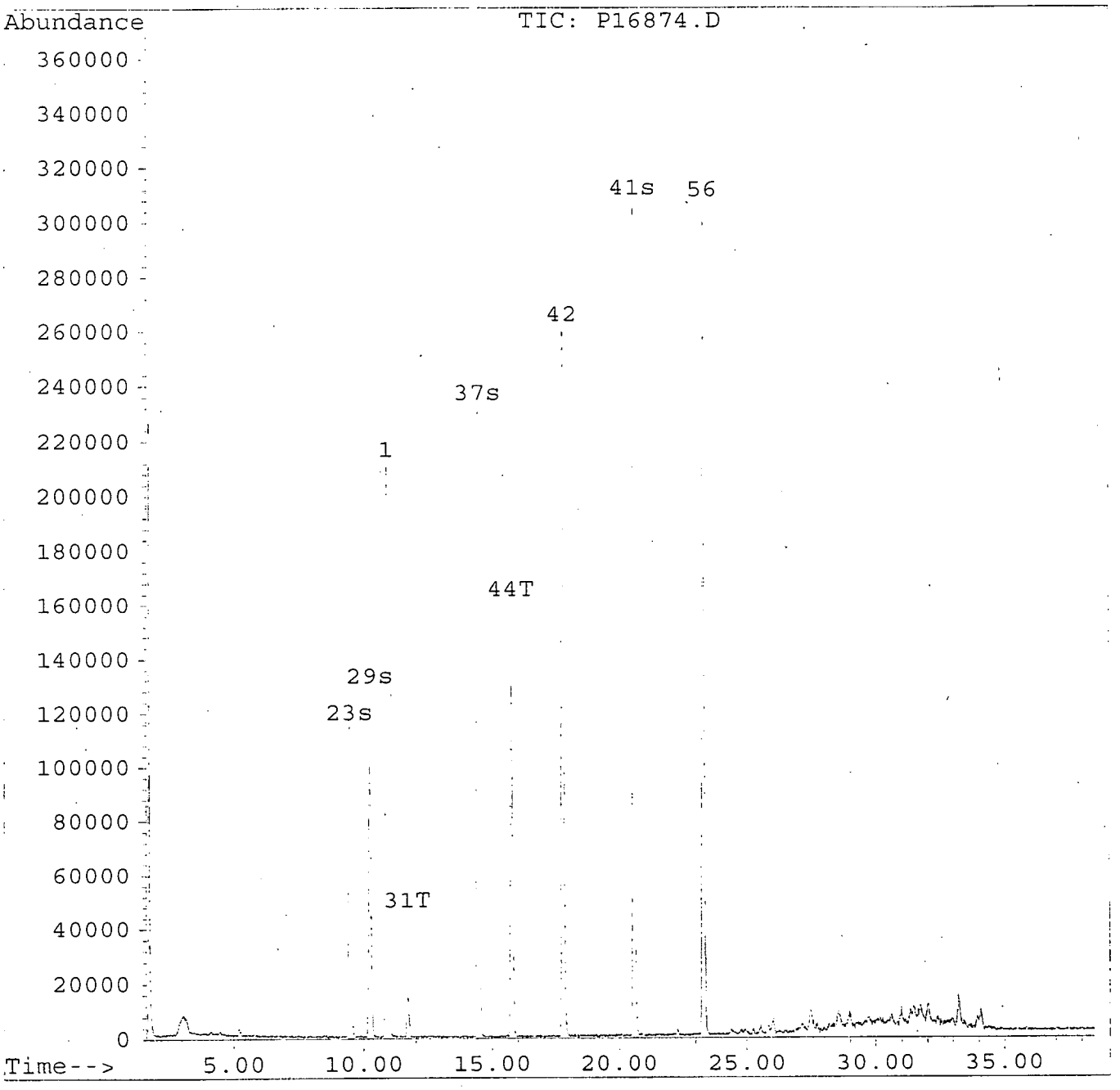
(#) = qualifier out of range (m) = manual integration

Quantitation Report

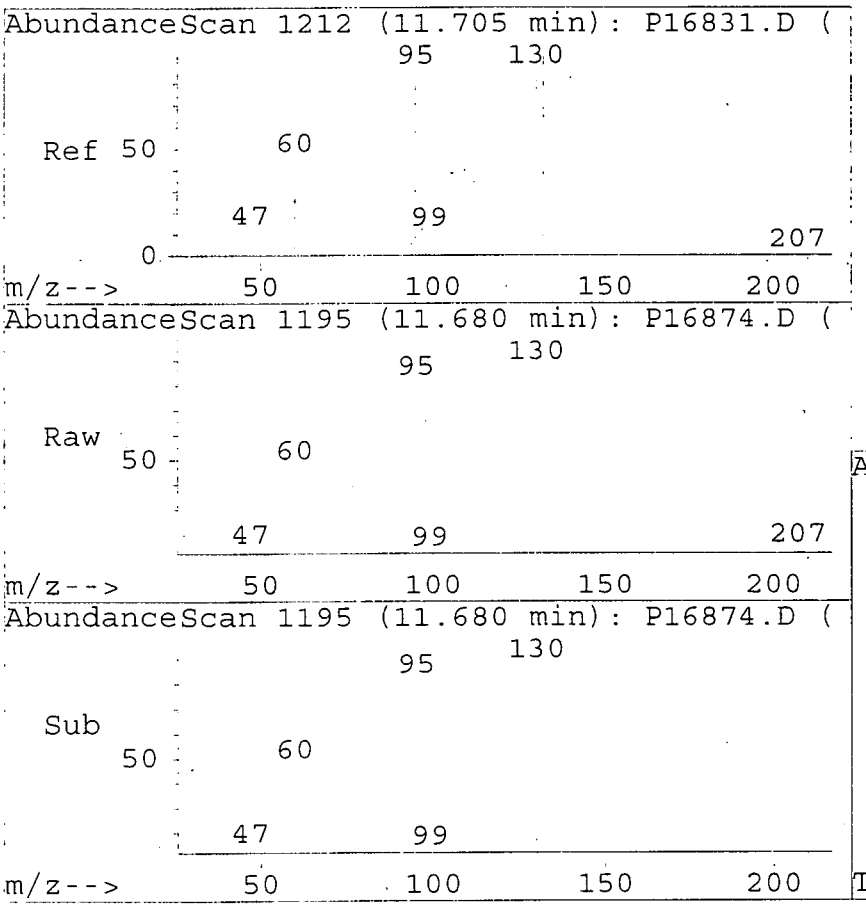
Data File : H:\HPCHEM\1\DATA\V21225\P16874.D
Acq Time : 25 Dec 98 8:26 pm
Sample : 10152NJ-62932
Misc : 5ML
Quant Time: Dec 26 11:50 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



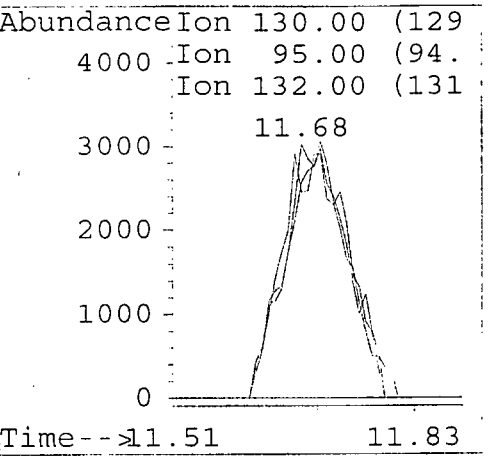
000126

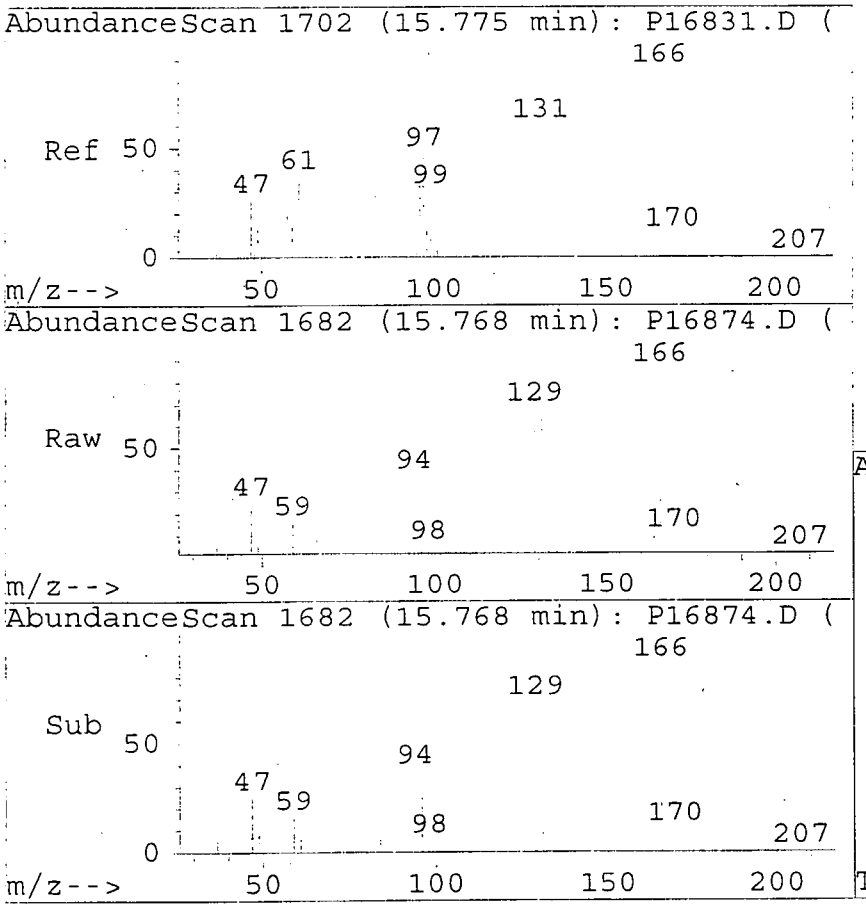


#31
trichloroethene
Concen: 3.11 ug/L
RT: 11.68 min Scan# 1195
Delta R.T. -0.03 min
Lab File: P16874.D
Acq: 25 Dec 98 8:26 pm

Tgt Ion:130 Resp: 17160

Ion	Ratio	Lower	Upper
130	100		
95	81.0	61.9	114.8
132	84.9	65.3	121.2
0	0.0	0.0	0.0

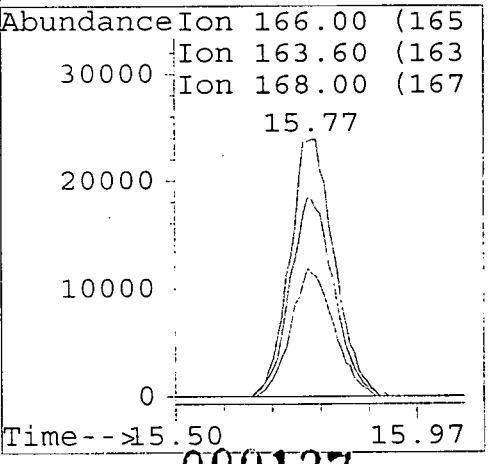




#44
tetrachloroethene
Concen: 20.83 ug/L
RT: 15.77 min Scan# 1682
Delta R.T. -0.01 min
Lab File: P16874.D
Acq: 25 Dec 98 8:26 pm

Tgt Ion:166 Resp: 145999

Ion	Ratio	Lower	Upper
166	100		
164	76.3	54.2	100.5
168	48.0	34.7	64.4
0	0.0	0.0	0.0



000127

Library Search Compound Report

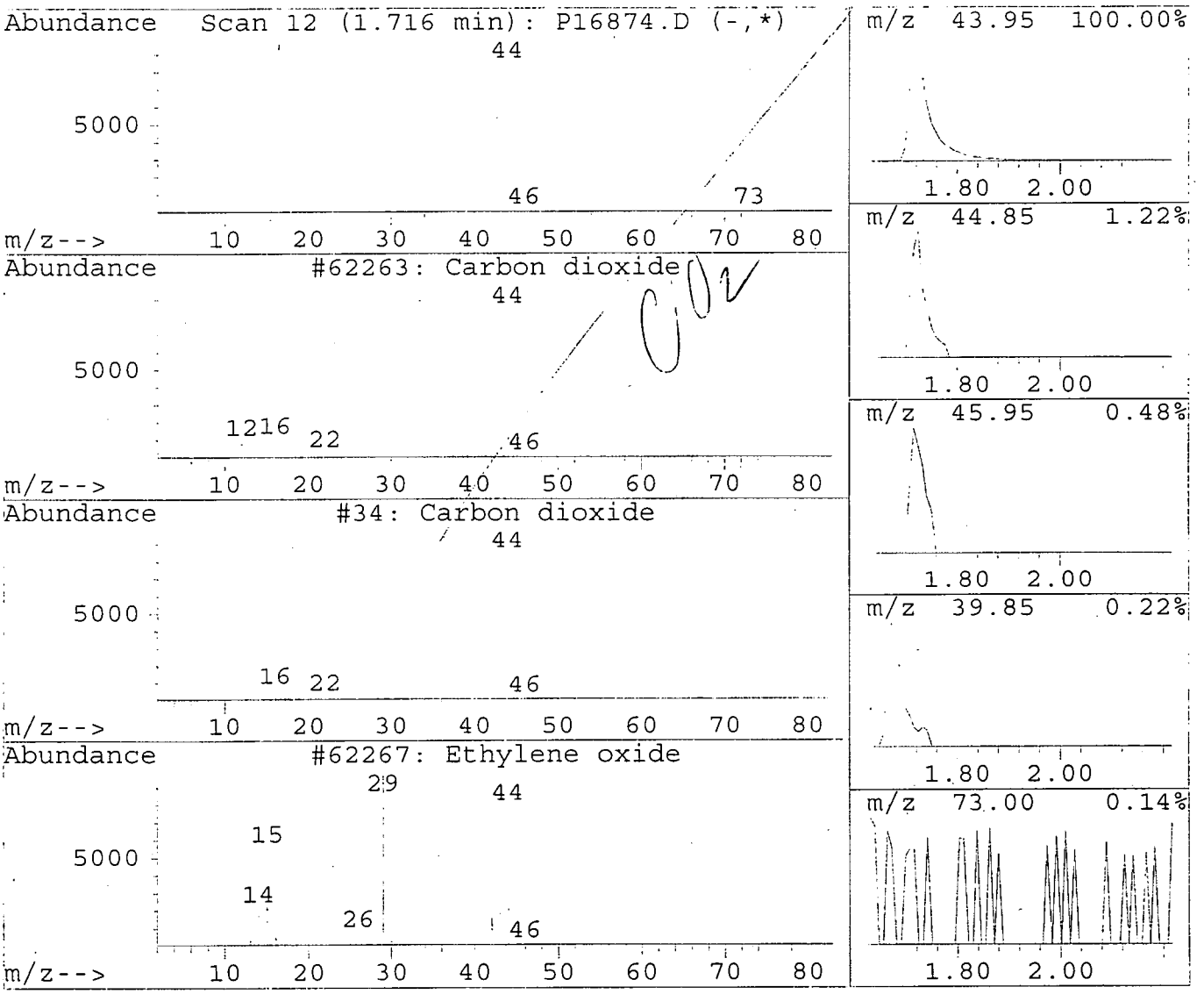
Data File : H:\HPCHEM\1\DATA\V21225\P16874.D
Acq Time : 25 Dec 98 8:26 pm
Sample : 10152NJ-62932
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.72	22.77 ug/L	610719	Fluorobenzene	10.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Nitrous Oxide	62271	010024-97-2	3
5	Nitrous Oxide	62270	010024-97-2	3



000128

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21226\P16885.D
Acq Time : 26 Dec 98 3:32 pm
Sample : 10152NJ-62935
Misc : 5ML
Quant Time: Dec 26 16:05 1998

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.90	96	696197	50.00 ug/L	0.00
42) Chlorobenzene-d5	17.80	117	586356	50.00 ug/L	0.00
56) 1,4-dichlorobenzene-d4	23.32	152	373306	50.00 ug/L	0.00
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.47	113	278554	46.54 ug/L	93.09%
29) 1,2-Dichlorethane-d4	10.25	65	259088	44.77 ug/L	89.54%
37) Toluene-d8	14.46	98	576676	44.73 ug/L	89.46%
41) 4-Bromofluorobenzene	20.60	95	415822	45.59 ug/L	91.17%
Target Compounds					Qvalue
10) Acetone	4.47	43	8478	3.09 ug/L	77

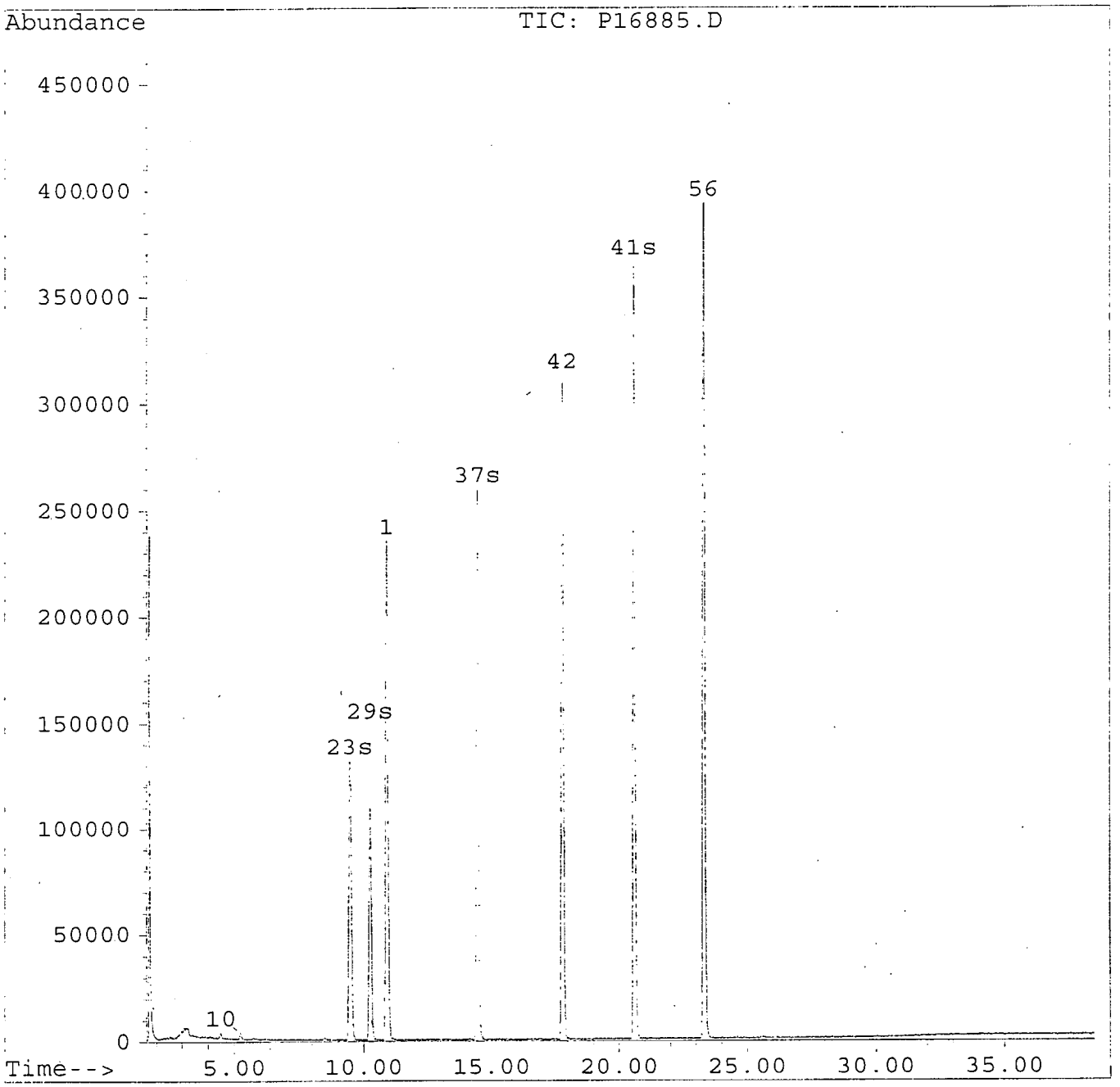
(#) = qualifier out of range (m) = manual integration 000129

Quantitation Report

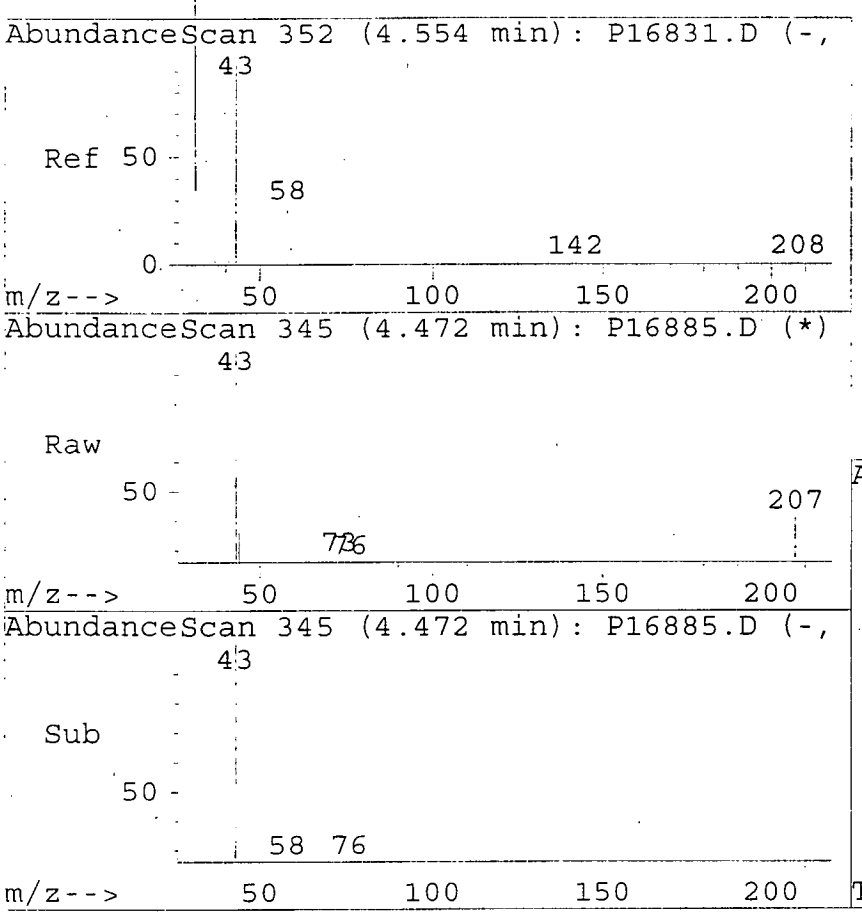
Data File : H:\HPCHEM\1\DATA\V21226\P16885.D
Acq Time : 26 Dec 98 3:32 pm
Sample : 10152NJ-62935
Misc : 5ML
Quant Time: Dec 26 16:05 1998

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



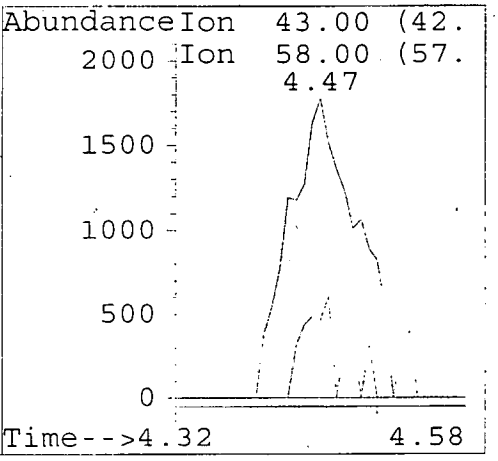
000130



#10
Acetone
Concen: 3.09 ug/L
RT: 4.47 min Scan# 345
Delta R.T. -0.08 min
Lab File: P16885.D
Acq: 26 Dec 98 3:32 pm

Tgt Ion:43 Resp: 8478

Ion	Ratio	Lower	Upper
43	100		
58	13.5	0.0	49.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000131

Library Search Compound Report

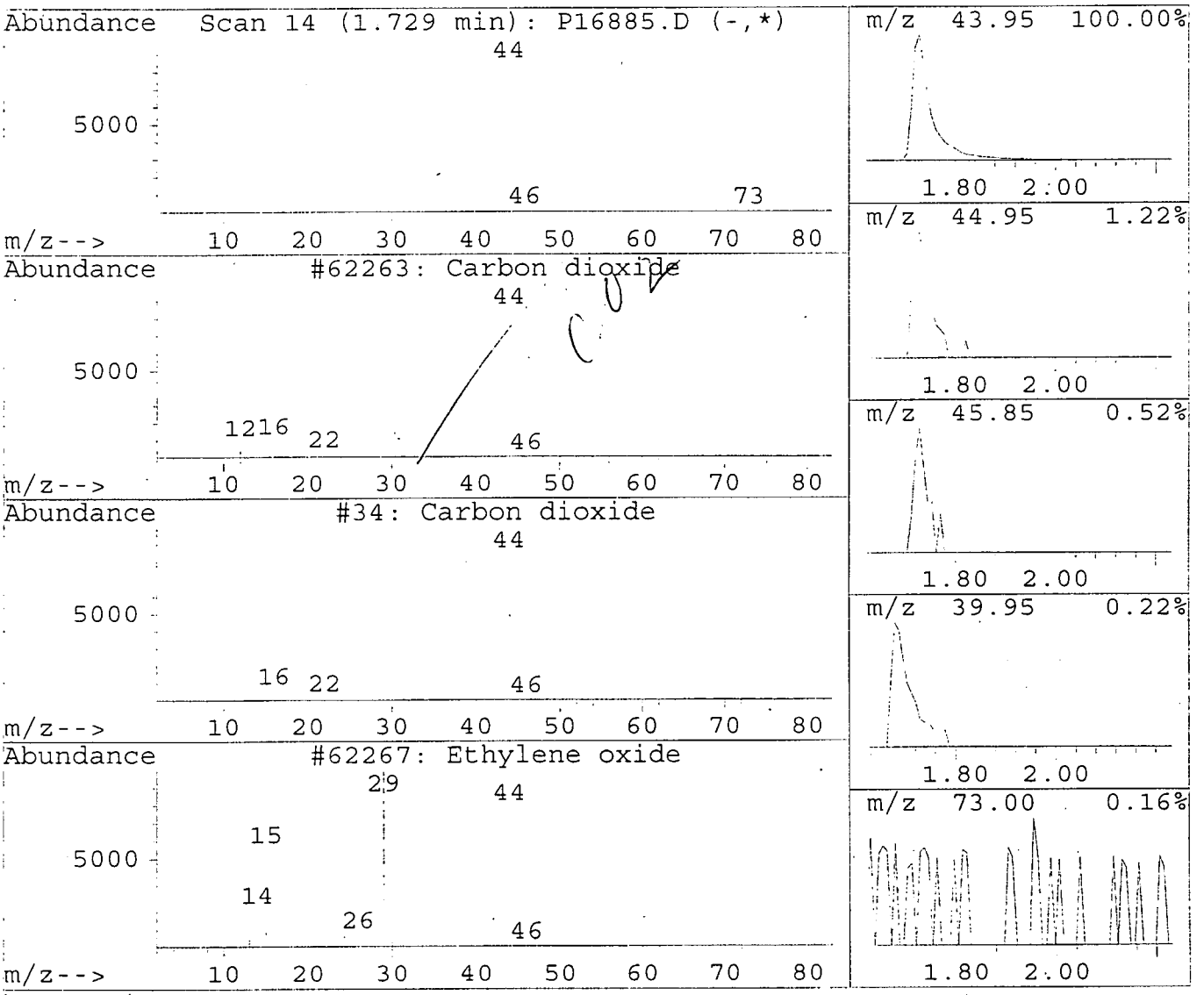
Data File : H:\HPCHEM\1\DATA\V21226\P16885.D
Acq Time : 26 Dec 98 3:32 pm
Sample : 10152NJ-62935
Misc : 5ML

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.73	20.60 ug/L	622858	Fluorobenzene	10.90

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Ethylene oxide	62266	000075-21-8	3
5	Nitrous Oxide	62271	010024-97-2	3



000132

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16876.D
Acq Time : 25 Dec 98 9:53 pm
Sample : 10152NJ-62936
Misc : 5ML
Quant Time: Dec 26 11:51 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.89	96	609614	50.00 ug/L	0.00
42) Chlorobenzene-d5	17.78	117	511694	50.00 ug/L	-0.01
56) 1,4-dichlorobenzene-d4	23.30	152	328205	50.00 ug/L	-0.02

System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.46	113	251700	48.03 ug/L	96.06%
29) 1,2-Dichlorethane-d4	10.24	65	256429	50.60 ug/L	101.20%
37) Toluene-d8	14.44	98	532495	47.17 ug/L	94.34%
41) 4-Bromofluorobenzene	20.58	95	387883	48.56 ug/L	97.13%

Target Compounds Qvalue

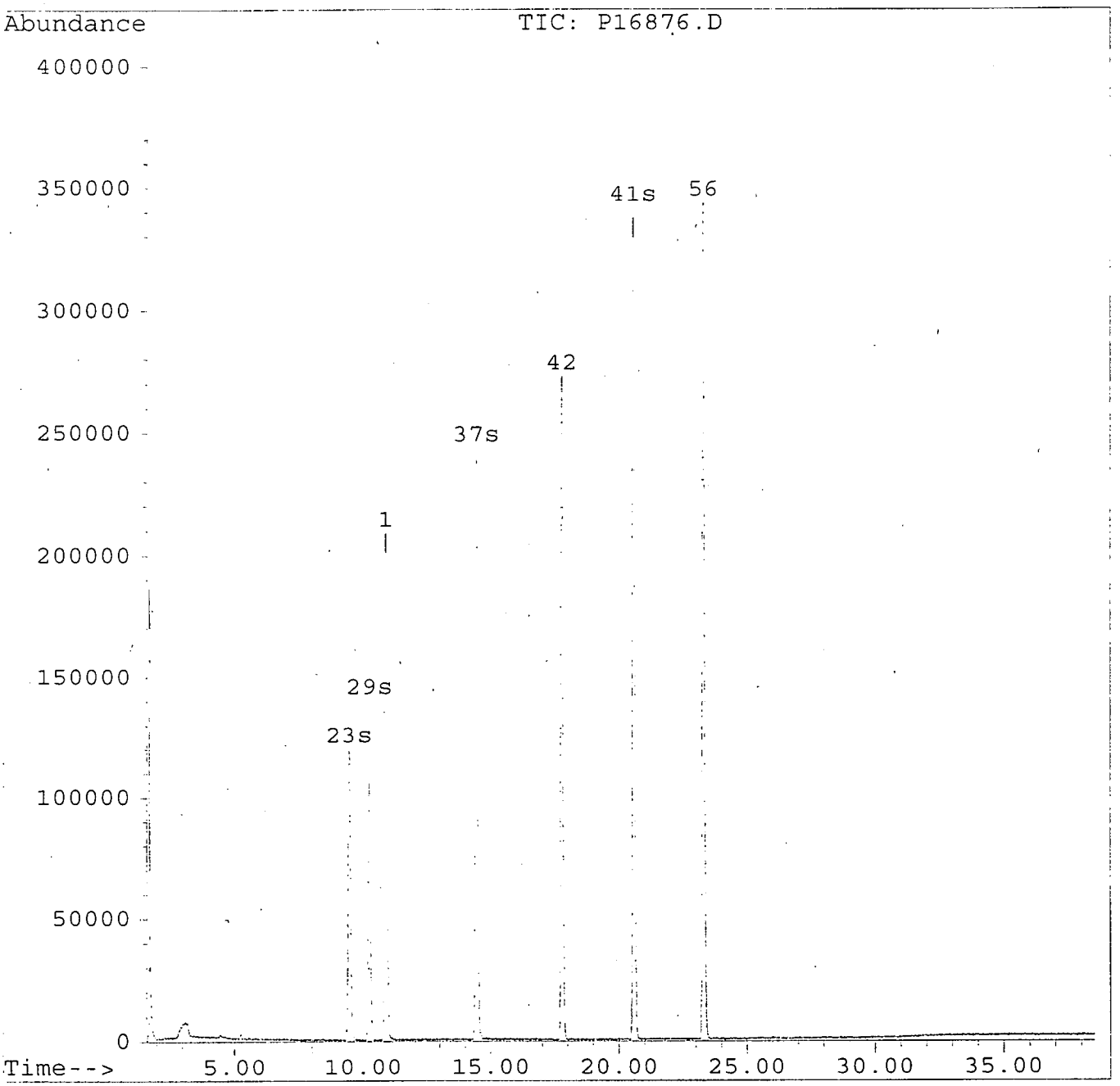
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16876.D
Acq Time : 25 Dec 98 9:53 pm
Sample : 10152NJ-62936
Misc : 5ML
Quant Time: Dec 26 11:51 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



000134

Library Search Compound Report

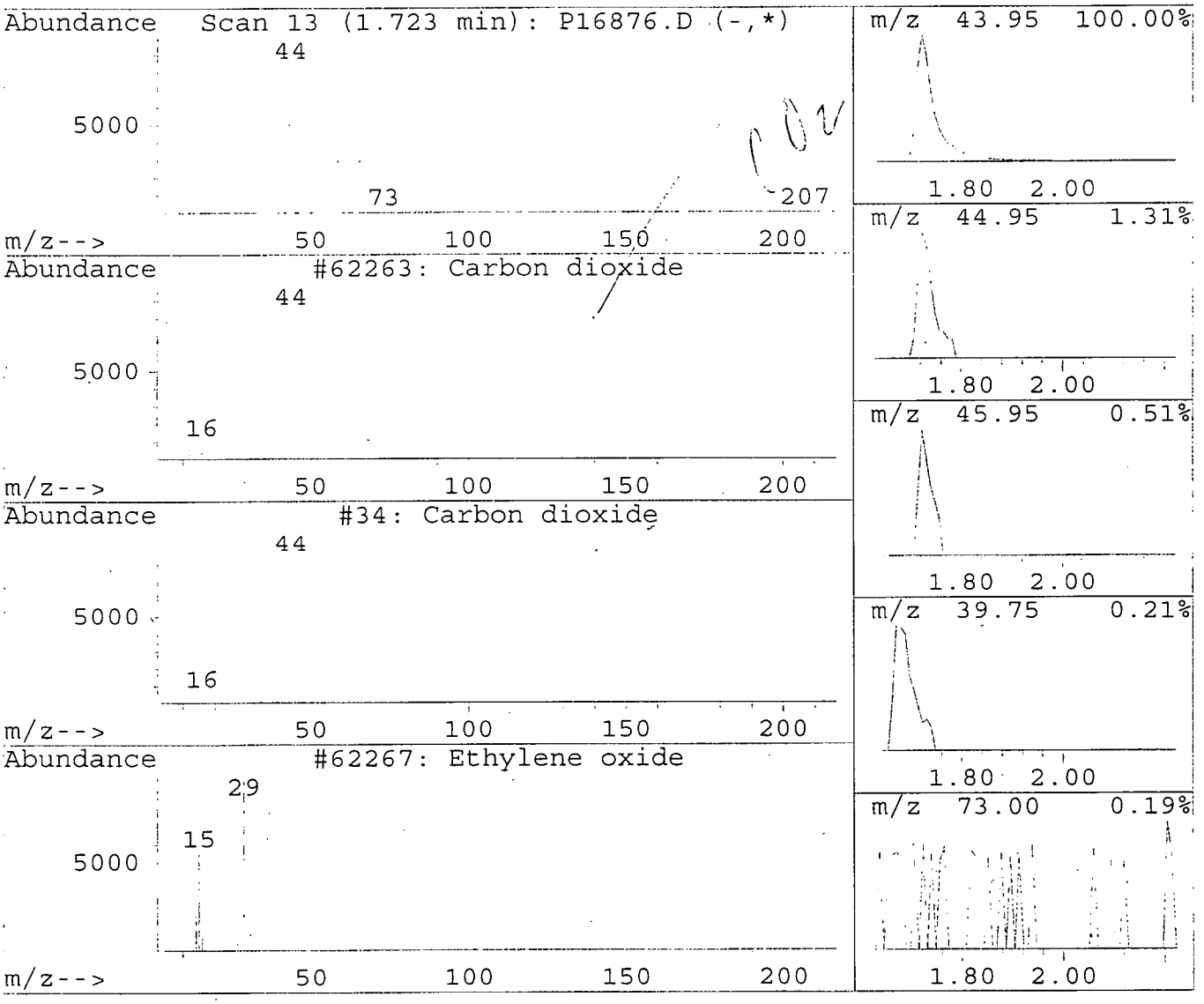
Data File : H:\HPCHEM\1\DATA\V21225\P16876.D
Acq Time : 25 Dec 98 9:53 pm
Sample : 10152NJ-62936
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.72	19.96 ug/L	534272	Fluorobenzene	10.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Nitrous Oxide	62271	010024-97-2	3
5	Nitrous Oxide	39	010024-97-2	3



Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16866.D
Acq Time : 25 Dec 98 2:37 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Dec 25 17:57 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.88	96	816279	50.00 ug/L	-0.02
42) Chlorobenzene-d5	17.77	117	680174	50.00 ug/L	-0.02
56) 1,4-dichlorobenzene-d4	23.30	152	406818	50.00 ug/L	-0.03
System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.44	113	316969	45.17 ug/L	90.34%
29) 1,2-Dichlorethane-d4	10.23	65	303031	44.66 ug/L	89.32%
37) Toluene-d8	14.45	98	686889	45.44 ug/L	90.88%
41) 4-Bromofluorobenzene	20.57	95	481757	45.04 ug/L	90.09%

Target Compounds Qvalue

000136

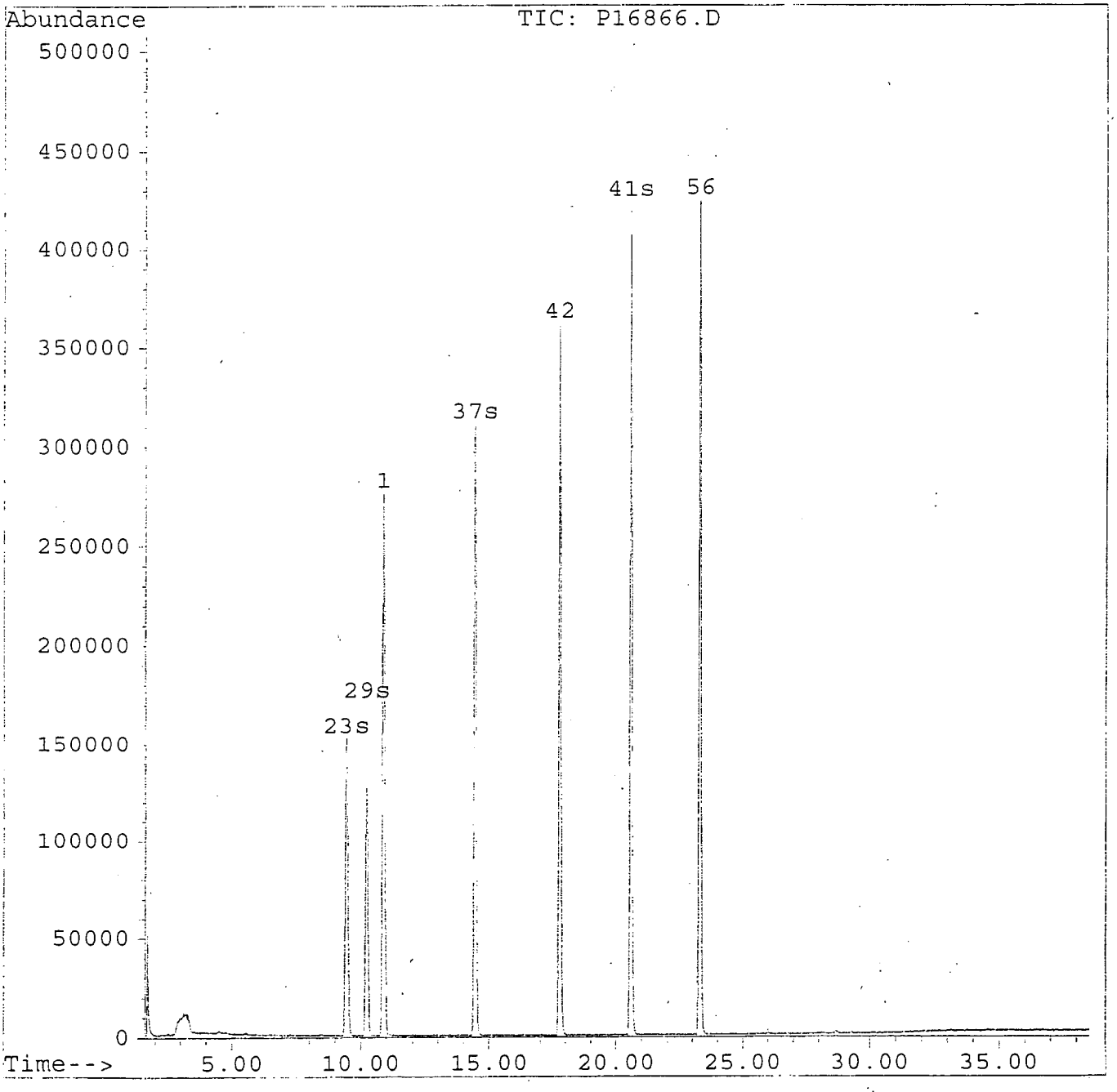
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21225\P16866.D
Acq Time : 25 Dec 98 2:37 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Dec 25 17:57 1998

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



000137

Library Search Compound Report

Data File : H:\HPCHEM\1\DATA\V21225\P16866.D
Acq Time : 25 Dec 98 2:37 pm
Sample : PRO BLK
Misc : 5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000138

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21226\P16882.D
Acq Time : 26 Dec 98 1:05 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Dec 26 14:51 1998

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	10.90	96	781652	50.00 ug/L	0.00
42) Chlorobenzene-d5	17.80	117	633812	50.00 ug/L	0.00
56) 1,4-dichlorobenzene-d4	23.31	152	384004	50.00 ug/L	0.00

System Monitoring Compounds					%Recovery
23) Dibromofluoromethane	9.47	113	332840	49.53 ug/L	99.07%
29) 1,2-Dichlorethane-d4	10.25	65	289574	44.57 ug/L	89.13%
37) Toluene-d8	14.47	98	653613	45.15 ug/L	90.31%
41) 4-Bromofluorobenzene	20.60	95	446926	43.64 ug/L	87.28%

Target Compounds Qvalue

000139

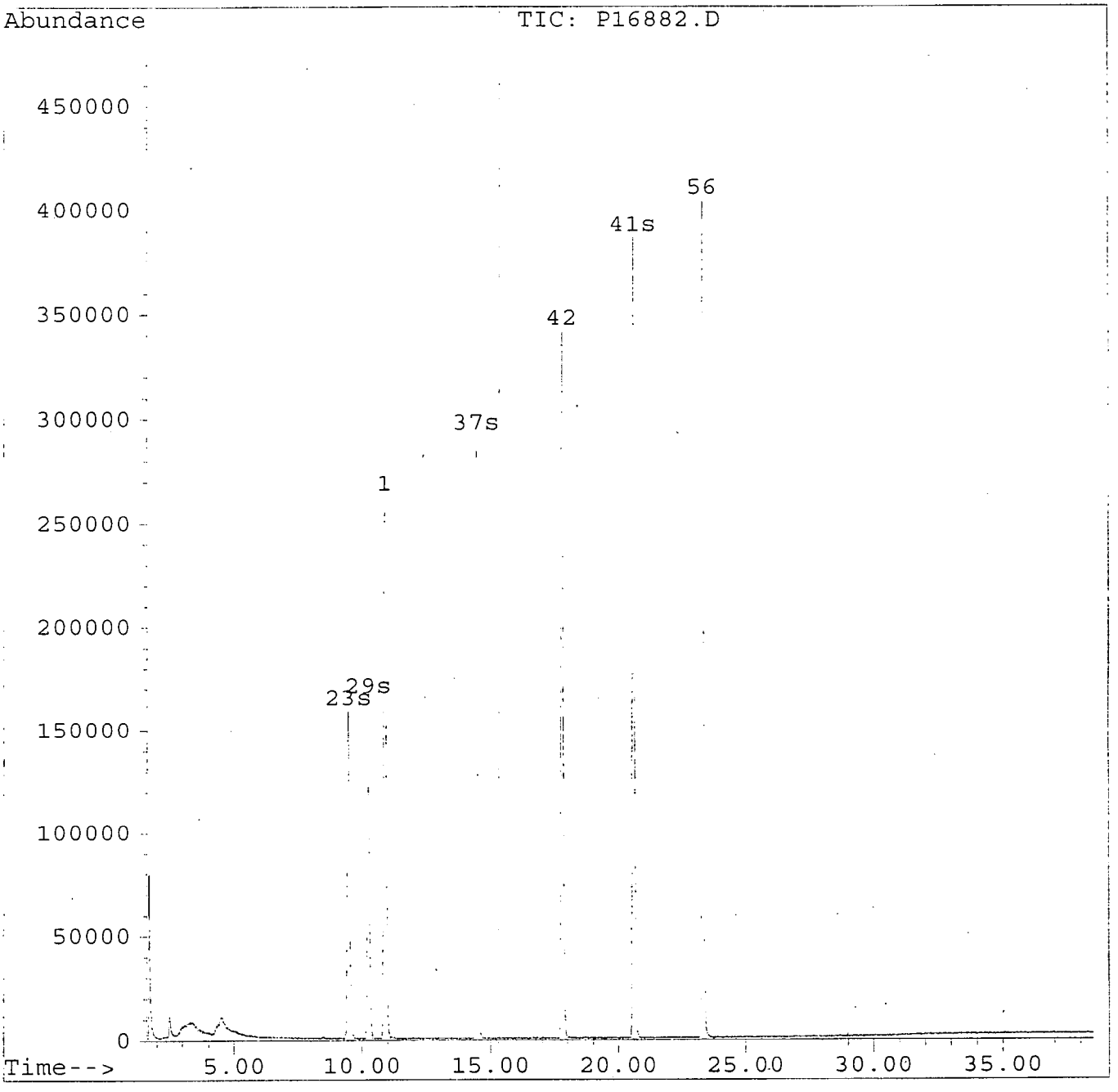
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : H:\HPCHEM\1\DATA\V21226\P16882.D
Acq Time : 26 Dec 98 1:05 pm
Sample : PRO BLK
Misc : 5ML
Quant Time: Dec 26 14:51 1998

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Last Update : Wed Dec 23 17:44:04 1998
Response via : Multiple Level Calibration



000140

Library Search Compound Report

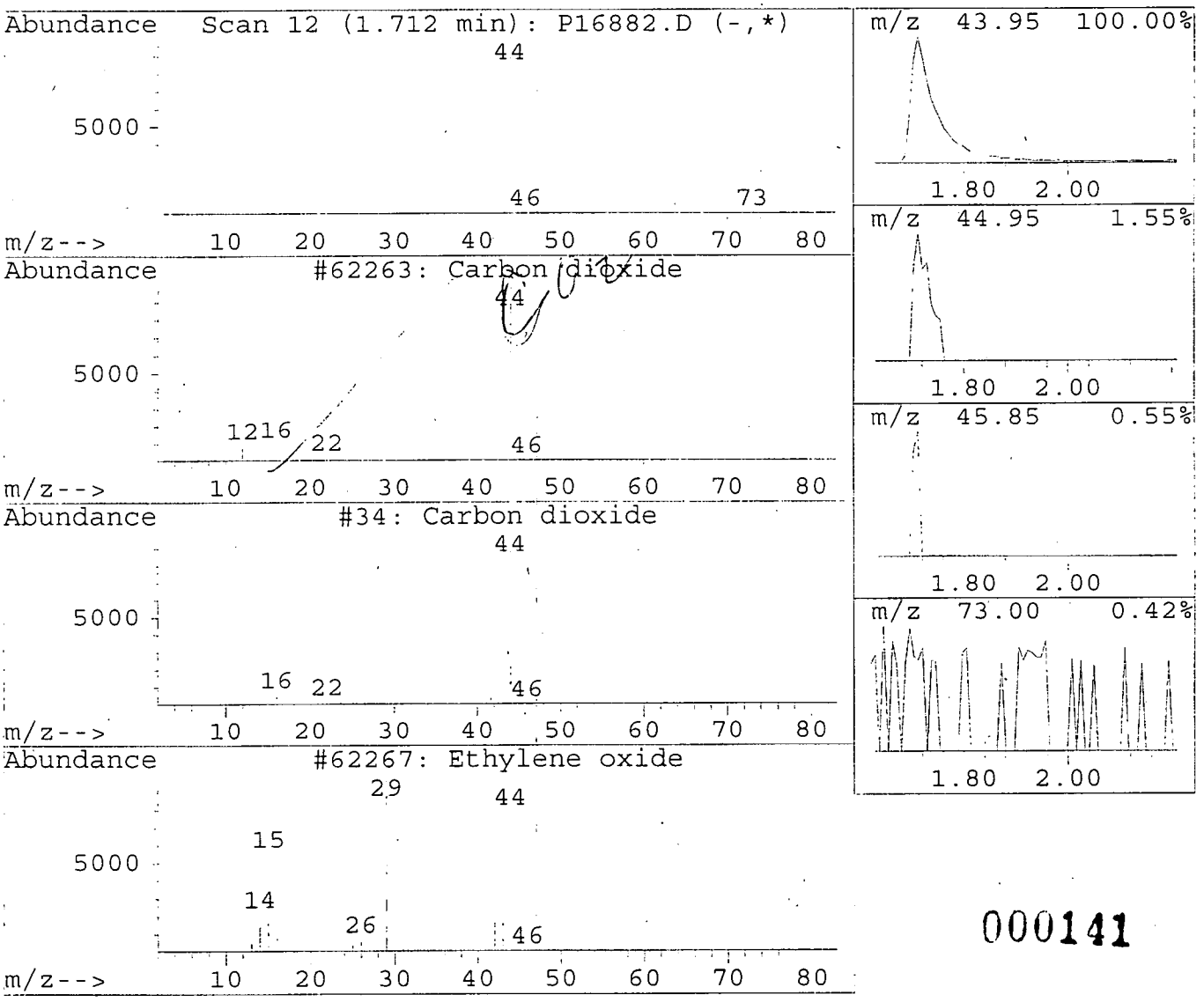
Data File : H:\HPCHEM\1\DATA\V21226\P16882.D
Acq Time : 26 Dec 98 1:05 pm
Sample : PRO BLK
Misc : 5ML

Operator: JJ
Inst : voa2
Multiplr: 1.00

Method : H:\HPCHEM\1\METHODS\V21222CW.M
Title : VOA
Library : F:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
1.71	7.79 ug/L	262552	Fluorobenzene	10.90

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Carbon dioxide	34	000124-38-9	4
3	Ethylene oxide	62267	000075-21-8	3
4	Ethylene oxide	62266	000075-21-8	3
5	Ethyne, fluoro-	35	002713-09-9	3



000141

IV.

METALS DATA

A.

ANALYTICAL RESULTS SUMMARY

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-002

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62929S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	2.4	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	42.9			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000144

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-002D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62929DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000145

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-007

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62930S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.2	B		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	43.2			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000146

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-007D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62930DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000147

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62931S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	39.3			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000148

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-FIELD BLANKD

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62931DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000149

ANALYSIS REPORT
1

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE #

D0-0018-06-004

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62934S

Level (low/med): LOW Date Received: 12/18/98

% 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	7.0	U		P
7440-38-2	Arsenic	4.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	2.0	U		P
7439-89-6	Iron	27.0	U		P
7439-92-1	Lead	2.0	U		P
7439-96-5	Manganese	1.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-66-6	Zinc	41.1			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

TOTAL METALS

000150

ANALYSIS REPORT
1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

D0-0018-06-004D

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

Matrix (soil/water): WATER Lab Sample ID: 62934DS

Level (low/med): LOW Date Received: 12/18/98

% 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	27.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DISSOLVED METALS

000151

B.

BLANK RESULTS SUMMARY

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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	7.0	U	7.0	U	7.0	U	-10.5	B	7.000	U	P
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U	4.000	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Iron	27.0	U	27.0	U	27.0	U	27.0	U	27.000	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	2.000	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

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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			7.0	U	-12.1	B					P
Arsenic			4.0	U	4.0	U					P
Cadmium			1.0	U	1.0	U					P
Chromium			2.0	U	2.0	U					P
Iron			27.0	U	27.0	U					P
Lead			2.0	U	2.0	U					P
Manganese			1.0	U	1.0	U					P
Mercury			0.2	U					0.200	U	CV
Zinc			2.0	U	2.0	U					P

000154

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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											NR
Arsenic											NR
Cadmium											NR
Chromium											NR
Iron											NR
Lead											NR
Manganese											NR
Mercury	0.2	U	0.2	U	0.2	U	0.2	U			CV
Zinc											NR

000155

ANALYSIS REPORT

3

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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											NR
Arsenic											NR
Cadmium											NR
Chromium											NR
Iron											NR
Lead											NR
Manganese											NR
Mercury			0.2	U	0.2	U					CV
Zinc											NR

000156

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.: 10152

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	2117.62	108.3	25000.0	23905.52	95.6	25049.83	100.2	P
Arsenic	50.9	54.76	107.6	2500.0	2384.52	95.4	2517.10	100.7	P
Cadmium	510.0	506.92	99.4	2500.0	2402.22	96.1	2510.81	100.4	P
Chromium	471.0	474.45	100.7	2500.0	2405.82	96.2	2513.72	100.5	P
Iron	1985.0	2108.14	106.2	10000.0	9538.90	95.4	10035.78	100.4	P
Lead	4938.0	5159.63	104.5	2500.0	2398.25	95.9	2513.70	100.5	P
Manganese	491.0	493.65	100.5	2500.0	2404.56	96.2	2512.74	100.5	P
Mercury	4.1	4.14	101.0	5.0	5.09	101.8	4.77	95.4	CV
Zinc	3012.0	3074.16	102.1	2500.0	2402.24	96.1	2516.94	100.7	P

(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.: 10152

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	23923.90	95.7	26441.40	105.8	P
Arsenic				2500.0	2343.32	93.7	2652.28	106.1	P
Cadmium				2500.0	2342.82	93.7	2515.60	100.6	P
Chromium				2500.0	2343.20	93.7	2451.34	98.1	P
Iron				10000.0	9601.08	96.0	10408.10	104.1	P
Lead				2500.0	2370.43	94.8	2528.17	101.1	P
Manganese				2500.0	2359.08	94.4	2476.01	99.0	P
Mercury				5.0	4.64	92.8	4.98	99.6	CV
Zinc				2500.0	2354.42	94.2	2508.07	100.3	P

(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.: 10152

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	24346.92	97.4			P
Arsenic				2500.0	2448.52	97.9			P
Cadmium				2500.0	2442.00	97.7			P
Chromium				2500.0	2445.70	97.8			P
Iron				10000.0	9755.00	97.6			P
Lead				2500.0	2441.39	97.7			P
Manganese				2500.0	2444.33	97.8			P
Mercury	4.1	4.13	100.7	5.0	5.13	102.6	4.80	96.0	CV
Zinc				2500.0	2433.68	97.3			P

(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.: 10152

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									NR
Arsenic									NR
Cadmium									NR
Chromium									NR
Iron									NR
Lead									NR
Manganese									NR
Mercury				5.0	4.90	98.0	5.24	104.8	CV
Zinc									NR

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

000161

ANALYSIS REPORT

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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									NR
Arsenic									NR
Cadmium									NR
Chromium									NR
Iron									NR
Lead									NR
Manganese									NR
Mercury				5.0	5.02	100.4			CV
Zinc									NR

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

000162

ANALYSIS REPORT

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

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	15.28	76.4	19.43	97.2
Cadmium				10.0	9.38	93.8	9.62	96.2
Chromium				20.0	18.42	92.1	18.96	94.8
Iron								
Lead				6.0	5.56	92.7	5.46	91.0
Manganese				30.0	29.79	99.3	30.44	101.5
Mercury	0.2	0.23	115.0					
Zinc				40.0	38.36	95.9	38.59	96.5

ANALYSIS REPORT

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 10152

AA CRDL Standard Source: INOR-VEN

ICP CRDL Standard Source:

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								
Cadmium								
Chromium								
Iron								
Lead								
Manganese								
Mercury	0.2	0.26	130.0					
Zinc								

000164

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.: 10152

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	496658	506188.4	100.1	479519	518665.3	102.6
Arsenic	0	97	1	94.9	97.8	-3	82.5	85.1
Cadmium	0	871	0	861.5	98.9	0	856.5	98.3
Chromium	38	456	38	452.2	99.2	37	457.7	100.4
Iron	186000	177250	186156	195074.1	110.1	179837	194467.5	109.7
Lead	0	47	1	45.8	97.4	1	45.6	97.0
Manganese	45	484	45	484.5	100.1	43	488.4	100.9
Mercury								
Zinc	0	1008	1	886.9	88.0	3	871.8	86.5

000166

E.

SPIKED SAMPLE RESULTS SUMMARY

ANALYSIS REPORT

5A

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE #

G07A-MW16B

Lab Name: CHEMTECH CONSULTING GROUP Contract: BEM CORP.

Lab Code: CHEM Case No.: BE1351-07SAS No.: SDG No.: 9692

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	1834.7200		55.9600	B	2000.00	88.9		P
Arsenic	75-125	59.9600		22.4000		40.00	93.9		P
Cadmium	75-125	45.0400		1.0000	U	50.00	90.1		P
Chromium	75-125	181.4400		9.4800	B	200.00	86.0		P
Iron		4884.6100		4002.5300		1000.00	88.2		P
Lead	75-125	31.9100		13.9300		20.00	89.9		P
Manganese	75-125	1790.8200		1367.8600		500.00	84.6		P
Mercury									NR
Zinc	75-125	494.9500		19.1900	B	500.00	95.2		P

Comments:

000168

1

ANALYSIS REPORT

5A

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE #

RAWS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 9807

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	0.9780		0.2000	U	1.00	97.8		CV

Comments:

FORM V (Part 1) - IN ILM03.0

F.

DUPLICATE SAMPLE RESULTS SUMMARY

ANALYSIS REPORT

6

DUPLICATES

CLIENT SAMPLE #

G07A-MW16B

Lab Name: CHEMTECH CONSULTING GROUP Contract: BEM CORP.

Lab Code: CHEM Case No.: BE1351-07SAS No.: SDG No.: 9692

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		55.9600	B	54.2400	B	3.1		P
Arsenic	10.0	22.4000		18.0900		21.3		P
Cadmium		1.0000	U	1.0000	U			P
Chromium		9.4800	B	9.1600	B	3.4		P
Iron		4002.5300		3994.0200		0.2		P
Lead	3.0	13.9300		15.0000		7.4		P
Manganese		1367.8600		1365.1600		0.2		P
Mercury								NR
Zinc		19.1900	B	19.1900	B	0.0		P

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ANALYSIS REPORT

6

DUPLICATES

CLIENT SAMPLE #

RAWD

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 9807

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

FORM VI - IN ILM03.0

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.: 10152

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	985.78	100.8						
Arsenic	50.9	44.10	86.6						
Cadmium	304.8	295.47	96.9						
Chromium	235.5	237.28	100.8						
Iron	992.5	1049.56	105.7						
Lead	2518.4	2503.20	99.4						
Manganese	245.5	245.58	100.0						
Mercury									
Zinc	1506.0	1499.16	99.5						

000174

H.

SERIAL DILUTION RESULTS SUMMARY

ANALYSIS REPORT

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ICP SERIAL DILUTIONS

CLIENT SAMPLE #

G07A-MW16B

Lab Name: CHEMTECH CONSULTING GROUP Contract: BEM CORP.

Lab Code: CHEM Case No.: BE1351-07SAS No.: SDG No.: 9692

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	55.96	B	138.95	B	148.3		P
Arsenic	22.40		20.00	U	100.0		P
Cadmium	1.00	U	5.00	U			P
Chromium	9.48	B	10.00	B	5.5		P
Iron	4002.53		4087.55		2.1		P
Lead	13.93		10.10	B	27.5		P
Manganese	1367.86		1410.10		3.1		P
Mercury							NR
Zinc	19.19	B	30.60	B	59.5		P

000176

GENERAL CHEMISTRY DATA

TEST RESULTS

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62929
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-002
TIME SAMPLED- 1332 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.25	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	17.0	mg/L

LABORATORY DIRECTOR _____

000179

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NYSDOH Certification No. 10624
NJDEP Certification No. 02548

NJDEP Certification No. 15004

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62930
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-007
TIME SAMPLED- 1305 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.15	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	<10.0	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	9.00	mg/L

LABORATORY DIRECTOR _____

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62931
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-FIELD BLANK
TIME SAMPLED- 1253 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.55	STD UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	24.8	mg/L
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	9.00	mg/L

LABORATORY DIRECTOR _____

000181

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62932
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-001
TIME SAMPLED- 1332 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
pH	EPA 150.1	12/18/98		HSP	7.00	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	7.00	mg/L

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000182

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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62933
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-003
TIME SAMPLED- 1322 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	5.00	mg/L

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000183

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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62934
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-004
TIME SAMPLED- 1318 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
CHROMIUM HEXAVALENT	7196-A	12/18/98		BP	<0.0250	mg/L
pH	EPA 150.1	12/18/98		HSP	7.05	STD UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	12/22/98		HSP	2.00	mg/L

LABORATORY DIRECTOR _____

000184

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CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRO CORP.
2300 LINCOLN HIGHWAY EAST
LANGHORNE, PA 19047-
Attn: DAN MORGANELLI

DATE: 12/28/98

PROJECT # 10152 NJ

SAMPLE NUMBER- 62936
DATE SAMPLED- 12/17/98
DATE RECEIVED- 12/18/98
DELIVERED BY- FEDEX

SAMPLE ID- D0-0018-06-006
TIME SAMPLED- 1312 SAMPLER- CLIENT
TIME RECEIVED- 1015
RECEIVED BY- AP SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL ORGANIC CARBON	SW 9060	12/22/98		SPS	12.2	mg/L

LABORATORY DIRECTOR _____

000185

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QC RESULTS

CHEMTECH

LABORATORY REPORT

QC REPORT FOR FOSTER WHEELER ENVIRO CORP. 12/28/98

QA/QC for SAMPLE Nos: 62929, 62930, 62931,

Page 1

		Precision Data				Accuracy Data	Reference Sample Data			
Analyte	LAB ID	Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
CHROMIUM HEXAVALENT	62929	<0.0250	<0.0250	0.000	0.00	100.13	ICV	0.50	0.5016	100.32
7196-A	-------	--------	--------	--------	--------	------	ICB	<0.0250	<0.0250	100.00
mg/L	-------	--------	--------	--------	--------	------	CCV1	0.50	0.5045	100.90
	-------	--------	--------	--------	--------	------	CCB1	<0.0250	<0.0250	100.00
	-------	--------	--------	--------	--------	------	PBW	<0.0250	<0.0250	100.00
	-------	--------	--------	--------	--------	------	CCV2	0.50	0.5143	102.86
	-------	--------	--------	--------	--------	------	CCB2	<0.0250	<0.0250	100.00
pH	62929	7.25	7.30	0.050	0.69	------	STDPH4.00	4.00	4.05	101.25
EPA 150.1	-------	--------	--------	--------	--------	------	STDPH7.00	7.00	7.00	100.00
STD UNITS	-------	--------	--------	--------	--------	------	STDPH10.00	10.00	10.00	100.00
	-------	--------	--------	--------	--------	------	STDPH7.00	7.00	7.00	100.00
TOTAL SUSPENDED	62932	7.00	8.00	1.0	13.33	103.00	BLANK1	<1.0	<1.0	100.00
SOLIDS	63249	41.0	42.0	1.0	2.41	109.00	STD	125	121	96.80
EPA 160.2	-------	--------	--------	--------	--------	------	BLANK2	<1.0	<1.0	100.00
mg/L										

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