FOSTER WHEELER ENVIRONMENTAL CORPORATION

LETTER OF TRANSMITTAL

TO: Commanding Officer
Northern Division
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090

ATTENTION: Code 4022 (Tom Gibison)

DATE: August 25, 1999

RE: Building 42 Hotspot Removal

CONTRACT NUMBER N62472-94-D-0398

WE ARE SENDING YOU [X] ATTACHED [ ] UNDER SEPARATE COVER VIA _____ THE FOLLOWING ITEMS:

[ ] SHOP DRAWINGS [ ] PRINTS [ ] PLANS [X] SAMPLE RESULTS [ ] SPECIFICATIONS

[X] COPY OF LETTER [ ] CHANGE ORDER [ ] _____

COPIES	DATE	DRAWING NO.	REV.	DESCRIPTION	ACTION (*)
1	8/25/99			C013, Building 42 Hotspot Removal, Sample point DPSOIL01	
				DATA	

ACTION (x)

[X] AS REQUESTED [ ] FOR APPROVAL [ ] INFORMATION ONLY

[ ] FILE [ ] REVIEW & COMMENT [ ] _____

COMMENTS:

COPY TO: M Griffen (NAVSTA), R Krivinskas (NORTHDIV)
C Tippmann (FWENC), (J. Shaffer (NORTHDIV))

BY: Jon Cary

If enclosures are not as noted, please notify us at once.

FOSTER WHEELER ENVIRONMENTAL CORPORATION

August 25,1999

Commanding Officer
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090
Attn: Code 4022 (Tom Gibison)

RE: Contract N62472-94-D-00398, D.O. 13, Building 42 Hotspot Removal, Sample Point DPSOIL01, Naval Station Newport

Foster Wheeler Environmental Corporation (Foster Wheeler) completed the removal of soils from within and around Sample Point DPSOIL01 on August 17, 1999. Sample Point DPSOIL01 was the sample location from which a 1600 ppm TPH sample result was detected during exploratory trenching at the northern end of Building 42. This area was believed to have once been a bilge water disposal pit.

Foster Wheeler began soil removal from this area on August 16, 1999. Samples were collected from each sidewall and from the excavation bottom and were analyzed for TPH (EPA Method 8015). The analysis indicated that all samples were below the Rhode Island Residential Direct Exposure Criteria of 150 ppm. The results from these samples ranged from 6.7 ppm to 15 ppm.

Approximately 25 cubic yards of soil was removed and staged on polyethylene sheeting adjacent to the excavation area. From these soils a composite sample was collected and analyzed for VOCs (EPA Method 8260), SVOCs (EPA Method 8270), RCRA 8 Metals (EPA Metod 6010), PCBs (EPA Method 8082), and TPH (EPA Method 8100). The results indicated a TPH level of 26 ppm and an elevated Arsenic level of 18.8 ppm. The Arsenic level is above the Rhode Island Residential Direct Exposure of 1.7 ppm. These soils will be disposed at a Navy approved facility and the excavation will be restored.

Attached for your review is a copy of the analytical. If you have any questions please contact me at (401) 683-5259.

Sincerely,

Jon Cary

Jon Cary
FWENC Superintendent

cc: Melissa Griffen, NAVSTA
Carl Tippmann, FWENC
Robert Krivinskas, NORTHDIV
Jim Shaffer, NORTHDIV

R.I. Analytical

Specialists in Environmental Services

FACSIMILE TRANSMITTAL FORM

TO: Jon Cary

Foster Wheeler

FROM:

DATE: 8/24/99 FAX #: 683-5218

NUMBER OF PAGES:

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COMMENTS:

7639

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Note: This message is intended only for the use of the individual or entity named above, and may contain information that is privileged, confidential, and exempt from disclosure by the applicable law. If you are not the intended recipient this message, please notify us by telephone.

R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

Foster Wheeler
Attn: Mr. Jon Cary
Allen Harbor Landfill
151 Marine Road
North Kingston, RI 02852

Date Received: 8/17/99
Date Reported: 8/24/99
P.O. #: C013
Work Order #: 9908-07639

DESCRIPTION: BUILDING 42-TPH REMOVAL PROJECT# C013

Subject sample(s) has/have been analyzed by our laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies. The specific methodologies are listed in the methods column of the Certificate Of Analysis.

If you have any questions regarding this work, or if we may be of further assistance, please contact us

Approved by:

James E. Mich
Vice President

Michael J. Hobin
Quality Control Coordinator

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I. Analytical

Sample #: 001
SAMPLE DESCRIPTION: EAST SIDE WALL GRAB 8/17/99 @1230

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
TPH GC						
C6-C9	<12	12	mg/kg dry	SW846 8015B	8/22/99 0 39	JRN
C9-C24	8.2	4 0	mg/kg dry	SW846 8015B	8/22/99 0:39	JRN
C24-C36	<20	20	mg/kg dry	SW846 8015B	8/22/99 0.39	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 002
SAMPLE DESCRIPTION: NORTH WALL GRAB 8/17/99 @1245

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
TPH GC							
C6-C9	<12	12	mg/kg dry	SW846 8015B	8/22/99	1 20	JRN
C9-C24	13	4 1	mg/kg dry	SW846 8015B	8/22/99	1 20	JRN
C24-C36	<20	20	mg/kg dry	SW846 8015B	8/22/99	1 20	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I. Analytical

Sample #. 003
SAMPLE DESCRIPTION: BOTTOM GRAB 8/17/99 @1255

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
TPH GC						
C6-C9	<12	12	mg/kg dry	SW846 8015B	8/22/99 2 02	JRN
C9-C24	6.7	4.0	mg/kg dry	SW846 8015B	8/22/99 2.02	JRN
C24-C36	<20	20	mg/kg dry	SW846 8015B	8/22/99 2 02	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by _____
R.I. Analytical

Sample #: 004
SAMPLE DESCRIPTION: SOUTH WALL GRAB 8/17/99 @1300

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
TPH GC						
C6-C9	<13	13	mg/kg dry	SW846 8015B	8/22/99 2:43	JRN
C9-C24	15	4 4	mg/kg dry	SW846 8015B	8/22/99 2 43	JRN
C24-C36	<22	22	mg/kg dry	SW846 8015B	8/22/99 2.43	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 005
SAMPLE DESCRIPTION: WEST SIDE WALL GRAB 8/17/99 @1305

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
TPH GC						
C6-C9	<16	16	mg/kg dry	SW846 8015B	8/22/99 3 25	JRN
C9-C24	10	5 4	mg/kg dry	SW846 8015B	8/22/99 3 25	JRN
C24-C36	<27	27	mg/kg dry	SW846 8015B	8/22/99 3·25	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I. Analytical

Sample #: 006
SAMPLE DESCRIPTION: STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
TPH GC/FID	26	4 0	mg/kg dry	SW846 8100M	8/22/99 4:06	JRN

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I. Analytical

Sample #: 007
SAMPLE DESCRIPTION: STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
PCB						
Arochlor-1016	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1221	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1232	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1242	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1248	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1254	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
Arochlor-1260	<0.1	0.1	mg/kg dry	SW-846 8080	8/23/99 16:30	LGF
SURROGATE			RANGE	SW-846 8080	8/23/99 16:30	LGF
Decachlorobiphenyl	90		60-140%	SW-846 8080	8/23/99 16:30	LGF

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 008
SAMPLE DESCRIPTION: STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
Benzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Bromobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Bromochloromethane	<0.4	0.4	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Bromodichloromethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Bromoform	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Bromomethane	<1.0	1.0	mg/kg	SW-846 8260	8/21/99 0:50	RAM
n-Butylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
sec-Butylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
tert-Butylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Carbon Tetrachloride	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Chlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Chloroethane	<0.5	0.5	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Chloroform	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Chloromethane	<0.5	0.5	mg/kg	SW-846 8260	8/21/99 0:50	RAM
2-Chlorotoluene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
4-Chlorotoluene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Dibromochloromethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2-Dibromo-3-Chloropropane	<0.4	0.4	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2-Dibromoethane(EDB)	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Dibromomethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2-Dichlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,3-Dichlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,4-Dichlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Dichlorodifluoromethane	<0.5	0.5	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,1-Dichloromethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2-Dichloroethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,1-Dichloroethene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
cis-1,2-Dichloroethene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
trans-1,2-Dichloroethene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2-Dichloropropane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,3-Dichloropropane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
2,2-Dichloropropane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,1-Dichloropropene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Ethylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Hexachlorobutadiene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Isopropylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
p-Isopropyltoluene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Methylene Chloride	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received. 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I Analytical

Sample #: 008

STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Naphthalene	<0 2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
n-Propylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
Styrene	<0.2	0 2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,1,1,2-Tetrachloroethane	<0 2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
1,1,2,2-Tetrachloroethane	<0.2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
Tetrachloroethene	<0 2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
Toluene	<0 2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
1,2,3-Trichlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,2,4-Trichlorobenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
1,1,1-Trichloroethane	<0 2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
1,1,2-Trichloroethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
Trichloroethene	<0 2	0 2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
Trichlorofluoromethane	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0.50	RAM
1,2,3-Trichloropropane	<0.2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
1,2,4-Trimethylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
1,3 5-Trimethylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/21/99 0.50	RAM
Vinyl Chloride	<0 2	0 2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
o-Xylene	<0 2	0.2	mg/kg	SW-846 8260	8/21/99 0 50	RAM
m&p-Xylene	<0 2	0 2	mg/kg	SW-846 8260	8/21/99 0:50	RAM
MTBE	<0 4	0 4	mg/kg	SW-846 8260	8/21/99 0.50	RAM
SURROGATES			RANGE	SW-846 8260	8/21/99 0:50	RAM
Dibromofluoromethane	108		80-120%	SW-846 8260	8/21/99 0:50	RAM
Toluene-d8	94		81-117%	SW-846 8260	8/21/99 0 50	RAM
4-Bromofluorobenzene	109		74-121%	SW-846 8260	8/21/99 0:50	RAM
1,2 Dichloroethane-d4	93		80-120%	SW-846 8260	8/21/99 0 50	RAM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 009
SAMPLE DESCRIPTION: STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Acenaphthylene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Anthracene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzidine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzo(a)anthracene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzo(b)fluoranthene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzo(k)fluoranthene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzo(g,h,i)perylene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Benzo(a)pyrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Bis(2-chloroethyl)ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Bis(2-Chloroethoxy)methane	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
bis(2-chloroisopropyl)ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Bis(2-ethylhexyl)phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
4-Bromophenyl phenyl ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Butylbenzyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
2-Chloronaphthalene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
4-Chlorophenyl phenyl ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Chrysene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Dibenzo(a,h)anthracene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
1,2-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
1,3-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
1,4-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
3,3'-Dichlorobenzidine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Diethyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Dimethyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
2,4-Dinitrotoluene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
2,6-Dinitrotoluene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Di-n-octyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
1,2-Diphenylhydrazine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Fluoranthene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Fluorene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Hexachlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Hexachlorobutadiene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Hexachlorocyclopentadiene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Hexachloroethane	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Indeno(1,2,3-cd)pyrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Isophorone	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
Naphthalene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received. 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 009

STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Nitrobenzene	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
N-nitrosodimethylamine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
N-nitrosodiphenylamine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
N-nitrosodi-n-propylamine	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99 15.43	JAH
Phenanthrene	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
Pyrene	0 7	0.4	mg/kg dry	SW-846 8270	8/23/99 15.43	JAH
1,2,4-Trichlorobenzene	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
4-Chloro-3-methylphenol	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
2-Chlorophenol	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
2,4-Dichlorophenol	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
2,4-Dimethylphenol	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
2-Methyl-4.6-dinitrophenol	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
2.4-Dinitrophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
2-Nitrophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
4-Nitrophenol	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
Pentachlorophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99 15.43	JAH
Phenol	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15 43	JAH
2,4,6-Trichlorophenol	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99 15:43	JAH
SURROGATES			RANGE	SW-846 8270	8/23/99 15.43	JAH
Phenol-d5	62		24-113%	SW-846 8270	8/23/99 15.43	JAH
2-Fluorophenol	42		25-121%	SW-846 8270	8/23/99 15 43	JAH
2,4,6-Tribromophenol	89		19-122%	SW-846 8270	8/23/99 15:43	JAH
Nitrobenzene-d5	84		23-120%	SW-846 8270	8/23/99 15 43	JAH
2-Fluorobiphenyl	77		30-115%	SW-846 8270	8/23/99 15 43	JAH
P-Terphenyl-d14	98		18-137%	SW-846 8270	8/23/99 15:43	JAH

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: _____
R.I. Analytical

Sample #: 010
SAMPLE DESCRIPTION: STOCKPILE COMPOSITE 8/17/99

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
TOTAL METALS							
ARSENIC	18.8	5 95	mg/kg dry	SW-846 6010	8/18/99	14.35	RGM
BARIUM	11 9	0.30	mg/kg dry	SW-846 6010	8/18/99	14:35	RGM
CADMIUM	2.14	0 30	mg/kg dry	SW-846 6010	8/18/99	14 35	RGM
CHROMIUM	17.6	1 78	mg/kg dry	SW-846 6010	8/18/99	14:35	RGM
LEAD	17.8	2.38	mg/kg dry	SW-846 6010	8/18/99	14:35	RGM
MERCURY	<0.25	0.25	mg/kg dry	SW-846 7471A	8/20/99	10:13	RJC
SELENIUM	<11.9	11.9	mg/kg dry	SW-846 6010	8/18/99	14.35	RGM
SILVER	<1.19	1 19	mg/kg dry	SW-846 6010	8/18/99	14 35	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #. 011
SAMPLE DESCRIPTION: PREP BLANK

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
TPH GC/FID	<4 0	4 0	mg/kg dry	SW846 8100M	8/21/99	18·26	JRN
TPH GC							
C6-C9	<12	12	mg/kg dry	SW846 8015B	8/21/99	18·26	JRN
C9-C24	<4.0	4.0	mg/kg dry	SW846 8015B	8/21/99	18 26	JRN
C24-C36	<20	20	mg/kg dry	SW846 8015B	8/21/99	18 26	JRN
Volatile Organic Compounds							
Benzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Bromobenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18.04	RAM
Bromochloromethane	<0 4	0.4	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Bromodichloromethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Bromoform	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Bromomethane	<1 0	1.0	mg/kg	SW-846 8260	8/23/99	18:04	RAM
n-Butylbenzene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
sec-Butylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
tert-Butylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Carbon Tetrachloride	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Chlorobenzene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Chloroethane	<0 5	0.5	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Chloroform	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Chloromethane	<0 5	0.5	mg/kg	SW-846 8260	8/23/99	18.04	RAM
2-Chlorotoluene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
4-Chlorotoluene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18.04	RAM
Dibromochloromethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,2-Dibromo-3-Chloropropane	<0.4	0.4	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,2-Dibromoethane(EDB)	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Dibromomethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18·04	RAM
1,2-Dichlorobenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
1,3-Dichlorobenzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1 4-Dichlorobenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Dichlorodifluoromethane	<0.5	0 5	mg/kg	SW-846 8260	8/23/99	18:04	RAM
1,1-Dichloroethane	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,2-Dichloroethane	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,1-Dichloroethene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
cis-1,2-Dichloroethene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18·04	RAM
trans-1,2-Dichloroethene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,2-Dichloropropane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,3-Dichloropropane	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
2,2-Dichloropropane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 011

PREP BLANK

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
1,1-Dichloropropene	<0.2	0.2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Ethylbenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Hexachlorobutadiene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18.04	RAM
Isopropylbenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
p-Isopropyltoluene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Methylene Chloride	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Naphthalene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
n-Propylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Styrene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,1,1,2-Tetrachloroethane	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
1,1,2,2-Tetrachloroethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Tetrachloroethene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Toluene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1 2,3-Trichlorobenzene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,2,4-Trichlorobenzene	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18.04	RAM
1,1,1-Trichloroethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,1,2-Trichloroethane	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Trichloroethene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
Trichlorofluoromethane	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
1,2,3-Trichloropropane	<0 2	0.2	mg/kg	SW-846 8260	8/23/99	18.04	RAM
1,2,4-Trimethylbenzene	<0.2	0.2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
1,3,5-Trimethylbenzene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
Vinyl Chloride	<0.2	0.2	mg/kg	SW-846 8260	8/23/99	18:04	RAM
o-Xylene	<0 2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
m&p-Xylene	<0.2	0 2	mg/kg	SW-846 8260	8/23/99	18 04	RAM
MTBE	<0 4	0.4	mg/kg	SW-846 8260	8/23/99	18:04	RAM
SURROGATES			RANGE	SW-846 8260	8/23/99	18 04	RAM
Dibromofluoromethane	105		80-120%	SW-846 8260	8/23/99	18 04	RAM
Toluene-d8	108		81-117%	SW-846 8260	8/23/99	18:04	RAM
4-Bromofluorobenzene	110		74-121%	SW-846 8260	8/23/99	18 04	RAM
1,2 Dichloroethane-d4	88		80-120%	SW-846 8260	8/23/99	18 04	RAM
SEMI-VOLATILE ORGANIC COMPOUNDS							
Acenaphthene	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
Acenaphthylene	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
Anthracene	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
Benzidine	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Benzo(a)anthracene	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Benzo(b)fluoranthene	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Benzo(k)fluoranthene	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 011

PREP BLANK

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
Benzo(g,h,i)perylene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Benzo(a)pyrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Bis(2-chloroethyl)ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Bis(2-Chloroethoxy)methane	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
bis(2-chloroisopropyl)ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Bis(2-ethylhexyl)phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
4-Bromophenyl phenyl ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Butylbenzyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
2-Chloronaphthalene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
4-Chlorophenyl phenyl ether	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Chrysene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Dibenzo(a,h)anthracene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
1,2-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
1,3-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
1,4-Dichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
3,3'-Dichlorobenzidine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Diethyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Dimethyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
2,4-Dinitrotoluene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
2,6-Dinitrotoluene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Di-n-octyl phthalate	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
1,2-Diphenylhydrazine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Fluoranthene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Fluorene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Hexachlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Hexachlorobutadiene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Hexachlorocyclopentadiene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Hexachloroethane	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Indeno(1,2,3-cd)pyrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Isophorone	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Naphthalene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Nitrobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
N-nitrosodimethylamine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
N-nitrosodiphenylamine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
N-nitrosodi-n-propylamine	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Phenanthrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
Pyrene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
1,2,4-Trichlorobenzene	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
4-Chloro-3-methylphenol	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
2-Chlorophenol	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Foster Wheeler
Date Received: 8/17/99
Work Order # 9908-07639

Approved by: R.I. Analytical

Sample #: 011

PREP BLANK

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME		ANALYST
2,4-Dichlorophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13:01	JAH
2,4-Dimethylphenol	<0.4	0.4	mg/kg dry	SW-846 8270	8/23/99	13.01	JAH
2-Methyl-4,6-dinitrophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
2,4-Dinitrophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
2-Nitrophenol	<0 4	0.4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
4-Nitrophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13.01	JAH
Pentachlorophenol	<0.4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
Phenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
2,4,6-Trichlorophenol	<0 4	0 4	mg/kg dry	SW-846 8270	8/23/99	13 01	JAH
SURROGATES			RANGE	SW-846 8270	8/23/99	13.01	JAH
Phenol-d5	37		24-113%	SW-846 8270	8/23/99	13 01	JAH
2-Fluorophenol	28		25-121%	SW-846 8270	8/23/99	13 01	JAH
2,4,6-Tribromophenol	26		19-122%	SW-846 8270	8/23/99	13 01	JAH
Nitrobenzene-d5	46		23-120%	SW-846 8270	8/23/99	13 01	JAH
2-Fluorobiphenyl	38		30-115%	SW-846 8270	8/23/99	13 01	JAH
P-Terphenyl-d14	65		18-137%	SW-846 8270	8/23/99	13 01	JAH
TOTAL METALS							
ARSENIC	<5	5	mg/kg dry	SW-846 6010	8/18/99	14:22	RGM
BARIUM	<0 3	0 3	mg/kg dry	SW-846 6010	8/18/99	14 22	RGM
CADMIUM	<0 3	0 3	mg/kg dry	SW-846 6010	8/18/99	14:22	RGM
CHROMIUM	<2	2	mg/kg dry	SW-846 6010	8/18/99	14.22	RGM
LEAD	<2	2	mg/kg dry	SW-846 6010	8/18/99	14 22	RGM
MERCURY	<0 25	0 25	mg/kg dry	SW-846 7471A	8/20/99	10 13	RJC
SELENIUM	<10	10	mg/kg dry	SW-846 6010	8/18/99	14:22	RGM
SILVER	<1	1	mg/kg dry	SW-846 6010	8/18/99	14 22	RGM

White Copy Original (Accompanies Samples) Yellow Copy – Collector Pink Copy – Customer's Copy

08/24/99 14:14 FAX 401 735 1970 R.I. Analytical

R.I. Analytical Laboratories, Inc.

41 Illinois Avenue
Warwick, RI 02888
Phone (401) 737-8500
Fax (401) 738-1970

950 Boylston Street, Unit 102
Newton Highlands MA 02461
Phone: (617) 965-5133
Fax: (617) 965-5624

CHAIN OF CUSTODY RECORD

Page 1 of 1

Container Type Codes:	Preservative Codes:		Matrix Codes:	
P=Plastic AG=Amber Glass	NP=Non preserved	S=Sulfuric	GW=Groundwater	S=Soil
G=Glass St=Sterile	I=Cooled 4°C	H=HCL	WW=Wastewater	Sl=Sludge
V=Vial	N=Nitric	SH=NaOH	DW=Drinking water	A=Air
O=Other (describe)	M=Methanol	SB=NaHSO4	O=Other (describe)	B=Bulk/Solid

Date Collected	Time Collected	Sample ID	G=Grab C=Comp.	Containers # + (code)	Preservative (code)	Matrix (code)	Analysis Request 8015
8/17/99	1230	East side wall	G	1 AG	I	S	TPH 8015
8/17/99	1245	North Wall	G	1 AG	↓	↓	↓
8/17/99	1255	Bottom	G	1 AG	↓	↓	↓
8/17/99	1300	South wall	G	1 AG	↓	↓	↓
8/17/99	1305	West Side wall	G	1 AG	I	S	TPH 8015
8/17/99	1310	stockpile	C				VOC 8260 / SVOC 8270 / RCRA 8 / PCB / 8100

Client Information

Company Name: Foster Wheeler / Bill to:
Address: 195 Burma Rd / 151 Marine Rd
City / State / Zip: Portsmouth RI 02871 / N. Kingstown RI 02852
Phone: 683-5259 Fax: 683-5218
Contact: Jon Cary

Project Information

Project Name / Location: Building 42 - TPH Removal
P.O. Number / Project Number: C013
Project Manager / Report To: Jon Cary
Sampled by:
Reference Proposal:

Relinquished by:	Date	Time	Received by:	Date	Time
Tricia Hancock	8/17/99	15:45	[illegible]	8/17/99	15:45
			[illegible]	8/17/99	1530

Turn Around Time:
- ☐ Normal
- ☒ 5 business days Surcharges may apply
- ☐ Rush _____ (business days)

Project Comments:

RIAL USE ONLY.
- ☐ Pick-Up Only
- ☐ RIAL Sampled 7639
- ☐ Shipped on Ice
- RIAL W.O. # 7638