N60478.AR.000532
NWS EARLE
5090.3a

BILGE WATER PLANT SOIL SAMPLE RESULTS
NAVAL WEAPONS STATION - EARLE
LEONARDO, NEW JERSEY

Issued:

June 18, 1999

Prepared for:

Naval Facilities Engineering Command
10 Industrial Highway
Lester, PA 19113

Prepared by:

Foster Wheeler Environmental Corporation
2300 Lincoln Highway
One Oxford Valley - Suite 200
Langhorne, PA 19047 - 1829

REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0017

SUMMARY

On June 15, 1999, Foster Wheeler Environmental excavated soils on the eastern side of the Bilge Water Plant at Naval Weapons Station-Earle (NWS-Earle) in order to remove the former piping, and to install new double-walled drainage and pressure piping. The soils in between the eastern side of the Bilge Water Plant and the railroad tracks were excavated down to a depth of four feet below grade in order to remove the former piping, and install new piping. The soils were screened with a FID to determine if the soils were contaminated. Soils with elevated FID readings were segregated from the non-impacted soils for classification, and possible off-site disposal.

The soils excavated from the northeastern corner of the Bilge Water Plant, south to former piping stick-up DI-5, did not exhibit any odors or FID readings, and were segregated with the clean soils. The soils excavated from former piping stick-up DI-5, south to former piping stick-up DI-4, as well as soils from outside the southeastern corner of the Bilge Water Plant exhibited an odor and FID readings ranging from 2 to 220 ppm. The soils exhibiting contamination were staged in a lined roll-off container and on plastic. Both the contaminated soils and the clean soils were sampled in order to determine disposal options. The contaminated soils were analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), metals, full TCLP, and RCRA characteristics. The clean soil was sampled for TPH and volatile organics. Laboratory analyses revealed that the contaminated soil had TPH concentrations ranging from 3,675 mg/kg to 11,534 mg/kg, and some low levels of VOCs. Based on the preliminary laboratory results, the soil would be classified as non-hazardous and recycled off-site. The clean soils exhibited a TPH concentration 0f 52.7 mg/kg. Appendix A contains the preliminary analytical results.

Some contaminated soils were also excavated during the uncovering of the waterline on the eastern side of the railroad tracks. Soils from 0 to 10 feet east of the railroad track exhibited FID readings up to 128 ppm. As the excavation for the water pipe progressed greater than 10 feet from the railroad tracks, the FID readings decreased to 0 to 0.3 ppm with no detectable odors. Since the main focus of this excavation was to repair the water line, the extent of soil contamination in this area was not delineated at this juncture.

Confirmatory soil samples were collected from the areas in which contaminated soil was excavated in order to determine if the remaining soil was above the NJDEP Clean-Up criteria. It should be noted that the areas in which the soils were excavated could not be excavated deeper than the 4 feet without jeopardizing the building foundation and the integrity of the adjacent railroad tracks. The attached figure details the location of the soil samples taken from the excavation. Table 1 is a sample log, and Table 2 presents the TPH concentrations of the confirmatory soil samples. The laboratory analyses of the soil samples collected on the southern portion of the Bilge Water Plant revealed that remaining soils are above the NJDEP Clean-Up Criteria for TPH. The VOC analyses revealed that the VOCs were below the NJDEP Cleanup Criteria. Appendix A contains the preliminary laboratory results, and Appendix B contains the NJDEP Cleanup Criteria.

Table 1:
Naval Weapons Station-Earle
Bilge Water Plant
Soil Excavation Sample Log

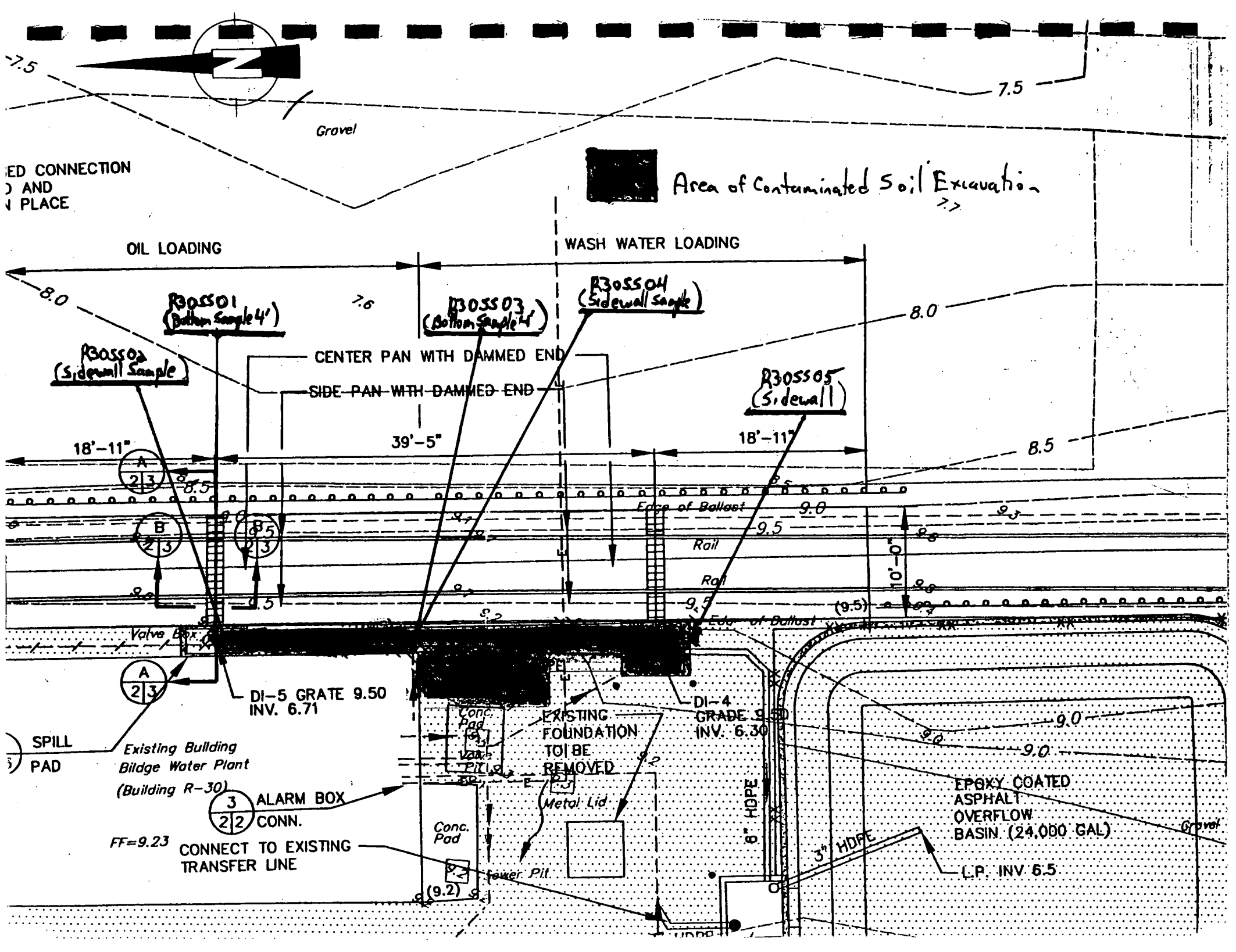
SAMPLE NO.	SAMPLE TYPE	ANALYSES
R30SS01	Confirmatory: Bottom	TPH, VOCs
R30SS02	Confirmatory: Sidewall	TPH, VOCs
R30SS03	Confirmatory: Bottom	TPH, VOCs
R30SS04	Confirmatory: Sidewall	TPH, VOCs
R30SS05	Confirmatory: Sidewall	TPH, VOCs
R30WC01	Waste Classification: Contaminated Soil	TPH, VOCs, metals, PCBs, Full TCLP, RCRA Characteristics
R30WC02	Waste Classification: Contamination Soil	TPH, metals
R30WC03	Waste Classification: Clean Soil	TPH
R30FB01	Field Blank	TPH, VOCs
Trip Blank	Trip Blank	VOCs

Table 2:
Naval Weapons Station-Earle
Bilge Water Plant
Soil Excavation TPH Results

SAMPLE NO.	TPH RESULTS	NJDEP CLEANUP CRITERIA
R30SS01	7,572 mg/kg	10,000 mg/kg
R30SS02	7,818 mg/kg	10,000 mg/kg
R30SS03	12,608 mg/kg	10,000 mg/kg
R30SS04	10,438 mg/kg	10,000 mg/kg
R30SS05	12,239 mg/kg	10,000 mg/kg

CONCLUSION

On Friday June 18, 1999, the in-ground concrete valve pit on the southern side of the Bilge Water Plant was excavated and removed in order to run the new double-walled piping into the building. During the removal of the concrete vault, it was determined that the piping associated with the concrete pit was probably the source of the soil contamination in the area. Piping from the valve pit into the Bilge Water Plant was connected with Fernco fittings, which apparently did not seal the piping sufficiently. Once the concrete associated with the valve pit was removed, the underlying soil was stained black with oily waste. A determination will need to be made on the disposition of the contaminated soil and any additional soil delineation. All the new piping was designed to enter the building at what now appears to be the source area of contaminated soils.


Gravel
ED CONNECTION
) AND
N PLACE
Area of Contaminated Soil Excavation
OIL LOADING
WASH WATER LOADING
R305501 (Bottom Sample 4')
R305503 (Bottom Sample 4')
R305504 (Sidewall Sample)
R305502 (Sidewall Sample)
R305505 (Sidewall)
CENTER PAN WITH DAMMED END
SIDE PAN WITH DAMMED END
18'-11"
39'-5"
18'-11"
Edge of Ballast
Rail
Rail
Edge of Ballast
10'-0"
Valve Box
DI-5 GRATE 9.50
INV. 6.71
SPILL
PAD
Existing Building
Bildge Water Plant
(Building R-30)
ALARM BOX
CONN.
FF=9.23
CONNECT TO EXISTING
TRANSFER LINE
Conc. Pad
Valve Pit
Metal Lid
EXISTING
FOUNDATION
TO BE
REMOVED
DI-4
GRADE 9.50
INV. 6.30
Conc. Pad
Tower Pit
8" HDPE
3" HDPE
EPOXY COATED
ASPHALT
OVERFLOW
BASIN (24,000 GAL)
L.P. INV 6.5
Gravel

APPENDIX A

Please check one:

CHEMTECH

CHAIN OF CUSTODY RECORD

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

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

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Environ.
ADDRESS: One Oxford Valley Suite 200
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Mike Heffron
PHONE: (215) 702-4015 FAX:

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Station Earle
PROJECT NO.: Bilge Water Plant
PROJECT MANAGER: Mike Heffron
LOCATION: Colts Neck NJ
PHONE: FAX:

BILLING INFORMATION

BILL TO: Foster Wheeler PO #: 018775
ADDRESS: One Oxford Valley Suite 200
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Sonya Staden PHONE: 215 702-4000

DATA TURNAROUND INFORMATION

☐ 21 DAYS
☐ 14 DAYS
☐ 7 DAYS
☒ OTHER 48-72 hrs

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 TCL VOCs
2 TPH / % solids
3
4 TCL VOCs
5 TPH
6
7
8
9

COMMENTS

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (Methanol)	2 (E)	3 (E)	4 (HCl/E)	5 (Hexane/E)	6	7	8	9	COMMENTS
1.	R30SS01	Soil		X	6/15/99	9:05	2	X	X	X							
2.	R30SS02					9:10	2	X	X	X							
3.	R30SS03					9:15	2	X	X	X							
4.	R30SS04					9:30	2	X	X	X							
5.	R30SS05					14:35	2	X	X	X							
6.	Trip Blank				6/15/99	-	1	X		X	X	X					
7.	R30FB01	Aq		X	6/15/99	15:00	4										
8.																	

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

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/16/99	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 6/16/99	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 4°C

Comments: Use TPH sample for % solids noted for VOCs

Page ___ of ___ Shipment Complete: Yes ___ No ___

COOLER RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

NO 724922

CHEMTECH Fax:2015671333 Jun 18 1999 12:54 P.02

Please check one:

CHEMTECH

CHAIN OF CUSTODY RECORD

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

South Jersey ☐
515 Route 9 South
Barnegat, NJ 08005
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CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron

PHONE: (215) 702-4015 FAX: (215) 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Station Earle

PROJECT NO.: Bilge Water Plant

PROJECT MANAGER: Mike Heffron

LOCATION: Colts Neck NJ

PHONE:

FAX:

BILLING INFORMATION

BILL TO: Foster Wheeler PO #: 018775

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Sonya Stalter PHONE: 215 702-4088

DATA TURNAROUND INFORMATION

☐ 21 DAYS
☐ 14 DAYS
☐ 7 DAYS
☒ OTHER 48-72 hrs

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 TCLP VOCs
2 TCLP BNAs
3 TCLP Metals
4 PCBs
5 TPH
6 RCRA Charact.
7 TAL Metals
8 TCL VOA
9

PRESERVATIVES

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

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
								E	E	E	E	E	E	E	E		
1.	R30WC01	Soil	–	X	6/15/99	14:00	7	X	X	X	X	X	X	X	X		
2.	R30WC02	Soil		X	6/15/99	14:15	2					X		X			
3.	R30WC03	Soil		X	6/15/99	14:30	1					X					
4.																	
5.																	
6.																	
7.																	
8.																	

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

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
1. [signature]	6/16/99	1.
2.		2.
3.	6/16/99	3. [signature]

RECEIVED FOR LAB BY

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 4°C

Comments:

Page ___ of ___

Shipment Complete: Yes ___ No ___

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

№ 024923

PRELIMINARY RESULTS

METAL ANALYSIS DATA SHEET

EPA SAMPLE NO.

R30WC01

Client: FOSTER WHEELER

Lab Name: CHEMTECH CONSULTING GROUP

Project No.: 12165NJ

SDG No.:

Matrix (soil/water): Soil

Lab Sample ID: 75365

Level (low/med):

Date Received: 06/16/99

% Solids: 80

Analyte	Conc. mg/Kg
Aluminum	2623.13
Antimony	< 0.63
Arsenic	4.21
Barium	7.38
Beryllium	0.20
Cadmium	< 0.13
Calcium	4618.38
Chromium	15.59
Cobalt	1.37
Copper	14.03
Iron	29235.00
Lead	6.20
Magnesium	2521.88
Manganese	34.83
Mercury	< 0.13
Nickel	< 0.13
Potassium	187.15
Selenium	< 0.63
Silver	< 0.25
Sodium	137.30
Thalium	< 0.25
Vanadium	18.06
Zinc	0.00

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

PRELIMINARY RESULTS

TCLP METAL ANALYSIS DATA SHEET

EPA SAMPLE NO.

R30WC01

Client: FOSTER WHEELER

Lab Name: CHEMTECH CONSULTING GROUP

Project No.: 12156NJ

SDG No.:

Matrix (soil/water): WATER

Lab Sample ID: 75365

Date Received: 06/16/99

CAS No.	Analyte	Conc. ug/L
7440-38-2	Arsenic	< 4.00
7440-39-3	Barium	34.21
7440-43-9	Cadmium	< 1.00
7440-47-3	Chromium	< 2.00
7439-92-1	Lead	5.84
7439-97-6	Mercury	< 0.20
7782-49-2	Selenium	< 5.00
7440-22-4	Silver	< 2.00

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

PRELIMINARY RESULTS

METAL ANALYSIS DATA SHEET

EPA SAMPLE NO.

R30WC02

Client: FOSTER WHEELER

Lab Name: CHEMTECH CONSULTING GROUP

Project No.: 12165NJ

SDG No.:

Matrix (soil/water): Soil

Lab Sample ID: 75366

Level (low/med):

Date Received: 06/16/99

% Solids: 92.62

Analyte	Conc. mg/Kg
Aluminum	2024.08
Antimony	< 0.54
Arsenic	2.78
Barium	4.80
Beryllium	0.13
Cadmium	< 0.11
Calcium	365.27
Chromium	8.87
Cobalt	0.78
Copper	7.67
Iron	21227.60
Lead	2.42
Magnesium	204.93
Manganese	21.07
Mercury	< 0.11
Nickel	< 0.11
Potassium	103.50
Selenium	< 0.54
Silver	< 0.22
Sodium	76.86
Thalium	< 0.22
Vanadium	11.34
Zinc	0.00

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75365
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30WC01
TIME SAMPLED- 1400 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
IGNITIBILITY	1010	06/16/99		HCP	>100	Degree C
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	11534	mg/Kg
CORROSIVITY	Y9045	06/16/99		HSP	6.60	pH Unit
SULFIDE-REACTIVITY	9030	06/17/99		SPS	<53.0	mg/kg
CYANIDE-REACTIVITY	9010	06/17/99		SPS	<1.05	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	80.06	%

LABORATORY DIRECTOR _____

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-5868 Fax: (201) 567-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 698-0199 Fax: (609) 698-0910

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75358
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30SS01
TIME SAMPLED- 0905 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	7572	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	81.18	%

LABORATORY DIRECTOR _____

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

515 Route 9
Barnegat, New Jersey 08005
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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75359
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30SS02
TIME SAMPLED- 0910 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	7818	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	85.82	%

LABORATORY DIRECTOR _____

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-8868 Fax: (201) 567-1333

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LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75360
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30SS03
TIME SAMPLED- 0915 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	12608	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	88.82	%

LABORATORY DIRECTOR _____

110 Route 4
Englewood, New Jersey 07631
Phone: (201) 567-6868 Fax: (201) 587-1333

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 698-0199 Fax: (609) 698-0910

CHEMTECH

LABORATORY REPORT

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75361
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30SS04
TIME SAMPLED- 0915 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	10438	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	83.09	%

LABORATORY DIRECTOR _____

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CHEMTECH

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FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75362
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30SS05
TIME SAMPLED- 1435 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	12239	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	84.62	%

LABORATORY DIRECTOR _____

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NJDEP Certification No. 15004

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ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75364
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30FB01
TIME SAMPLED- 1500 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	EPA 418.1	06/17/99		HNP	<10.0	mg/L

LABORATORY DIRECTOR _____

110 Route 4
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SUITE 200
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Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75366
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30WC02
TIME SAMPLED- 1415 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	3675	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	92.62	%

LABORATORY DIRECTOR _____

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ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MIKE HEFFRON

DATE: 06/18/99

PROJECT # 12156 NJ

SAMPLE NUMBER- 75367
DATE SAMPLED- 06/15/99
DATE RECEIVED- 06/16/99
DELIVERED BY- CHEM

SAMPLE ID- R30WC03
TIME SAMPLED- 1430 SAMPLER- CLIENT
TIME RECEIVED- 1000
RECEIVED BY- AD SAMPLE MATRIX- SO

Page 1 of 1

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	418.1	06/17/99		HNP	52.7	mg/Kg
SOLIDS, PERCENT	160.3	06/16/99		VP	94.68	%

LABORATORY DIRECTOR _____

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

515 Route 9
Barnegat, New Jersey 08005
Phone: (609) 698-0189 Fax: (609) 696-0910

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R30WC01

Lab Name: CHEMTECH CONSULTING GRUP. Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: 12156P

Matrix: (soil/water) SOIL Lab Sample ID: 75365

Sample wt/vol: 30.4 (g/ml) G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date received: 06/16/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/99

Concentrated Extract Volume: 10000 (uL) Date analyzed: 06/17/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
12674-11-2------	Aroclor-1016	41	U
11104-28-2------	Aroclor-1221	82	U
11141-16-5------	Aroclor-1232	41	U
53469-21-9------	Aroclor-1242	41	U
12672-29-6------	Aroclor-1248	41	U
11097-69-1------	Aroclor-1254	41	U
11096-82-5------	Aroclor-1260	41	U

Jun 18 1999 9:37 P.02
Fax:2015671333
CHEMTECH

CHEMTECH

CHAIN OF CUSTODY RECORD

North Jersey
110 Route 4
Englewood, NJ 07631
(201) 567-6968 Fax (201) 567-1333

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

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Environ

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron

PHONE: (215) 702-4015 FAX:

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Station Earle

PROJECT NO.: Bilge Water Plant

PROJECT MANAGER: Mike Heffron

LOCATION: Colts Neck NJ

PHONE: FAX:

BILLING INFORMATION

BILL TO: Foster Wheeler PO #: 018775

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Sonya Staten PHONE: 215 702 4000

DATA TURNAROUND INFORMATION

- ☐ 21 DAYS
- ☐ 14 DAYS
- ☐ 7 DAYS
- ☒ OTHER 48-72 hrs

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 TCL VOCs 2 TPH / % solids 3 TCL VOCs 4 TPH 5 6 7 8 9

PRESERVATIVES / **COMMENTS**

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1 Meo/E	2 E	3 E	4 HCl/E	5 HNO3/E	6	7	8	9	COMMENTS
1.	R30SS01	Soil		X	6/15/99	9:05	2	X	X	X							
2.	R30SS02	↓		↓	↓	9:10	2	X	X	X							
3.	R30SS03					9:15	2	X	X	X							
4.	R30SS04					9:30	2	X	X	X							
5.	R30SS05	↓		↓	↓	14:35	2	X	X	X							
6.	Trip Blank	—		—	6/15/99	—	1	X									
7.	R30FB01	AQ		X	6/15/99	15:00	4			X	X	X					
8.																	

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

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	6/16/99	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 6/16/99	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 4°C

Comments: Use TPH sample for % solids needed for VOCs

Page ___ of ___ Shipment Complete: (Yes) No

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

№ 721922

Ver. 3-99

Jun 18 1999 9:38 P.03

Fax:2015671333

CHEMTECH

CHAIN OF CUSTODY RECORD

Please check one:

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

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

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Foster Wheeler Enviro

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Mike Heffron

PHONE: (215) 702-4015 FAX: (215) 702-4045

PROJECT INFORMATION

PROJECT NAME: Naval Weapons Station-Earle

PROJECT NO.: Bilge Water Plant

PROJECT MANAGER: Mike Heffron

LOCATION: Colts Neck NJ

PHONE:

FAX:

BILLING INFORMATION

BILL TO: Foster Wheeler PO #: 018775

ADDRESS: One Oxford Valley Suite 200

CITY: Langhorne STATE: PA ZIP: 19047

ATTENTION: Sonya Slater PHONE: 215 702-4088

DATA TURNAROUND INFORMATION

☐ 21 DAYS
☐ 14 DAYS
☐ 7 DAYS
☒ OTHER 48-72 hrs

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 TCLP VOCs
2 TCLP BNAs
3 TCLP Metals
4 PCBs
5 TPH
6 Reactivity
7 TAL Metals
8 TCL VOA
9

PRESERVATIVES

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1 (E)	2 (E)	3 (E)	4 (E)	5 (E)	6 (E)	7 (E)	8 (E)	9	COMMENTS
1.	R30WC01	Soil		X	6/15/99	14:00	7	X	X	X	X	X	X	X	X		
2.	R30WC02	Soil		X	6/15/99	14:15	2					X		X			
3.	R30WC03	Soil		X	6/15/99	14:30	1					X					
4.																	
5.																	
6.																	
7.																	
8.																	

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

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/16/99	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 6/16/99	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 4°C

Comments:

Page ____ of ____

Shipment Complete: Yes ____ No ____

Ver 3-99

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

№ 024923

CHEMTECH

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: NAVAL WEAPON S Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75358

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6968.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 19 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	250	U
74-87-3	Chloromethane	510	U
75-01-4	Vinyl Chloride	290	U
74-83-9	Bromomethane	580	U
75-00-3	Chloroethane	770	U
107-02-8	Acrolein	770	U
75-69-4	Trichlorofluoromethane	180	U
75-35-4	1,1-Dichloroethene	300	U
67-64-1	Acetone	2300	
75-15-0	Carbon Disulfide	770	U
75-09-2	Methylene Chloride	150	U
156-60-5	trans-1,2-Dichloroethene	650	U
107-13-1	Acrylonitrile	770	U
75-34-4	1,1-Dichloroethane	200	U
590-20-7	2,2-Dichloropropane	150	U
156-60-5	cis-1,2-dichloroethene	270	U
74-97-5	Bromochloromethane	260	U
67-66-3	Chloroform	180	U
71-55-6	1,1,1-Trichloroethane	140	U
108-05-4	Vinyl Acetate	770	U
78-93-3	2-Butanone	770	U
56-23-5	Carbon Tetrachloride	620	U
563-58-6	1,1-Dichloropropene	180	U
71-43-2	Benzene	150	U
107-06-2	1,2-Dichloroethane	150	U
79-01-6	Trichloroethene	400	U
78-87-5	1,2-Dichloropropane	520	U
74-95-3	Dibromomethane	220	U
75-27-4	Bromodichloromethane	150	U
110-07-3	2-Chloroethyl Vinyl Ether	770	U
10061-01-5	cis-1,3-Dichloropropene	150	U
108-88-3	Toluene	190	U
10061-02-6	trans-1,3-Dichloropropene	150	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: NAVAL WEAPON S Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75358

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6968.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 19 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	210	U
108-10-1	4-Methyl-2-Pentanone	770	U
127-18-4	Tetrachloroethene	170	U
142-28-9	1,3-Dichloropropane	190	U
124-48-1	Dibromochloromethane	110	U
106-93-4	1,2-Dibromoethane	250	U
591-78-6	2-Hexanone	770	U
108-90-7	Chlorobenzene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	190	U
100-41-4	Ethylbenzene	580	
1330-20-7	m&p-xylenes	1100	
95-47-6	o-xylene	190	U
100-42-5	Styrene	31	U
75-25-2	Bromoform	77	U
98-82-8	isopropylbenzene	1000	
108-86-1	Bromobenzene	150	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
96-18-4	1,2,3-Trichloropropane	390	U
103-65-1	n-Propylbenzene	990	
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	150	U
108-67-8	1,3,5-Trimethylbenzene	5400	
98-06-6	tert-Butylbenzene	190	U
95-63-6	1,2,4-Trimethylbenzene	14000	
135-98-8	sec-Butylbenzene	3400	
541-73-1	1,3-Dichlorobenzene	190	U
99-87-6	4-Isopropyltoluene	2600	
106-46-7	1,4-Dichlorobenzene	190	U
95-50-1	1,2-Dichlorobenzene	150	U
104-51-8	n-Butylbenzene	260	U
96-12-8	1,2-Dibromo-3-chloropropane	770	U
120-82-1	1,2,4-Trichlorobenzene	190	U
87-68-3	Hexachlorobutadiene	150	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

R30SS01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: NAVAL WEAPON S Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75358

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6968.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 19 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	2500	
87-61-6	1,2,3-Trichlorobenzene	220	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

R30SS01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: NAVAL WEAPON Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75358

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6968.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 19 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 111-84-2	Nonane	22.34	14400	J
2. 611-14-3	Benzene, 1-ethyl-2-methyl-	25.44	15300	J
3. 526-73-8	Benzene, 1,2,3-trimethyl-	27.60	14500	J
4. 1074-43-7	Benzene, 1-methyl-3-propyl-	28.15	27600	J
5. 527-84-4	Benzene, 1-methyl-2-(1-methy	29.06	23600	J
6.	Unknown	29.59	16200	J
7.	Unknown	30.97	15100	J
8.	Unknown	31.36	33000	J
9. 119-64-2	Naphthalene, 1,2,3,4-tetrahy	31.72	14900	J
10. 6682-71-9	1H-Indene, 2,3-dihydro-4,7-d	34.33	19300	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75359

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6969.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 14 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	240	U
74-87-3	Chloromethane	480	U
75-01-4	Vinyl Chloride	270	U
74-83-9	Bromomethane	550	U
75-00-3	Chloroethane	730	U
107-02-8	Acrolein	730	U
75-69-4	Trichlorofluoromethane	170	U
75-35-4	1,1-Dichloroethene	280	U
67-64-1	Acetone	1800	
75-15-0	Carbon Disulfide	730	U
75-09-2	Methylene Chloride	150	U
156-60-5	trans-1,2-Dichloroethene	620	U
107-13-1	Acrylonitrile	730	U
75-34-4	1,1-Dichloroethane	190	U
590-20-7	2,2-Dichloropropane	150	U
156-60-5	cis-1,2-dichloroethene	250	U
74-97-5	Bromochloromethane	250	U
67-66-3	Chloroform	170	U
71-55-6	1,1,1-Trichloroethane	130	U
108-05-4	Vinyl Acetate	730	U
78-93-3	2-Butanone	730	U
56-23-5	Carbon Tetrachloride	580	U
563-58-6	1,1-Dichloropropene	170	U
71-43-2	Benzene	150	U
107-06-2	1,2-Dichloroethane	150	U
79-01-6	Trichloroethene	370	U
78-87-5	1,2-Dichloropropane	490	U
74-95-3	Dibromomethane	210	U
75-27-4	Bromodichloromethane	150	U
110-07-3	2-Chloroethyl Vinyl Ether	730	U
10061-01-5	cis-1,3-Dichloropropene	150	U
108-88-3	Toluene	180	U
10061-02-6	trans-1,3-Dichloropropene	150	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75359

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6969.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 14 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	200	U
108-10-1	4-Methyl-2-Pentanone	730	U
127-18-4	Tetrachloroethene	160	U
142-28-9	1,3-Dichloropropane	170	U
124-48-1	Dibromochloromethane	100	U
106-93-4	1,2-Dibromoethane	230	U
591-78-6	2-Hexanone	730	U
108-90-7	Chlorobenzene	160	U
630-20-6	1,1,1,2-Tetrachloroethane	170	U
100-41-4	Ethylbenzene	160	U
1330-20-7	m&p-xylenes	330	U
95-47-6	o-xylene	170	U
100-42-5	Styrene	29	U
75-25-2	Bromoform	72	U
98-82-8	isopropylbenzene	190	U
108-86-1	Bromobenzene	150	U
79-34-5	1,1,2,2-Tetrachloroethane	230	U
96-18-4	1,2,3-Trichloropropane	360	U
103-65-1	n-Propylbenzene	190	U
95-49-8	2-Chlorotoluene	160	U
106-43-4	4-Chlorotoluene	150	U
108-67-8	1,3,5-Trimethylbenzene	230	U
98-06-6	tert-Butylbenzene	170	U
95-63-6	1,2,4-Trimethylbenzene	230	U
135-98-8	sec-Butylbenzene	170	U
541-73-1	1,3-Dichlorobenzene	170	U
99-87-6	4-Isopropyltoluene	130	U
106-46-7	1,4-Dichlorobenzene	170	U
95-50-1	1,2-Dichlorobenzene	150	U
104-51-8	n-Butylbenzene	250	U
96-12-8	1,2-Dibromo-3-chloropropane	730	U
120-82-1	1,2,4-Trichlorobenzene	170	U
87-68-3	Hexachlorobutadiene	150	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75359

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6969.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 14 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	350	U
87-61-6	1,2,3-Trichlorobenzene	200	U

FORM I VOA 3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
R30SS02

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID. 075359

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6969.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 14 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 2847-72-5	Decane, 4-methyl-	26.40	5300	J
2. 1120-21-4	Undecane	28.63	11300	J
3. 294-62-2	Cyclododecane	30.01	4400	J
4. 20440-21-5	Bicyclo[4.3.1]decan-10-one	30.22	4900	J
5. 112-40-3	Dodecane	31.33	10400	J
6. 17301-23-4	Undecane, 2,6-dimethyl-	31.69	9200	J
7. 5911-04-6	Nonane, 3-methyl-	33.15	8900	J
8. 629-50-5	Tridecane	33.82	11100	J
9. 17312-62-8	Decane, 5-propyl-	35.72	6100	J
10. 629-59-4	Tetradecane	36.23	6900	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS03

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75360

Sample wt/vol: 12.4 (g/mL) G Lab File ID: V6970.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 11 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	230	U
74-87-3	Chloromethane	470	U
75-01-4	Vinyl Chloride	260	U
74-83-9	Bromomethane	530	U
75-00-3	Chloroethane	700	U
107-02-8	Acrolein	700	U
75-69-4	Trichlorofluoromethane	160	U
75-35-4	1,1-Dichloroethene	270	U
67-64-1	Acetone	1300	
75-15-0	Carbon Disulfide	700	U
75-09-2	Methylene Chloride	140	U
156-60-5	trans-1,2-Dichloroethene	590	U
107-13-1	Acrylonitrile	700	U
75-34-4	1,1-Dichloroethane	180	U
590-20-7	2,2-Dichloropropane	140	U
156-60-5	cis-1,2-dichloroethene	240	U
74-97-5	Bromochloromethane	240	U
67-66-3	Chloroform	170	U
71-55-6	1,1,1-Trichloroethane	130	U
108-05-4	Vinyl Acetate	700	U
78-93-3	2-Butanone	700	U
56-23-5	Carbon Tetrachloride	560	U
563-58-6	1,1-Dichloropropene	160	U
71-43-2	Benzene	140	U
107-06-2	1,2-Dichloroethane	140	U
79-01-6	Trichloroethene	360	U
78-87-5	1,2-Dichloropropane	480	U
74-95-3	Dibromomethane	200	U
75-27-4	Bromodichloromethane	140	U
110-07-3	2-Chloroethyl Vinyl Ether	700	U
10061-01-5	cis-1,3-Dichloropropene	140	U
108-88-3	Toluene	170	U
10061-02-6	trans-1,3-Dichloropropene	140	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS03

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: _____ Location: _____ Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: 075360

Sample wt/vol: 12.4 (g/mL) G Lab File ID: V6970.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 11 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	190	U
108-10-1	4-Methyl-2-Pentanone	700	U
127-18-4	Tetrachloroethene	150	U
142-28-9	1,3-Dichloropropane	170	U
124-48-1	Dibromochloromethane	98	U
106-93-4	1,2-Dibromoethane	220	U
591-78-6	2-Hexanone	700	U
108-90-7	Chlorobenzene	150	U
630-20-6	1,1,1,2-Tetrachloroethane	170	U
100-41-4	Ethylbenzene	150	U
1330-20-7	m&p-xylenes	320	U
95-47-6	o-xylene	170	U
100-42-5	Styrene	28	U
75-25-2	Bromoform	70	U
98-82-8	isopropylbenzene	180	U
108-86-1	Bromobenzene	140	U
79-34-5	1,1,2,2-Tetrachloroethane	220	U
96-18-4	1,2,3-Trichloropropane	350	U
103-65-1	n-Propylbenzene	180	U
95-49-8	2-Chlorotoluene	150	U
106-43-4	4-Chlorotoluene	140	U
108-67-8	1,3,5-Trimethylbenzene	820	
98-06-6	tert-Butylbenzene	170	U
95-63-6	1,2,4-Trimethylbenzene	1100	
135-98-8	sec-Butylbenzene	170	U
541-73-1	1,3-Dichlorobenzene	170	U
99-87-6	4-Isopropyltoluene	850	
106-46-7	1,4-Dichlorobenzene	170	U
95-50-1	1,2-Dichlorobenzene	140	U
104-51-8	n-Butylbenzene	240	U
96-12-8	1,2-Dibromo-3-chloropropane	700	U
120-82-1	1,2,4-Trichlorobenzene	170	U
87-68-3	Hexachlorobutadiene	140	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS03

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75360

Sample wt/vol: 12.4 (g/mL) G Lab File ID: V6970.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 11 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
91-20-3	Naphthalene	340	U
87-61-6	1,2,3-Trichlorobenzene	200	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
R30SS03

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75360

Sample wt/vol: 12.4 (g/mL) G Lab File ID: V6970.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 11 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 10

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 15869-94-0	Octane, 3,6-dimethyl-	23.55	6400	J
2. 17301-94-9	Nonane, 4-methyl-	24.49	8000	J
3. 2847-72-5	Decane, 4-methyl-	26.40	5000	J
4. 1120-21-4	Undecane	28.64	15100	J
5. 4176-04-9	Bicyclo[4.1.0]heptan-3-one,	30.22	5800	J
6. 112-40-3	Dodecane	31.32	7300	J
7. 99-87-6	Benzene, 1-methyl-4-(1-methy	31.35	6200	J
8. 17301-23-4	Undecane, 2,6-dimethyl-	31.69	7800	J
9. 17312-53-7	Decane, 3,6-dimethyl-	33.15	5900	J
10. 629-50-5	Tridecane	33.82	12100	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS04

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75361

Sample wt/vol: 10.3 (g/mL) G Lab File ID: V6971.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 17 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	250	U
74-87-3	Chloromethane	500	U
75-01-4	Vinyl Chloride	280	U
74-83-9	Bromomethane	570	U
75-00-3	Chloroethane	750	U
107-02-8	Acrolein	750	U
75-69-4	Trichlorofluoromethane	170	U
75-35-4	1,1-Dichloroethene	290	U
67-64-1	Acetone	1800	
75-15-0	Carbon Disulfide	750	U
75-09-2	Methylene Chloride	150	U
156-60-5	trans-1,2-Dichloroethene	640	U
107-13-1	Acrylonitrile	750	U
75-34-4	1,1-Dichloroethane	200	U
590-20-7	2,2-Dichloropropane	150	U
156-60-5	cis-1,2-dichloroethene	260	U
74-97-5	Bromochloromethane	260	U
67-66-3	Chloroform	180	U
71-55-6	1,1,1-Trichloroethane	130	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
56-23-5	Carbon Tetrachloride	600	U
563-58-6	1,1-Dichloropropene	170	U
71-43-2	Benzene	150	U
107-06-2	1,2-Dichloroethane	150	U
79-01-6	Trichloroethene	390	U
78-87-5	1,2-Dichloropropane	510	U
74-95-3	Dibromomethane	220	U
75-27-4	Bromodichloromethane	150	U
110-07-3	2-Chloroethyl Vinyl Ether	750	U
10061-01-5	cis-1,3-Dichloropropene	150	U
108-88-3	Toluene	190	U
10061-02-6	trans-1,3-Dichloropropene	150	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS04

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75361

Sample wt/vol: 10.3 (g/mL) G Lab File ID: V6971.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 17 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	200	U
108-10-1	4-Methyl-2-Pentanone	750	U
127-18-4	Tetrachloroethene	170	U
142-28-9	1,3-Dichloropropane	180	U
124-48-1	Dibromochloromethane	100	U
106-93-4	1,2-Dibromoethane	240	U
591-78-6	2-Hexanone	750	U
108-90-7	Chlorobenzene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	180	U
100-41-4	Ethylbenzene	170	U
1330-20-7	m&p-xylenes	350	U
95-47-6	o-xylene	180	U
100-42-5	Styrene	30	U
75-25-2	Bromoform	75	U
98-82-8	isopropylbenzene	200	U
108-86-1	Bromobenzene	150	U
79-34-5	1,1,2,2-Tetrachloroethane	240	U
96-18-4	1,2,3-Trichloropropane	380	U
103-65-1	n-Propylbenzene	200	U
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	150	U
108-67-8	1,3,5-Trimethylbenzene	240	U
98-06-6	tert-Butylbenzene	180	U
95-63-6	1,2,4-Trimethylbenzene	240	U
135-98-8	sec-Butylbenzene	180	U
541-73-1	1,3-Dichlorobenzene	180	U
99-87-6	4-Isopropyltoluene	410	
106-46-7	1,4-Dichlorobenzene	180	U
95-50-1	1,2-Dichlorobenzene	150	U
104-51-8	n-Butylbenzene	260	U
96-12-8	1,2-Dibromo-3-chloropropane	750	U
120-82-1	1,2,4-Trichlorobenzene	180	U
87-68-3	Hexachlorobutadiene	150	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS04

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75361

Sample wt/vol: 10.3 (g/mL) G Lab File ID: V6971.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 17 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
91-20-3	Naphthalene	360	U
87-61-6	1,2,3-Trichlorobenzene	210	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

R30SS04

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75361

Sample wt/vol: 10.3 (g/mL) G Lab File ID: V6971.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 17 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 111-84-2	Nonane	22.34	4800	J
2. 19489-10-2	cis-1-Ethyl-3-methyl-cyclohe	22.93	3700	J
3. 3296-50-2	1H-Indene, octahydro-, trans	23.48	4200	J
4. 1678-92-8	Cyclohexane, propyl-	23.74	5600	J
5. 6783-92-2	Cyclohexane, 1,1,2,3-tetrame	24.78	3700	J
6. 124-18-5	Decane	25.68	5400	J
7. 493-02-7	Naphthalene, decahydro-, tra	28.12	3900	J
8. 1120-21-4	Undecane	28.63	6400	J
9. 629-50-5	Tridecane	33.82	5800	J
10. 629-59-4	Tetradecane	36.24	6300	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS05

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75362

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6972.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 15 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	240	U
74-87-3	Chloromethane	490	U
75-01-4	Vinyl Chloride	280	U
74-83-9	Bromomethane	560	U
75-00-3	Chloroethane	740	U
107-02-8	Acrolein	740	U
75-69-4	Trichlorofluoromethane	170	U
75-35-4	1,1-Dichloroethene	280	U
67-64-1	Acetone	1800	
75-15-0	Carbon Disulfide	740	U
75-09-2	Methylene Chloride	150	U
156-60-5	trans-1,2-Dichloroethene	620	U
107-13-1	Acrylonitrile	740	U
75-34-4	1,1-Dichloroethane	190	U
590-20-7	2,2-Dichloropropane	150	U
156-60-5	cis-1,2-dichloroethene	250	U
74-97-5	Bromochloromethane	250	U
67-66-3	Chloroform	170	U
71-55-6	1,1,1-Trichloroethane	130	U
108-05-4	Vinyl Acetate	740	U
78-93-3	2-Butanone	740	U
56-23-5	Carbon Tetrachloride	590	U
563-58-6	1,1-Dichloropropene	170	U
71-43-2	Benzene	150	U
107-06-2	1,2-Dichloroethane	150	U
79-01-6	Trichloroethene	380	U
78-87-5	1,2-Dichloropropane	500	U
74-95-3	Dibromomethane	210	U
75-27-4	Bromodichloromethane	150	U
110-07-3	2-Chloroethyl Vinyl Ether	740	U
10061-01-5	cis-1,3-Dichloropropene	150	U
108-88-3	Toluene	180	U
10061-02-6	trans-1,3-Dichloropropene	150	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS05

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75362

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6972.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 15 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-00-5	1,1,2-Trichloroethane	200	U
108-10-1	4-Methyl-2-Pentanone	740	U
127-18-4	Tetrachloroethene	160	U
142-28-9	1,3-Dichloropropane	180	U
124-48-1	Dibromochloromethane	100	U
106-93-4	1,2-Dibromoethane	240	U
591-78-6	2-Hexanone	740	U
108-90-7	Chlorobenzene	160	U
630-20-6	1,1,1,2-Tetrachloroethane	180	U
100-41-4	Ethylbenzene	160	U
1330-20-7	m&p-xylenes	340	U
95-47-6	o-xylene	180	U
100-42-5	Styrene	29	U
75-25-2	Bromoform	73	U
98-82-8	isopropylbenzene	190	U
108-86-1	Bromobenzene	150	U
79-34-5	1,1,2,2-Tetrachloroethane	240	U
96-18-4	1,2,3-Trichloropropane	370	U
103-65-1	n-Propylbenzene	190	U
95-49-8	2-Chlorotoluene	160	U
106-43-4	4-Chlorotoluene	150	U
108-67-8	1,3,5-Trimethylbenzene	240	U
98-06-6	tert-Butylbenzene	180	U
95-63-6	1,2,4-Trimethylbenzene	240	U
135-98-8	sec-Butylbenzene	180	U
541-73-1	1,3-Dichlorobenzene	180	U
99-87-6	4-Isopropyltoluene	130	U
106-46-7	1,4-Dichlorobenzene	180	U
95-50-1	1,2-Dichlorobenzene	150	U
104-51-8	n-Butylbenzene	250	U
96-12-8	1,2-Dibromo-3-chloropropane	740	U
120-82-1	1,2,4-Trichlorobenzene	180	U
87-68-3	Hexachlorobutadiene	150	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30SS05

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75362

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6972.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 15 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
91-20-3	Naphthalene	350	U
87-61-6	1,2,3-Trichlorobenzene	210	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

R30SS05

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75362

Sample wt/vol: 9.6 (g/mL) G Lab File ID: V6972.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 15 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 2847-72-5	Decane, 4-methyl-	26.39	6400	J
2. 493-02-7	Naphthalene, decahydro-, tra	28.11	5600	J
3. 1120-21-4	Undecane	28.63	11600	J
4. 2958-76-1	Naphthalene, decahydro-2-met	30.22	5100	J
5. 112-40-3	Dodecane	31.33	8900	J
6. 17301-23-4	Undecane, 2,6-dimethyl-	31.69	9100	J
7. 62108-25-2	Decane, 2,6,7-trimethyl-	33.15	7800	J
8. 629-50-5	Tridecane	33.82	9900	J
9. 638-36-8	Hexadecane, 2,6,10,14-tetram	35.72	5800	J
10. 629-59-4	Tetradecane	36.24	7600	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
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Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75363

Sample wt/vol: 0.0 (g/mL) G Lab File ID: V6967.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 0 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	210	U
74-87-3	Chloromethane	420	U
75-01-4	Vinyl Chloride	240	U
74-83-9	Bromomethane	480	U
75-00-3	Chloroethane	630	U
107-02-8	Acrolein	630	U
75-69-4	Trichlorofluoromethane	150	U
75-35-4	1,1-Dichloroethene	240	U
67-64-1	Acetone	630	U
75-15-0	Carbon Disulfide	630	U
75-09-2	Methylene Chloride	130	U
156-60-5	trans-1,2-Dichloroethene	530	U
107-13-1	Acrylonitrile	630	U
75-34-4	1,1-Dichloroethane	160	U
590-20-7	2,2-Dichloropropane	130	U
156-60-5	cis-1,2-dichloroethene	220	U
74-97-5	Bromochloromethane	220	U
67-66-3	Chloroform	150	U
71-55-6	1,1,1-Trichloroethane	110	U
108-05-4	Vinyl Acetate	630	U
78-93-3	2-Butanone	630	U
56-23-5	Carbon Tetrachloride	500	U
563-58-6	1,1-Dichloropropene	140	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	330	U
78-87-5	1,2-Dichloropropane	430	U
74-95-3	Dibromomethane	180	U
75-27-4	Bromodichloromethane	130	U
110-07-3	2-Chloroethyl Vinyl Ether	630	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-88-3	Toluene	160	U
10061-02-6	trans-1,3-Dichloropropene	130	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
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Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75363

Sample wt/vol: 0.0 (g/mL) G Lab File ID: V6967.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 0 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	170	U
108-10-1	4-Methyl-2-Pentanone	630	U
127-18-4	Tetrachloroethene	140	U
142-28-9	1,3-Dichloropropane	150	U
124-48-1	Dibromochloromethane	88	U
106-93-4	1,2-Dibromoethane	200	U
591-78-6	2-Hexanone	630	U
108-90-7	Chlorobenzene	140	U
630-20-6	1,1,1,2-Tetrachloroethane	150	U
100-41-4	Ethylbenzene	140	U
1330-20-7	m&p-xylenes	290	U
95-47-6	o-xylene	150	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	63	U
98-82-8	isopropylbenzene	160	U
108-86-1	Bromobenzene	130	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
96-18-4	1,2,3-Trichloropropane	320	U
103-65-1	n-Propylbenzene	160	U
95-49-8	2-Chlorotoluene	140	U
106-43-4	4-Chlorotoluene	130	U
108-67-8	1,3,5-Trimethylbenzene	200	U
98-06-6	tert-Butylbenzene	150	U
95-63-6	1,2,4-Trimethylbenzene	200	U
135-98-8	sec-Butylbenzene	150	U
541-73-1	1,3-Dichlorobenzene	150	U
99-87-6	4-Isopropyltoluene	110	U
106-46-7	1,4-Dichlorobenzene	150	U
95-50-1	1,2-Dichlorobenzene	130	U
104-51-8	n-Butylbenzene	210	U
96-12-8	1,2-Dibromo-3-chloropropane	630	U
120-82-1	1,2,4-Trichlorobenzene	150	U
87-68-3	Hexachlorobutadiene	130	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
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Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75363

Sample wt/vol: 0.0 (g/mL) G Lab File ID: V6967.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 0 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
91-20-3	Naphthalene	300	U
87-61-6	1,2,3-Trichlorobenzene	180	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

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Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75363

Sample wt/vol: 0.0 (g/mL) G Lab File ID: V6967.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 0 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

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

SAMPLE NO.

R30FB01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) WATER Lab Sample ID: O75364

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V6966.D

Level: (low/med) Date Received: 6/16/99

% Moisture: not dec. 100 Date Analyzed: 6/17/99

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

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

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

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30FB01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) WATER Lab Sample ID: O75364

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V6966.D

Level: (low/med) Date Received: 6/16/99

% Moisture: not dec. 100 Date Analyzed: 6/17/99

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

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

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

CAS No.	Compound		Q
79-00-5	1,1,2-Trichloroethane	0.9	U
108-10-1	4-Methyl-2-Pentanone	5	U
127-18-4	Tetrachloroethene	0.9	U
142-28-9	1,3-Dichloropropane	0.9	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1.2	U
591-78-6	2-Hexanone	5	U
108-90-7	Chlorobenzene	0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	U
100-41-4	Ethylbenzene	0.9	U
1330-20-7	m&p-xylenes	1.3	U
95-47-6	o-xylene	0.9	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	isopropylbenzene	1	U
108-86-1	Bromobenzene	0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
103-65-1	n-Propylbenzene	0.9	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	0.9	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
98-06-6	tert-Butylbenzene	0.7	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
135-98-8	sec-Butylbenzene	0.6	U
541-73-1	1,3-Dichlorobenzene	1	U
99-87-6	4-Isopropyltoluene	0.5	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	0.8	U
104-51-8	n-Butylbenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	U
120-82-1	1,2,4-Trichlorobenzene	0.8	U
87-68-3	Hexachlorobutadiene	1	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30FB01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) WATER Lab Sample ID: O75364

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V6966.D

Level: (low/med) Date Received: 6/16/99

% Moisture: not dec. 100 Date Analyzed: 6/17/99

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
91-20-3	Naphthalene	0.8	U
87-61-6	1,2,3-Trichlorobenzene	0.7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

R30FB01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) WATER Lab Sample ID: O75364

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V6966.D

Level: (low/med) Date Received: 6/16/99

% Moisture: not dec. 100 Date Analyzed: 6/17/99

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

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

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

Number TICs found: 0

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

SAMPLE NO.
R30WC01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75365

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6973.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 20 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	260	U
74-87-3	Chloromethane	520	U
75-01-4	Vinyl Chloride	290	U
74-83-9	Bromomethane	590	U
75-00-3	Chloroethane	780	U
107-02-8	Acrolein	780	U
75-69-4	Trichlorofluoromethane	180	U
75-35-4	1,1-Dichloroethene	300	U
67-64-1	Acetone	780	U
75-15-0	Carbon Disulfide	780	U
75-09-2	Methylene Chloride	160	U
156-60-5	trans-1,2-Dichloroethene	660	U
107-13-1	Acrylonitrile	780	U
75-34-4	1,1-Dichloroethane	200	U
590-20-7	2,2-Dichloropropane	160	U
156-60-5	cis-1,2-dichloroethene	270	U
74-97-5	Bromochloromethane	270	U
67-66-3	Chloroform	180	U
71-55-6	1,1,1-Trichloroethane	140	U
108-05-4	Vinyl Acetate	780	U
78-93-3	2-Butanone	780	U
56-23-5	Carbon Tetrachloride	630	U
563-58-6	1,1-Dichloropropene	180	U
71-43-2	Benzene	160	U
107-06-2	1,2-Dichloroethane	160	U
79-01-6	Trichloroethene	400	U
78-87-5	1,2-Dichloropropane	530	U
74-95-3	Dibromomethane	230	U
75-27-4	Bromodichloromethane	160	U
110-07-3	2-Chloroethyl Vinyl Ether	780	U
10061-01-5	cis-1,3-Dichloropropene	160	U
108-88-3	Toluene	190	U
10061-02-6	trans-1,3-Dichloropropene	160	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30WC01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75365

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6973.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 20 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-00-5	1,1,2-Trichloroethane	210	U
108-10-1	4-Methyl-2-Pentanone	780	U
127-18-4	Tetrachloroethene	170	U
142-28-9	1,3-Dichloropropane	190	U
124-48-1	Dibromochloromethane	110	U
106-93-4	1,2-Dibromoethane	250	U
591-78-6	2-Hexanone	780	U
108-90-7	Chlorobenzene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	190	U
100-41-4	Ethylbenzene	170	U
1330-20-7	m&p-xylenes	360	U
95-47-6	o-xylene	190	U
100-42-5	Styrene	31	U
75-25-2	Bromoform	78	U
98-82-8	isopropylbenzene	200	U
108-86-1	Bromobenzene	160	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
96-18-4	1,2,3-Trichloropropane	390	U
103-65-1	n-Propylbenzene	200	U
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	160	U
108-67-8	1,3,5-Trimethylbenzene	920	
98-06-6	tert-Butylbenzene	190	U
95-63-6	1,2,4-Trimethylbenzene	850	
135-98-8	sec-Butylbenzene	640	
541-73-1	1,3-Dichlorobenzene	190	U
99-87-6	4-Isopropyltoluene	420	
106-46-7	1,4-Dichlorobenzene	190	U
95-50-1	1,2-Dichlorobenzene	160	U
104-51-8	n-Butylbenzene	270	U
96-12-8	1,2-Dibromo-3-chloropropane	780	U
120-82-1	1,2,4-Trichlorobenzene	190	U
87-68-3	Hexachlorobutadiene	160	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
R30WC01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No.: 12156NJ Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75365

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6973.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 20 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS No.	Compound		Q
91-20-3	Naphthalene	380	U
87-61-6	1,2,3-Trichlorobenzene	220	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

R30WC01

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIRONMENTAL

Project No. 1215 Site: Location: Group: R30SS01

Matrix: (soil/water) SOIL Lab Sample ID: O75365

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V6973.D

Level: (low/med) MED Date Received: 6/16/99

% Moisture: not dec. 20 Date Analyzed: 6/17/99

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 10

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 1074-43-7	Benzene, 1-methyl-3-propyl-	28.14	7100	J
2. 1120-21-4	Undecane	28.62	4500	J
3. 6008-81-7	2-Ethyl-2-methyl-1,3-dithiol	29.58	4300	J
4. 767-58-8	Indan, 1-methyl	31.35	9400	J
5. 119-64-2	Naphthalene, 1,2,3,4-tetrahy	31.71	4800	J
6. 530-93-8	2(1H)-Naphthalenone, 3,4-dih	33.13	4100	J
7. 629-50-5	Tridecane	33.82	5500	J
8. 6682-71-9	1H-Indene, 2,3-dihydro-4,7-d	34.33	5700	J
9. 91-57-6	Naphthalene, 2-methyl-	35.78	4100	J
10. 629-59-4	Tetradecane	36.24	5400	J
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REPORT OF CONFIRMATION OF ANALYTICAL BATCH NO. 24830
CONFIRMED BY HCP 06/17/99 TIME 16:38

SAMPLE NUMBER	CLIENT NUMBER	SAMPLE ID	ANALYSIS	RESULT	UNITS	DET. LIMIT	QUAL-IFIER	NEW STAT
75358	1332	R30SS01 ✓	TPH_S	7572	mg/Kg			F
75359	1332	R30SS02 ✓	TPH_S	7818	mg/Kg			F
75360	1332	R30SS03 ✓	TPH_S	12608	mg/Kg			F
75361	1332	R30SS04 ✓	TPH_S	10438	mg/Kg			F
75362	1332	R30SS05 ✓	TPH_S	12239	mg/Kg			F
75365	1332	R30WC01 ✓	TPH_S	11534	mg/Kg			F
75366	1332	R30WC02 ✓	TPH_S	3675	mg/Kg			F
75367	1332	R30WC03 ✓	TPH_S	52.7	mg/Kg			F

REPORT OF CONFIRMATION OF ANALYTICAL BATCH NO. 24831
CONFIRMED BY HCP 06/17/99 TIME 16:40

SAMPLE NUMBER	CLIENT NUMBER	SAMPLE ID	ANALYSIS	RESULT	UNITS	DET. LIMIT	QUAL-IFIER	NEW STAT
75364	1332	R30FB01	TPH	<10.0	mg/L			F

APPENDIX B

SOIL CLEANUP CRITERIA (mg/kg)
(LAST REVISED - 5/12/99)

This listing represents the combination of Tables 3-2 and 7-1 from the Department of Environmental Protection and Energy's February 3, 1992 proposed rule entitled Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D, as corrected based upon errors identified by the Department during or subsequent to the comment period as well as new toxicological or other information obtained since the rule proposal. Please refer to the respective footnotes for more detail. Notwithstanding, where the following criteria are based on human health impacts, the Department shall still consider environmental impacts when establishing site specific cleanup criteria. This along with other site-specific factors including background conditions may result in site specific cleanup criteria which differ from the criteria listed below. Therefore, this list shall not be assumed to represent approval by the Department of any remedial action or to represent the Department's opinion that a site requires remediation.

Note: Material bracketed **[thus]** is deleted and material underlined **thus** is added

Contaminant		CASRN	Residential Direct Contact Soil Cleanup Criteria (a) (b) (RDCSCC)	Non- Residential Direct Contact Soil Cleanup Criteria (a) (b) (NRDCSCC)	Impact to Ground water Soil Cleanup Criteria (b) (IGWSCC)
Acenaphthene		83-32-9	3400	10000(c)	100
Acetone	(2-propanone)	67-64-1	1000(d)	1000(d)	100
Acrylonitrile		107-13-1	1	5	1
Aldrin		309-00-2	0.040	0.17	50
Anthracene		120-12-7	10000(c)	10000(c)	100
Antimony		7440-36-0	14	340	(h)
Arsenic		7440-38-2	20 (e)	20 (e)	(h)
Barium		7440-39-3	700	47000(n)	(h)
Benzene		71-43-2	3	13	1
Benzo(b)fluoranthene	(3,4-Benzofluoranthene)	205-99-2	0.9	4	50
Benzo(a)anthracene	(1,2-Benzanthracene)	56-55-3	0.9	4	500
Benzo(a)pyrene	(BaP)	50-32-8	0.66(f)	0.66(f)	100
Benzo(k)fluoranthene		207-08-9	0.9	4	500
Benzyl Alcohol		100-51-6	10000(c)	10000(c)	50
Beryllium		7440-41-7	[1(f)] 2 (e)	[1(f)] 2 (e)	(h)
Bis(2-chloroethyl) ether		111-44-4	0.66(f)	3	10

SOIL CLEANUP CRITERIA (mg/kg)
(LAST REVISED - 5/12/99)

Contaminant	CASRN	(RDCSCC)	(NRDCSCC)	(IGWSCC)
Bis(2-chloroisopropyl)ether	108-60-1	2300	10000(c)	10
Bis(2-ethylhexyl) phthalate	117-81-7	49	210	100
Bromodichloromethane (Dichlorobromomethane)	75-27-4	11	46	1
Bromoform	75-25-2	86	370	1
Bromomethane (Methyl bromide)	74-83-9	79	1000 (d)	1
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	1000 (d)	1000 (d)	50
Butylbenzyl phthalate	85-68-7	1100	10000 (c)	100
Cadmium	7440-43-9	[1] 39	100	(h)
Carbon tetrachloride	56-23-5	2 (k)	4 (k)	1
4-Chloroaniline (*p*-Chloroaniline)	106-47-8	230	4200	(r)
Chlorobenzene	108-90-7	37	680	1
Chloroform	67-66-3	19 (k)	28 (k)	1
4-Chloro-3-methyl phenol (*p*-Chloro-*m*-cresol)	59-50-7	10000 (c)	10000 (c)	100
Chloromethane (Methyl chloride)	74-87-3	520	1000 (d)	10
2-Chlorophenol (*o*-Chlorophenol)	95-57-8	280	5200	10
Chromium – hexavalent (VI)	18540-29-9	240; 270 (g); (i)	6100; 20 (g); (i)	(h)
Chromium – trivalent (III)	16065-83-1	120,000	(j)	(l)
Chrysene	218-01-9	9	40	500
Copper	7440-50-8	600 (m)	600 (m)	(h)
Cyanide	57-12-5	1100	21000 (o)	(h)
4,4'-DDD (p,p'-TDE)	72-54-8	3	12	50
4,4'-DDE (p,p'-DDX)	72-55-9	2	9	50
4,4'-DDT	50-29-3	2	9	500
Dibenz(a,h)anthracene	53-70-3	0.66 (f)	0.66 (f)	100
Dibromochloromethane (Chlorodibromomethane)	124-48-1	110	1000 (d)	1
Di-n-butyl phthalate	84-74-2	5700	10000 (c)	100
Di-n-octyl phthalate	117-84-0	1100	10000 (c)	100
1,2-Dichlorobenzene (*o*-Dichlorobenzene)	95-50-1	5100	10000 (c)	50
1,3-Dichlorobenzene (*m*-Dichlorobenzene)	541-73-1	5100	10000 (c)	100

SOIL CLEANUP CRITERIA (mg/kg)
(LAST REVISED - 5/12/99)

Contaminant	CASRN	(RDCSCC)	(NRDCSCC)	(IGWSCC)
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	570	10000 (c)	100
3,3'-Dichlorobenzidine	91-94-1	2	6	100
1,1-Dichloroethane	75-34-3	570	1000 (d)	10
1,2-Dichloroethane	107-06-2	6	24	1
1,1-Dichloroethene	75-35-4	8	150	10
1,2-Dichloroethene (trans)	156-60-5	1000 (d)	1000 (d)	50
1,2-Dichloroethene (cis)	156-59-2	79	1000 (d)	1
2,4-Dichlorophenol	120-83-2	170	3100	10
1,2-Dichloropropane	78-87-5	10	43	(r)
1,3-Dichloropropene(cis and trans)	542-75-6	4	5 (k)	1
Dieldrin	60-57-1	0.042	0.18	50
Diethyl phthalate	84-66-2	10000 (c)	10000 (c)	50
2,4-Dimethyl phenol	105-67-9	1100	10000 (c)	10
Dimethyl phthalate	131-11-3	10000 (c)	10000 (c)	50
2,4-Dinitrophenol	51-28-5	110	2100	10
Dinitrotoluene(2,4-/2,6-mixture)	25321-14-6	1 (l)	4 (l)	10 (l)
Endosulfan	115-29-7	340	6200	50
Endrin	72-20-8	17	310	50
Ethylbenzene	100-41-4	1000 (d)	1000 (d)	100
Fluoranthene	206-44-0	2300	10000 (c)	100
Fluorene	86-73-7	2300	10000 (c)	100
Heptachlor	76-44-8	0.15	0.65	50
Hexachlorobenzene	118-74-1	0.66 (f)	2	100
Hexachlorobutadiene	87-68-3	1	21	100
Hexachlorocyclopentadiene	77-47-4	400	7300	100
Hexachloroethane	67-72-1	6	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	0.9	4	500
Isophorone	78-59-1	1100	10000 (c)	50
Lead	7439-92-1	400 (p)	600 (q)	(h)

SOIL CLEANUP CRITERIA (mg/kg)
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Contaminant	CASRN	(RDCSCC)	(NRDCSCC)	(IGWSCC)
Lindane (gamma BHC) (gamma HCH)	58-89-9	0.52	2.2	50
2-Methylphenol (*o*-creosol)	95-48-7	2800	10000 (c)	(r)
4-Methylphenol (*p*-creosol)	106-44-5	2800	10000 (c)	(r)
Methoxychlor	72-43-5	280	5200	50
Mercury	7439-97-6	14	270	(h)
4-Methyl-2-pentanone (MIBK)	108-10-1	1000 (d)	1000 (d)	50
Methylene chloride (Dichloromethane)	75-09-2	49	210	1
Naphthalene	91-20-3	230	4200	100
Nickel	7440-02-0	250	2400 (k) (n)	(h)
Nitrobenzene	98-95-3	28	520	10
N-Nitrosodiphenylamine	86-30-6	140	600	100
N-Nitrosodi-n-propylamine	621-64-7	0.66 (f)	0.66 (f)	10
PCBs (Polychlorinated biphenyls)	1336-36-3	0.49	2	50
Pentachlorophenol	87-86-5	6	24	100
Phenol	108-95-2	10000 (c)	10000 (c)	50
Pyrene	129-00-0	1700	10000 (c)	100
Selenium	7782-49-2	63	3100 (n)	(h)
Silver	7440-22-4	110	4100 (n)	(h)
Styrene	100-42-5	23	97	100
1,1,1,2-Tetrachloroethane	630-20-6	170	310	1
1,1,2,2-Tetrachloroethane	79-34-5	34	70 (k)	1
Tetrachloroethene (Tetrachloroethylene) (PCE)	127-18-4	4 (k)	6 (k)	1
Thallium	7440-28-0	2 (f)	2 (f)	(h)
Toluene	108-88-3	1000 (d)	1000 (d)	500
Toxaphene	8001-35-2	0.10 (k)	0.2 (k)	50
1,2,4-Trichlorobenzene	120-82-1	68	1200	100
1,1,1-Trichloroethane	71-55-6	210	1000 (d)	50
1,1,2-Trichloroethane	79-00-5	22	420	1
Trichloroethene (Trichloroethylene) (TCE)	79-01-6	23	54 (k)	1

SOIL CLEANUP CRITERIA (mg/kg)
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Contaminant	CASRN	(RDCSCC)	(NRDCSCC)	(IGWSCC)
2,4,5-Trichlorophenol	95-95-4	5600	10000 (c)	50
2,4,6-Trichlorophenol	88-06-2	62	270	10
Vanadium	7440-62-2	370	7100 (n)	(h)
Vinyl chloride	75-01-4	2	7	10
Xylenes (Total)	1330-20-7	410	1000 (d)	[10] 67 (s)
Zinc	7440-66-6	1500 (m)	1500 (m)	(h)

Footnotes:

(a) Criteria are health based using an incidental ingestion exposure pathway except where noted below.
(b) Criteria are subject to change based on site specific factors (e.g., aquifer classification, soil type, natural background, environmental impacts, etc.).
(c) Health based criterion exceeds the 10,000 mg/kg maximum for total organic contaminants.
(d) Health based criterion exceeds the 1000 mg/kg maximum for total volatile organic contaminants.
(e) Cleanup standard proposal was based on natural background.
(f) Health based criterion is lower than analytical limits; cleanup criterion based on practical quantitation level.
(g) Criterion based on the inhalation exposure pathway.
(h) The impact to ground water values for inorganic constituents will be developed based upon site specific chemical and physical parameters.
(i) Site specific determination required for SCC for the allergic contact dermatitis exposure pathway.
(j) Contaminant not regulated for this exposure pathway.
(k) Criteria based on inhalation exposure pathway, which yielded a more stringent criterion than the incidental ingestion exposure pathway.
(l) No criterion derived for this contaminant.
(m) Criterion based on ecological (phytotoxicity) effects.
(n) Level of the human health based criterion is such that evaluation for potential environmental impacts on a site by site basis is recommended.
(o) Level of the criterion is such that evaluation for potential acute exposure hazard is recommended.
(p) Criterion based on the USEPA Integrated Exposure Uptake Biokinetic (IEUBK) model utilizing the default parameters. The concentration is considered to protect 95% of target population (children) at a blood lead level of 10 μg/dl.
(q) Criteria were derived from a model developed by the Society for Environmental Geochemistry and Health (SEGH) and were designed to be protective for adults in the workplace.
(r) Insufficient information available to calculate impact to ground water criteria.
(s) Criterion based on new drinking water standard.