

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
OFFICE OF ENVIRONMENTAL MEASUREMENT & EVALUATION  
NORTH CHELMSFORD, MASSACHUSETTS 01863-2431

MEMORANDUM

DATE: July 9, 2004

SUBJECT: Fisherville Mill, Grafton, MA - Volatile Organics Analysis of Aqueous Samples

FROM: Dan Boudreau, Chemist

*DB*  
*7/15/04*

TO: Janis Tsang, HBR

THRU: *WJA 7/15/04*  
Dr. William J. Andrade, Advanced Analytical Chemistry Expert

PROJECT NUMBER: 04060044

DATE OF ANALYSIS: 07/07/04

ANALYTICAL PROCEDURE:

Aqueous samples were analyzed using Region I's Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous and Soil Samples (EIA-FLDVOA2.SOP). Aqueous samples were collected in 40 ml vials and were analyzed using a Shimadzu GC 14A gas chromatograph (GC) equipped with a 30 meter, 0.53 mm RTX-624 column with photo ionization and electron capture detectors. Concentrations of volatile organics were calculated using the external standard technique.

### Target Compounds and Approximate Reporting Limits

Fisherville Mill, Grafton, MA - Aqueous Volatile Organic Target Compounds & Reporting Limits	
Compound	Reporting Limit (ug/l)
Trichloroethylene (TCE)	0.5
Tetrachloroethylene (C <sub>2</sub> Cl <sub>4</sub> )	0.5
cis 1,2-Dichloroethylene (cis 12 DCEE)	1.0
1,1,1-Trichloroethane (111 TCA)	0.5

**Results:** The results in tables are Tentatively Identified Compounds and Approximate Concentrations

**ND ( ) =** Nothing detected above reporting limit. Reporting limit in parenthesis.

**Note:** Results are in ug/l (ppb)





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MEMORANDUM

DATE: July 9, 2004

SUBJECT: Fisherville Mill, Grafton, MA - Volatile Organics Analysis of Aqueous Samples

FROM: Dan Boudreau, Chemist

TO: Janis Tsang, HBR

THRU: *WJA 7/14/4*  
Dr. William J. Andrade, Advanced Analytical Chemistry Expert

PROJECT NUMBER: 04060043

DATE OF ANALYSIS: 07/01/04 - 07/07/04

ANALYTICAL PROCEDURE:

Aqueous samples were analyzed using Region I's Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous and Soil Samples (EIA-FLDVOA2.SOP). Aqueous samples were collected in 40 ml vials and were analyzed using a Shimadzu GC 14A gas chromatograph (GC) equipped with a 30 meter, 0.53 mm RTX-624 column with photo ionization and electron capture detectors. Concentrations of volatile organics were calculated using the external standard technique.

### Target Compounds and Approximate Reporting Limits

Fisherville Mill, Grafton, MA - Aqueous Volatile Organic Target Compounds & Reporting Limits	
Compound	Reporting Limit (ug/l)
Trichloroethylene (TCE)	0.5
Tetrachloroethylene (C <sub>2</sub> Cl <sub>4</sub> )	0.5
cis 1,2-Dichloroethylene (cis 12 DCEE)	1.0
1,1,1-Trichloroethane (111 TCA)	0.5

**Results:** The results in tables are Tentatively Identified Compounds and Approximate Concentrations

ND ( ) = Nothing detected above reporting limit. Reporting limit in parenthesis.

**Note:** Results are in ug/l (ppb)

Fisherville Mill, Grafton, MA - Aqueous VOA Results ug/l (ppb)	
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
13	0.00
14	0.00
15	0.00
16	0.00
17	0.00
18	0.00
19	0.00
20	0.00
21	0.00
22	0.00
23	0.00
24	0.00
25	0.00
26	0.00
27	0.00
28	0.00
29	0.00
30	0.00
31	0.00
32	0.00
33	0.00
34	0.00
35	0.00
36	0.00
37	0.00
38	0.00
39	0.00
40	0.00
41	0.00
42	0.00
43	0.00
44	0.00
45	0.00
46	0.00
47	0.00
48	0.00
49	0.00
50	0.00
51	0.00
52	0.00
53	0.00
54	0.00
55	0.00
56	0.00
57	0.00
58	0.00
59	0.00
60	0.00
61	0.00
62	0.00
63	0.00
64	0.00
65	0.00
66	0.00
67	0.00
68	0.00
69	0.00
70	0.00
71	0.00
72	0.00
73	0.00
74	0.00
75	0.00
76	0.00
77	0.00
78	0.00
79	0.00
80	0.00
81	0.00
82	0.00
83	0.00
84	0.00
85	0.00
86	0.00
87	0.00
88	0.00
89	0.00
90	0.00
91	0.00
92	0.00
93	0.00
94	0.00
95	0.00
96	0.00
97	0.00
98	0.00
99	0.00
100	0.00

	07/01/04 - 07/07/04
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U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
OFFICE OF ENVIRONMENTAL MEASUREMENT & EVALUATION  
NORTH CHELMSFORD, MASSACHUSETTS 01863-2431

MEMORANDUM

DATE: July 9, 2004

SUBJECT: Fisherville Mill, Grafton, MA - Volatile Organics Analysis of Aqueous Samples

FROM: Dan Boudreau, Chemist

TO: Janis Tsang, HBR

THRU: Dr. William J. Andrade <sup>WJA 7/15/04</sup> Advanced Analytical Chemistry Expert

PROJECT NUMBER: 04060045

DATE OF ANALYSIS: 07/08/04

ANALYTICAL PROCEDURE:

Aqueous samples were analyzed using Region I's Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous and Soil Samples (EIA-FLDVOA2.SOP). Aqueous samples were collected in 40 ml vials and were analyzed using a Shimadzu GC 14A gas chromatograph (GC) equipped with a 30 meter, 0.53 mm RTX-624 column with photo ionization and electron capture detectors. Concentrations of volatile organics were calculated using the external standard technique.

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### Target Compounds and Approximate Reporting Limits

Fisherville Mill, Grafton, MA - Aqueous Volatile Organic Target Compounds & Reporting Limits	
Compound	Reporting Limit (ug/l)
Trichloroethylene (TCE)	0.5
Tetrachloroethylene (C <sub>2</sub> Cl <sub>4</sub> )	0.5
cis 1,2-Dichloroethylene (cis 12 DCEE)	1.0
1,1,1-Trichloroethane (111 TCA)	0.5

**Results:** The results in tables are Tentatively Identified Compounds and Approximate Concentrations

**ND ( ) =** Nothing detected above reporting limit. Reporting limit in parenthesis.

**Note:** Results are in ug/l (ppb)

[illegible]

07/08/04

[illegible]



U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
OFFICE OF ENVIRONMENTAL MEASUREMENT & EVALUATION  
NORTH CHELMSFORD, MASSACHUSETTS 01863-2431

MEMORANDUM

DATE: July 9, 2004

SUBJECT: Fisherville Mill, Grafton, MA - Volatile Organics Analysis of Aqueous Samples

FROM: Dan Boudreau, Chemist *DB 7/15/04*

TO: Janis Tsang, HBR

THRU: *WJA 7/15/04*  
Dr. William J. Andrade, Advanced Analytical Chemistry Expert

PROJECT NUMBER: 04060041

DATE OF ANALYSIS: 06/30/04 - 07/01/04

ANALYTICAL PROCEDURE:

Aqueous samples were analyzed using Region I's Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous and Soil Samples (EIA-FLDVOA2.SOP). Aqueous samples were collected in 40 ml vials and were analyzed using a Shimadzu GC 14A gas chromatograph (GC) equipped with a 30 meter, 0.53 mm RTX-624 column with photo ionization and electron capture detectors. Concentrations of volatile organics were calculated using the external standard technique.

### Target Compounds and Approximate Reporting Limits

Fisherville Mill, Grafton, MA - Aqueous Volatile Organic Target Compounds & Reporting Limits	
Compound	Reporting Limit (ug/l)
Trichloroethylene (TCE)	0.5
Tetrachloroethylene (C <sub>2</sub> Cl <sub>4</sub> )	0.5
cis 1,2-Dichloroethylene (cis 12 DCEE)	1.0
1,1,1-Trichloroethane (111 TCA)	0.5

**Results:** The results in tables are Tentatively Identified Compounds and Approximate Concentrations

**ND ( ) =** Nothing detected above reporting limit. Reporting limit in parenthesis.

**Note:** Results are in ug/l (ppb)

Fisherville Mill, Grafton, MA - Aqueous VOA Results ug/l (ppb)	
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
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56	56
57	57
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62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

06/30/04 - 07/01/04

[illegible]







United States Environmental Protection Agency  
Office of Environmental Measurement & Evaluation  
11 Technology Drive  
North Chelmsford, MA 01863-2431

Laboratory Report

July 01, 2004

Mrs Janis Tsang - HBR  
USEPA New England, Region 1  
One Congress Street  
Boston, MA 02114 - 2023

Project Number: 04060041  
Project: Fisherville Mill - Grafton, MA  
Analysis: VOAs in Water  
Analyst: Dan Boudreau *DB*  
*7/1/04*

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, ELASOP-VOAGCMS7.

Samples were analyzed by GC/MS. Samples were introduced to the GC via a Tekmar pre-concentrator and an Archon autosampler. The analysis SOP is based on US EPA Method 8260B, SW-846, Rev 2.0, 1996. Method 624, 40CFR Part 136 Appendix A, July 1, 1992, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Date Samples Received by the Laboratory: 6/29/04

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8333.

Sincerely,

Dr. William J. Andrade  
Advanced Analytical Chemistry Specialist

RL = Reporting limit

ND = Not Detected above Reporting limit

NA = Not Applicable due to high sample dilutions or sample interferences

NC = Not calculated since analyte concentration is ND.

J = Estimated value

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 5 times the concentration in the blank.

R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

**Fisherville Mill - Grafton, MA**

**VOAs in Water**

Client Sample ID: D15520  
Date of Collection: 6/28/2004  
Date of Extraction: 6/30/04  
Date of Analysis: 6/30/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41574  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 5  
pH: <2

<b>CAS Number</b>	<b>Compound</b>	<b>Concentration ug/L</b>	<b>RL ug/L</b>	<b>Qualifier</b>
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	
71-55-6	1,1,1-Trichloroethane	ND	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	5.0	
79-00-5	1,1,2-Trichloroethane	ND	5.0	
75-35-4	1,1-Dichloroethylene	ND	5.0	
563-58-6	1,1-Dichloropropene	ND	5.0	
75-34-3	1,1-dichloroethane	ND	5.0	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	
96-18-4	1,2,3-Trichloropropane	ND	5.0	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	5.0	
106-93-4	1,2-Dibromoethane	ND	5.0	
95-50-1	1,2-Dichlorobenzene	ND	5.0	
107-06-2	1,2-Dichloroethane	ND	5.0	
78-87-5	1,2-Dichloropropane	ND	5.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	
541-73-1	1,3-Dichlorobenzene	ND	5.0	
142-28-9	1,3-Dichloropropane	ND	5.0	
106-46-7	1,4-Dichlorobenzene	ND	5.0	
594-20-7	2,2-Dichloropropane	ND	5.0	
78-93-3	2-Butanone (MEK)	ND	5.0	
95-49-8	2-Chlorotoluene	ND	5.0	
591-78-6	2-Hexanone	ND	5.0	
67-64-1	2-Propanone (acetone)	ND	5.0	
106-43-4	4-Chlorotoluene	ND	5.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	5.0	
107-13-1	Acrylonitrile	ND	5.0	
71-43-2	Benzene	ND	5.0	
108-86-1	Bromobenzene	ND	5.0	
74-97-5	Bromochloromethane	ND	5.0	
75-27-4	Bromodichloromethane	ND	5.0	
75-25-2	Bromoform	ND	5.0	
74-83-9	Bromomethane	ND	5.0	
75-15-0	Carbon Disulfide	ND	5.0	
56-23-5	Carbon tetrachloride	ND	5.0	
108-90-7	Chlorobenzene	ND	5.0	
75-00-3	Chloroethane	ND	5.0	
67-66-3	Chloroform	ND	5.0	

124-48-1	Dibromochloromethane	ND	5.0
74-95-3	Dibromomethane	ND	5.0
75-71-8	Dichlorodifluoromethane	ND	5.0
60-29-7	Ethyl Ether	ND	5.0
100-41-4	Ethylbenzene	ND	5.0
87-68-3	Hexachlorobutadiene	ND	5.0
98-82-8	Isopropylbenzene	ND	5.0
108-38-3/106-42-	M/P Xylene	ND	10
1634-04-4	Methyl-t-Butyl Ether	ND	5.0
75-09-2	Methylene Chloride	ND	5.0
104-51-8	N-Butylbenzene	ND	5.0
103-65-1	N-Propylbenzene	ND	5.0
91-20-3	Naphthalene	ND	5.0
95-47-6	Ortho Xylene	ND	5.0
99-87-6	Para-Isopropyltoluene	ND	5.0
135-98-8	Sec-Butylbenzene	ND	5.0
100-42-5	Styrene	ND	5.0
98-06-6	Tert-Butylbenzene	ND	5.0
127-18-4	Tetrachloroethylene	ND	5.0
109-99-9	Tetrahydrofuran	ND	5.0
108-88-3	Toluene	ND	5.0
156-60-5	Trans-1,2-Dichloroethylene	ND	5.0
79-01-6	Trichloroethylene	37	5.0
75-69-4	Trichlorofluoromethane	ND	5.0
108-05-4	Vinyl Acetate	ND	5.0
75-01-4	Vinyl Chloride	12	5.0
10061-01-5	c-1,3-dichloropropene	ND	5.0
156-59-2	cis-1,2-Dichloroethylene	190	5.0
10061-02-6	t-1,3-Dichloropropene	ND	5.0

#### Surrogate Compounds

	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	130	81 - 153
Toluene-D8	112	83 - 118
1,4-Bromofluorobenzene	98	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15660  
Date of Collection: 6/28/2004  
Date of Extraction: 6/30/04  
Date of Analysis: 6/30/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41582  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 25  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	
71-55-6	1,1,1-Trichloroethane	ND	25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	25	
79-00-5	1,1,2-Trichloroethane	ND	25	
75-35-4	1,1-Dichloroethylene	ND	25	
563-58-6	1,1-Dichloropropene	ND	25	
75-34-3	1,1-dichloroethane	ND	25	
87-61-6	1,2,3-Trichlorobenzene	ND	25	
96-18-4	1,2,3-Trichloropropane	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
95-63-6	1,2,4-Trimethylbenzene	ND	25	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	25	
106-93-4	1,2-Dibromoethane	ND	25	
95-50-1	1,2-Dichlorobenzene	ND	25	
107-06-2	1,2-Dichloroethane	ND	25	
78-87-5	1,2-Dichloropropane	ND	25	
108-67-8	1,3,5-Trimethylbenzene	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
142-28-9	1,3-Dichloropropane	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
594-20-7	2,2-Dichloropropane	ND	25	
78-93-3	2-Butanone (MEK)	ND	25	
95-49-8	2-Chlorotoluene	ND	25	
591-78-6	2-Hexanone	ND	25	
67-64-1	2-Propanone (acetone)	ND	25	
106-43-4	4-Chlorotoluene	ND	25	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	25	
107-13-1	Acrylonitrile	ND	25	
71-43-2	Benzene	ND	25	
108-86-1	Bromobenzene	ND	25	
74-97-5	Bromochloromethane	ND	25	
75-27-4	Bromodichloromethane	ND	25	
75-25-2	Bromoform	ND	25	
74-83-9	Bromomethane	ND	25	
75-15-0	Carbon Disulfide	ND	25	
56-23-5	Carbon tetrachloride	ND	25	
108-90-7	Chlorobenzene	ND	25	
75-00-3	Chloroethane	ND	25	

67-66-3	Chloroform	ND	25
74-87-3	Chloromethane	ND	25
124-48-1	Dibromochloromethane	ND	25
74-95-3	Dibromomethane	ND	25
75-71-8	Dichlorodifluoromethane	ND	25
60-29-7	Ethyl Ether	ND	25
100-41-4	Ethylbenzene	ND	25
87-68-3	Hexachlorobutadiene	ND	25
98-82-8	Isopropylbenzene	ND	25
108-38-3/106-42-	M/P Xylene	ND	50
1634-04-4	Methyl-t-Butyl Ether	ND	25
75-09-2	Methylene Chloride	ND	25
104-51-8	N-Butylbenzene	ND	25
103-65-1	N-Propylbenzene	ND	25
91-20-3	Naphthalene	ND	25
95-47-6	Ortho Xylene	ND	25
99-87-6	Para-Isopropyltoluene	ND	25
135-98-8	Sec-Butylbenzene	ND	25
100-42-5	Styrene	ND	25
98-06-6	Tert-Butylbenzene	ND	25
127-18-4	Tetrachloroethylene	ND	25
109-99-9	Tetrahydrofuran	ND	25
108-88-3	Toluene	ND	25
156-60-5	Trans-1,2-Dichloroethylene	ND	25
79-01-6	Trichloroethylene	890	25
75-69-4	Trichlorofluoromethane	ND	25
108-05-4	Vinyl Acetate	ND	25
75-01-4	Vinyl Chloride	ND	25
10061-01-5	c-1,3-dichloropropene	ND	25
156-59-2	cis-1,2-Dichloroethylene	29	25
10061-02-6	t-1,3-Dichloropropene	ND	25

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	132	81 - 153
Toluene-D8	110	83 - 118
1,4-Bromofluorobenzene	97	63 - 112

Comments: Tetrachloroethylene is present below the RL.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

**Fisherville Mill - Grafton, MA**

**Laboratory Blank for \$VOAMW**

Client Sample ID: N/A  
Date of Collection: N/A  
Date of Extraction: 6/30/04  
Date of Analysis: 6/30/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: N/A  
Matrix: Water  
Volume Purged: 5.0 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

74-87-3	Chloromethane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	<i>WJA</i> <del>44</del> 126	74 - 136
Toluene-D8	<i>7/9/4</i> <del>39</del> 112	85 - 118
1,4-Bromofluorobenzene	<del>36</del> 102	79 - 111

Comments:



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15661  
Date of Collection: 6/28/2004  
Date of Extraction: 6/30/04  
Date of Analysis: 6/30/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41583  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 25  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	
71-55-6	1,1,1-Trichloroethane	ND	25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	25	
79-00-5	1,1,2-Trichloroethane	ND	25	
75-35-4	1,1-Dichloroethylene	ND	25	
563-58-6	1,1-Dichloropropene	ND	25	
75-34-3	1,1-dichloroethane	ND	25	
87-61-6	1,2,3-Trichlorobenzene	ND	25	
96-18-4	1,2,3-Trichloropropane	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
95-63-6	1,2,4-Trimethylbenzene	ND	25	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	25	
106-93-4	1,2-Dibromoethane	ND	25	
95-50-1	1,2-Dichlorobenzene	ND	25	
107-06-2	1,2-Dichloroethane	ND	25	
78-87-5	1,2-Dichloropropane	ND	25	
108-67-8	1,3,5-Trimethylbenzene	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
142-28-9	1,3-Dichloropropane	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
594-20-7	2,2-Dichloropropane	ND	25	
78-93-3	2-Butanone (MEK)	ND	25	
95-49-8	2-Chlorotoluene	ND	25	
591-78-6	2-Hexanone	ND	25	
67-64-1	2-Propanone (acetone)	ND	25	
106-43-4	4-Chlorotoluene	ND	25	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	25	
107-13-1	Acrylonitrile	ND	25	
71-43-2	Benzene	ND	25	
108-86-1	Bromobenzene	ND	25	
74-97-5	Bromochloromethane	ND	25	
75-27-4	Bromodichloromethane	ND	25	
75-25-2	Bromoform	ND	25	
74-83-9	Bromomethane	ND	25	
75-15-0	Carbon Disulfide	ND	25	
56-23-5	Carbon tetrachloride	ND	25	
108-90-7	Chlorobenzene	ND	25	
75-00-3	Chloroethane	ND	25	
67-66-3	Chloroform	ND	25	

74-87-1	Chloromethane	ND	25
124-48-1	Dibromochloromethane	ND	25
74-95-3	Dibromomethane	ND	25
75-71-8	Dichlorodifluoromethane	ND	25
60-29-7	Ethyl Ether	ND	25
100-41-4	Ethylbenzene	ND	25
87-68-3	Hexachlorobutadiene	ND	25
98-82-8	Isopropylbenzene	ND	25
108-38-3/106-42-1	M/P Xylene	ND	50
1634-04-4	Methyl-t-Butyl Ether	ND	25
75-09-2	Methylene Chloride	ND	25
104-51-8	N-Butylbenzene	ND	25
103-65-1	N-Propylbenzene	ND	25
91-20-3	Naphthalene	ND	25
95-47-6	Ortho Xylene	ND	25
99-87-6	Para-Isopropyltoluene	ND	25
135-98-8	Sec-Butylbenzene	ND	25
100-42-5	Styrene	ND	25
98-06-6	Tert-Butylbenzene	ND	25
127-18-4	Tetrachloroethylene	ND	25
109-99-9	Tetrahydrofuran	ND	25
108-88-3	Toluene	ND	25
156-60-5	Trans-1,2-Dichloroethylene	ND	25
79-01-6	Trichloroethylene	840	25
75-69-4	Trichlorofluoromethane	ND	25
108-05-4	Vinyl Acetate	ND	25
75-01-4	Vinyl Chloride	ND	25
10061-01-5	c-1,3-dichloropropene	ND	25
156-59-2	cis-1,2-Dichloroethylene	30	25
10061-02-6	t-1,3-Dichloropropene	ND	25

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	132	81 - 153
Toluene-D8	115	83 - 118
1,4-Bromofluorobenzene	95	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID:	D15673	Lab Sample ID:	AA41586
Date of Collection:	6/28/2004	Matrix	Water
Date of Extraction:	6/30/04	Volume Purged:	5 mL
Date of Analysis:	6/30/04	Percent Solids:	N/A
Dry Weight Extracted:	N/A	Extract Dilution:	1
Wet Weight Extracted:	N/A	pH:	<2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	4.0	1.0	J
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	136	81 - 153
Toluene-D8	112	83 - 118
1,4-Bromofluorobenzene	100	63 - 112

Comments: Acetone was out of spec for the CCV.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15674  
Date of Collection: 6/28/2004  
Date of Extraction: 6/30/04  
Date of Analysis: 6/30/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41587  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	3.2	1.0	J
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	131	81 - 153
Toluene-D8	113	83 - 118
1,4-Bromofluorobenzene	98	63 - 112

Comments: Acetone was out of spec for the CCV.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

**LABORATORY FORTIFIED BLANK (LFB) AND DUPLICATE (LFB Dup) RECOVERY**

Fisherville Mill - Grafton, MA

COMPOUND	SPIKE ADDED ug/mL	LFB CONCENTRATION ug/mL	LFB RECOVERY %	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	50	63	126	60 - 140
1,1,1-Trichloroethane	50	66	132	60 - 140
1,1,2,2-Tetrachloroethane	50	57	114	60 - 140
1,1,2-Trichloro-1,2,2-Trifluoroeth	50	44	88	60 - 140
1,1,2-Trichloroethane	50	58	116	60 - 140
1,1-Dichloroethylene	50	54	108	7 - 148
1,1-Dichloropropene	50	61	122	60 - 140
1,1-dichloroethane	50	57	114	60 - 140
1,2,3-Trichlorobenzene	50	61	122	60 - 140
1,2,3-Trichloropropane	50	51	102	60 - 140
1,2,4-Trichlorobenzene	50	60	120	60 - 140
1,2,4-Trimethylbenzene	50	61	122	60 - 140
1,2-Dibromo-3-Chloropropane	50	61	122	60 - 140
1,2-Dibromoethane	50	58	116	60 - 140
1,2-Dichlorobenzene	50	59	118	60 - 140
1,2-Dichloroethane	50	63	126	60 - 140
1,2-Dichloropropane	50	55	110	60 - 140
1,3,5-Trimethylbenzene	50	61	122	60 - 140
1,3-Dichlorobenzene	50	58	116	60 - 140
1,3-Dichloropropane	50	59	118	60 - 140
1,4-Dichlorobenzene	50	58	116	60 - 140
2,2-Dichloropropane	50	71	142	60 - 140
2-Butanone (MEK)	50	78	156	60 - 140
2-Chlorotoluene	50	56	112	60 - 140
2-Hexanone	50	74	148	60 - 140
2-Propanone (acetone)	50	110	220	60 - 140
4-Chlorotoluene	50	61	122	60 - 140
4-Methyl-2-Pentanone(MIBK)	50	60	120	60 - 140
Acrylonitrile	50	54	108	60 - 140
Benzene	50	57	114	39 - 119
Bromobenzene	50	54	108	60 - 140
Bromochloromethane	50	51	102	60 - 140
Bromodichloromethane	50	65	130	60 - 140
Bromoform	50	52	104	60 - 140
Bromomethane	50	55	110	60 - 140
Carbon Disulfide	50	57	114	60 - 140
Carbon tetrachloride	50	68	136	60 - 140
Chlorobenzene	50	59	118	48 - 131
Chloroethane	50	50	100	60 - 140
Chloroform	50	59	118	60 - 140
Chloromethane	50	42	84	60 - 140
Dibromochloromethane	50	66	132	60 - 140
Dibromomethane	50	58	116	60 - 140
Dichlorodifluoromethane	50	38	76	60 - 140
Ethyl Ether	50	56	112	60 - 140
Ethylbenzene	50	60	120	60 - 140
Hexachlorobutadiene	50	63	126	60 - 140
Isopropylbenzene	50	59	118	60 - 140
M/P Xylene	100	120	120	60 - 140
Methyl-t-Butyl Ether	50	61	122	60 - 140

N-Butylbenzene	50	63	110	60 - 140
N-Propylbenzene	50	56	112	60 - 140
Naphthalene	50	65	130	60 - 140
Ortho Xylene	50	59	118	60 - 140
Para-Isopropyltoluene	50	60	120	60 - 140
Sec-Butylbenzene	50	59	118	60 - 140
Styrene	50	65	130	60 - 140
Tert-Butylbenzene	50	62	124	60 - 140
Tetrachloroethylene	50	47	94	60 - 140
Tetrahydrofuran	50	54	108	60 - 140
Toluene	50	60	120	43 - 136
Trans-1,2-Dichloroethylene	50	55	110	60 - 140
Trichloroethylene	50	58	116	37 - 130
Trichlorofluoromethane	50	60	120	60 - 140
Vinyl Acetate	50	74	148	60 - 140
Vinyl Chloride	50	48	96	60 - 140
c-1,3-dichloropropene	50	69	138	60 - 140
cis-1,2-Dichloroethylene	50	53	106	60 - 140
t-1,3-Dichloropropene	50	74	148	60 - 140



COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	62.8	126	0	40
1,1,1-Trichloroethane	64.9	130	2	16
1,1,2,2-Tetrachloroethane	50.4	101	12	40
1,1,2-Trichloro-1,2,2-Trifluo	45.5	91	3	40
1,1,2-Trichloroethane	61.3	123	6	40
1,1-Dichloroethylene	58.8	118	9	35
1,1-Dichloropropene	62.3	125	2	40
1,1-dichloroethane	59.5	119	4	40
1,2,3-Trichlorobenzene	65.5	131	7	40
1,2,3-Trichloropropane	52.7	105	3	40
1,2,4-Trichlorobenzene	57.7	115	4	40
1,2,4-Trimethylbenzene	59.4	119	3	40
1,2-Dibromo-3-Chloropropa	55.7	111	9	40
1,2-Dibromoethane	57.3	115	1	40
1,2-Dichlorobenzene	59.3	119	1	40
1,2-Dichloroethane	66.0	132	5	23
1,2-Dichloropropane	54.3	109	1	40
1,3,5-Trimethylbenzene	60.0	120	2	40
1,3-Dichlorobenzene	59.6	119	3	40
1,3-Dichloropropane	58.2	116	1	40
1,4-Dichlorobenzene	60.5	121	4	21
2,2-Dichloropropane	50.6	101	34	40
2-Butanone (MEK)	53.9	108	37	40
2-Chlorotoluene	57.2	114	2	40
2-Hexanone	57.0	114	26	40
2-Propanone (acetone)	56.9	114	64	40
4-Chlorotoluene	59.6	119	2	40
4-Methyl-2-Pentanone(MIB	56.5	113	6	40
Acrylonitrile	54.6	109	1	40
Benzene	62.1	124	9	14
Bromobenzene	56.5	113	5	40
Bromochloromethane	53.4	107	5	40
Bromodichloromethane	64.3	129	1	21
Bromoform	47.9	96	8	40
Bromomethane	58.9	118	7	40
Carbon Disulfide	58.1	116	2	40
Carbon tetrachloride	69.6	139	2	19
Chlorobenzene	63.8	128	8	40
Chloroethane	54.5	109	9	40
Chloroform	62.8	126	6	16
Chloromethane	46.6	93	10	40
Dibromochloromethane	65.3	131	1	36
Dibromomethane	56.9	114	2	40
Dichlorodifluoromethane	39.3	79	3	40
Ethyl Ether	56.5	113	1	40
Ethylbenzene	57.4	115	4	40
Hexachlorobutadiene	59.8	120	5	40
Isopropylbenzene	56.9	114	4	40
M/P Xylene	125.2	125	4	40
Methyl-t-Butyl Ether	57.8	116	5	40
Methylene Chloride	59.6	119	3	40
N-Butylbenzene	59.1	118	6	40
N-Propylbenzene	53.4	107	5	40
Naphthalene	64.8	130	0	40
Ortho Xylene	61.3	123	4	40

para-Isopropyltoluene	57.0	115	4	40
Sec-Butylbenzene	59.0	118	0	40
Styrene	67.9	136	4	40
Tert-Butylbenzene	64.2	128	4	40
Tetrachloroethylene	87.9	176	61	40
Tetrahydrofuran	50.8	102	6	40
Toluene	62.7	125	4	40
Trans-1,2-Dichloroethylene	56.8	114	3	40
Trichloroethylene	62.3	125	7	22
Trichlorofluoromethane	64.8	130	8	40
Vinyl Acetate	30.5	61	83	40
Vinyl Chloride	53.1	106	10	19
c-1,3-dichloropropene	67.3	135	3	40
cis-1,2-Dichloroethylene	55.3	111	4	40
t-1,3-Dichloropropene	69.0	138	7	40

Samples in Batch: AA41574 AA41582 AA41583 AA41586 AA41587

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

VOA MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Fisherville Mill - Grafton, MA

Sample ID: AA41574

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	100	ND	120	122	70 - 130
1,1,1-Trichloroethane	100	ND	130	131	56 - 145
1,1,2,2-Tetrachloroethane	100	ND	130	128	70 - 130
1,1,2-Trichloro-1,2,2-Trifluoro	100	ND	90	90	70 - 130
1,1,2-Trichloroethane	100	ND	120	125	70 - 130
1,1-Dichloroethylene	100	ND	120	116	81 - 139
1,1-Dichloropropene	100	ND	120	122	70 - 130
1,1-dichloroethane	100	ND	120	124	70 - 130
1,2,3-Trichlorobenzene	100	ND	130	127	70 - 130
1,2,3-Trichloropropane	100	ND	110	112	70 - 130
1,2,4-Trichlorobenzene	100	ND	120	124	70 - 130
1,2,4-Trimethylbenzene	100	ND	130	129	70 - 130
1,2-Dibromo-3-Chloropropane	100	ND	110	107	70 - 130
1,2-Dibromoethane	100	ND	120	121	70 - 130
1,2-Dichlorobenzene	100	ND	120	121	70 - 130
1,2-Dichloroethane	100	ND	130	134	68 - 122
1,2-Dichloropropane	100	ND	110	112	70 - 130
1,3,5-Trimethylbenzene	100	ND	130	127	70 - 130
1,3-Dichlorobenzene	100	ND	120	119	70 - 130
1,3-Dichloropropane	100	ND	120	125	70 - 130
1,4-Dichlorobenzene	100	ND	120	119	72 - 118
2,2-Dichloropropane	100	ND	110	113	70 - 130
2-Butanone (MEK)	100	ND	120	118	70 - 130
2-Chlorotoluene	100	ND	110	114	70 - 130
2-Hexanone	100	ND	120	118	70 - 130
2-Propanone (acetone)	100	ND	130	127	70 - 130
4-Chlorotoluene	100	ND	120	124	70 - 130
4-Methyl-2-Pentanone(MIBK)	100	ND	120	123	70 - 130
Acrylonitrile	100	ND	120	116	70 - 130
Benzene	100	ND	120	124	85 - 124
Bromobenzene	100	ND	110	113	70 - 130
Bromochloromethane	100	ND	110	113	70 - 130
Bromodichloromethane	100	ND	130	130	64 - 130
Bromoform	100	ND	110	107	54 - 112
Bromomethane	100	ND	110	112	70 - 130
Carbon Disulfide	100	ND	110	114	70 - 130
Carbon tetrachloride	100	ND	140	136	73 - 130
Chlorobenzene	100	ND	130	130	70 - 130
Chloroethane	100	ND	120	116	70 - 130
Chloroform	100	ND	130	126	67 - 134
Chloromethane	100	ND	94	94	70 - 130
Dibromochloromethane	100	ND	120	123	58 - 123
Dibromomethane	100	ND	120	123	70 - 130
Dichlorodifluoromethane	100	ND	83	83	70 - 130

Ethylbenzene	100	ND	140	138	70 - 130
Hexachlorobutadiene	100	ND	120	118	70 - 130
Isopropylbenzene	100	ND	120	124	70 - 130
M/P Xylene	200	ND	260	132	70 - 130
Methyl-t-Butyl Ether	100	ND	120	122	70 - 130
Methylene Chloride	100	ND	120	124	70 - 130
N-Butylbenzene	100	ND	130	125	70 - 130
N-Propylbenzene	100	ND	130	130	70 - 130
Naphthalene	100	ND	140	138	70 - 130
Ortho Xylene	100	ND	120	123	70 - 130
Para-Isopropyltoluene	100	ND	130	125	70 - 130
Sec-Butylbenzene	100	ND	130	132	70 - 130
Styrene	100	ND	130	132	70 - 130
Tert-Butylbenzene	100	ND	130	128	70 - 130
Tetrachloroethylene	100	ND	100	101	70 - 130
Tetrahydrofuran	100	ND	110	114	70 - 130
Toluene	100	ND	130	134	70 - 130
Trans-1,2-Dichloroethylene	100	ND	120	118	70 - 130
Trichloroethylene	100	37	150	117	67 - 129
Trichlorofluoromethane	100	ND	140	136	70 - 130
Vinyl Acetate	100	ND	140	137	70 - 130
Vinyl Chloride	100	12	130	113	61 - 160
c-1,3-dichloropropene	100	ND	130	125	70 - 130
cis-1,2-Dichloroethylene	100	190	320	132	70 - 130
t-1,3-Dichloropropene	100	ND	130	135	70 - 130

Comments:

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	100	100	104	16	40
1,1,1-Trichloroethane	100	110	109	18	16
1,1,2,2-Tetrachloroethane	100	100	104	21	40
1,1,2-Trichloro-1,2,2-Trif	100	87	87	3	40
1,1,2-Trichloroethane	100	110	106	16	40
1,1-Dichloroethylene	100	100	104	11	35
1,1-Dichloropropene	100	100	99	21	40
1,1-dichloroethane	100	100	102	20	40
1,2,3-Trichlorobenzene	100	120	118	7	40
1,2,3-Trichloropropane	100	96	96	15	40
1,2,4-Trichlorobenzene	100	110	105	17	40
1,2,4-Trimethylbenzene	100	110	113	13	40
1,2-Dibromo-3-Chloropro	100	86	86	22	40
1,2-Dibromoethane	100	98	98	21	40
1,2-Dichlorobenzene	100	110	108	11	40
1,2-Dichloroethane	100	110	114	16	23
1,2-Dichloropropane	100	95	95	16	40
1,3,5-Trimethylbenzene	100	110	111	13	40
1,3-Dichlorobenzene	100	110	106	12	40
1,3-Dichloropropane	100	110	105	17	40
1,4-Dichlorobenzene	100	110	108	10	21
2,2-Dichloropropane	100	92	92	21	40
2-Butanone (MEK)	100	110	109	8	40
2-Chlorotoluene	100	100	105	8	40
2-Hexanone	100	100	101	16	40
2-Propanone (acetone)	100	110	109	15	40
4-Chlorotoluene	100	110	108	14	40
4-Methyl-2-Pentanone(M	100	100	104	17	40
Acrylonitrile	100	94	94	21	40
Benzene	100	110	106	16	14
Bromobenzene	100	100	101	11	40
Bromochloromethane	100	96	96	16	40
Bromodichloromethane	100	110	106	20	21
Bromoform	100	85	85	23	40
Bromomethane	100	100	104	7	40
Carbon Disulfide	100	100	100	14	40
Carbon tetrachloride	100	110	112	19	19
Chlorobenzene	100	110	109	18	40
Chloroethane	100	99	99	16	40
Chloroform	100	110	108	15	16
Chloromethane	100	86	86	9	40
Dibromochloromethane	100	100	105	16	36
Dibromomethane	100	100	103	18	40
Dichlorodifluoromethane	100	69	69	18	40
Ethyl Ether	100	110	108	11	40
Ethylbenzene	100	110	114	19	40
Hexachlorobutadiene	100	110	106	11	40
Isopropylbenzene	100	100	105	17	40
M/P Xylene	200	220	109	19	40
Methyl-t-Butyl Ether	100	110	113	8	40
Methylene Chloride	100	110	110	12	40
N-Butylbenzene	100	110	106	16	40
N-Propylbenzene	100	110	114	13	40

Naphthalene	100	120	120	14	40
Ortho Xylene	100	100	103	18	40
Para-Isopropyltoluene	100	110	108	15	40
Sec-Butylbenzene	100	120	116	13	40
Styrene	100	110	112	16	40
Tert-Butylbenzene	100	110	107	18	40
Tetrachloroethylene	100	82	82	21	40
Tetrahydrofuran	100	100	104	9	40
Toluene	100	110	112	18	40
Trans-1,2-Dichloroethyle	100	100	101	16	40
Trichloroethylene	100	130	98	17	22
Trichlorofluoromethane	100	110	115	17	40
Vinyl Acetate	100	120	116	17	40
Vinyl Chloride	100	110	96	17	19
c-1,3-dichloropropene	100	110	107	16	40
cis-1,2-Dichloroethylene	100	300	108	20	40
t-1,3-Dichloropropene	100	110	111	20	40

Comments:

Samples in Batch: AA41574 AA41582 AA41583 AA41586 AA41587

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Laboratory Duplicate Results

Fisherville Mill - Grafton, MA

Sample ID: AA41574

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	ND	30
1,1,1-Trichloroethane	ND	ND	ND	30
1,1,2,2-Tetrachloroethane	ND	ND	ND	30
1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	ND	ND	30
1,1,2-Trichloroethane	ND	ND	ND	30
1,1-Dichloroethylene	ND	ND	ND	30
1,1-Dichloropropene	ND	ND	ND	30
1,1-dichloroethane	ND	ND	ND	30
1,2,3-Trichlorobenzene	ND	ND	ND	30
1,2,3-Trichloropropane	ND	ND	ND	30
1,2,4-Trichlorobenzene	ND	ND	ND	30
1,2,4-Trimethylbenzene	ND	ND	ND	30
1,2-Dibromo-3-Chloropropane	ND	ND	ND	30
1,2-Dibromoethane	ND	ND	ND	30
1,2-Dichlorobenzene	ND	ND	ND	30
1,2-Dichloroethane	ND	ND	ND	30
1,2-Dichloropropane	ND	ND	ND	30
1,3,5-Trimethylbenzene	ND	ND	ND	30
1,3-Dichlorobenzene	ND	ND	ND	30
1,3-Dichloropropane	ND	ND	ND	30
1,4-Dichlorobenzene	ND	ND	ND	30
2,2-Dichloropropane	ND	ND	ND	30
2-Butanone (MEK)	ND	ND	ND	30
2-Chlorotoluene	ND	ND	ND	30
2-Hexanone	ND	ND	ND	30
2-Propanone (acetone)	ND	ND	ND	30
4-Chlorotoluene	ND	ND	ND	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	30
Acrylonitrile	ND	ND	ND	30
Benzene	ND	ND	ND	30
Bromobenzene	ND	ND	ND	30
Bromochloromethane	ND	ND	ND	30
Bromodichloromethane	ND	ND	ND	30
Bromoform	ND	ND	ND	30
Bromomethane	ND	ND	ND	30
Carbon Disulfide	ND	ND	ND	30
Carbon tetrachloride	ND	ND	ND	30
Chlorobenzene	ND	ND	ND	30
Chloroethane	ND	ND	ND	30
Chloroform	ND	ND	ND	30
Chloromethane	ND	ND	ND	30
Dibromochloromethane	ND	ND	ND	30
Dibromomethane	ND	ND	ND	30
Dichlorodifluoromethane	ND	ND	ND	30
Ethyl Ether	ND	ND	ND	30
Ethylbenzene	ND	ND	ND	30
Hexachlorobutadiene	ND	ND	ND	30
Isopropylbenzene	ND	ND	ND	30
M/P Xylene	ND	ND	ND	30
Methyl-t-Butyl Ether	ND	ND	ND	30
Methylene Chloride	ND	ND	ND	30

N-Butylbenzene	ND	ND	ND	30
N-Propylbenzene	ND	ND	ND	30
Naphthalene	ND	ND	ND	30
Ortho Xylene	ND	ND	ND	30
Para-Isopropyltoluene	ND	ND	ND	30
Sec-Butylbenzene	ND	ND	ND	30
Styrene	ND	ND	ND	30
Tert-Butylbenzene	ND	ND	ND	30
Tetrachloroethylene	ND	ND	ND	30
Tetrahydrofuran	ND	ND	ND	30
Toluene	ND	ND	ND	30
Trans-1,2-Dichloroethylene	ND	ND	ND	30
Trichloroethylene	36.6	36.6	0.00	30
Trichlorofluoromethane	ND	ND	ND	30
Vinyl Acetate	ND	ND	ND	30
Vinyl Chloride	12.4	12.4	0.00	30
c-1,3-dichloropropene	ND	ND	ND	30
cis-1,2-Dichloroethylene	192.3	198	2.92	30
t-1,3-Dichloropropene	ND	ND	ND	30



## Laboratory Report

July 07, 2004

Mrs Janis Tsang - HBR  
USEPA New England, Region 1  
One Congress Street  
Boston, MA 02114 - 2023

Project Number: 04060044  
Project: Fisherville Mill - Grafton, MA  
Analysis: VOAs in Water  
Analyst: Dan Boudreau DB  
7/7/04

### Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, ELASOP-VOAGCMS7.

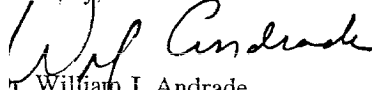
Samples were analyzed by GC/MS. Samples were introduced to the GC via a Tekmar pre-concentrator and an Archon autosampler. The analysis SOP is based on US EPA Method 8260B, SW-846, Rev 2.0, 1996. Method 624, 40CFR Part 136 Appendix A, July 1, 1992, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Date Samples Received by the Laboratory: 6/29/04

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8333.

Sincerely,

 07/09/04  
William J. Andrade  
Advanced Analytical Chemistry Specialist

Quantifiers: RL = Reporting limit

ND = Not Detected above Reporting limit

NA = Not Applicable due to high sample dilutions or sample interferences

NC = Not calculated since analyte concentration is ND.

J = Estimated value

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 5 times the concentration in the blank.

R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

**Fisherville Mill - Grafton, MA**

**VOAs in Water**

Client Sample ID:	D15637	Lab Sample ID:	AA41628
Date of Collection:	6/29/2004	Matrix	Water
Date of Extraction:	7/1/04	Volume Purged:	5 mL
Date of Analysis:	7/1/04	Percent Solids:	N/A
Dry Weight Extracted:	N/A	Extract Dilution:	5
Wet Weight Extracted:	N/A	pH:	<2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	
71-55-6	1,1,1-Trichloroethane	ND	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	5.0	
79-00-5	1,1,2-Trichloroethane	ND	5.0	
75-35-4	1,1-Dichloroethylene	ND	5.0	
563-58-6	1,1-Dichloropropene	ND	5.0	
75-34-3	1,1-dichloroethane	ND	5.0	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	
96-18-4	1,2,3-Trichloropropane	ND	5.0	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	5.0	
106-93-4	1,2-Dibromoethane	ND	5.0	
95-50-1	1,2-Dichlorobenzene	ND	5.0	
107-06-2	1,2-Dichloroethane	ND	5.0	
78-87-5	1,2-Dichloropropane	ND	5.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	
541-73-1	1,3-Dichlorobenzene	ND	5.0	
142-28-9	1,3-Dichloropropane	ND	5.0	
106-46-7	1,4-Dichlorobenzene	ND	5.0	
594-20-7	2,2-Dichloropropane	ND	5.0	
78-93-3	2-Butanone (MEK)	ND	5.0	
95-49-8	2-Chlorotoluene	ND	5.0	
591-78-6	2-Hexanone	ND	5.0	
67-64-1	2-Propanone (acetone)	7.0	5.0	
106-43-4	4-Chlorotoluene	ND	5.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	5.0	
107-13-1	Acrylonitrile	ND	5.0	
71-43-2	Benzene	ND	5.0	
108-86-1	Bromobenzene	ND	5.0	
74-97-5	Bromochloromethane	ND	5.0	
75-27-4	Bromodichloromethane	ND	5.0	
75-25-2	Bromoform	ND	5.0	
74-83-9	Bromomethane	ND	5.0	
75-15-0	Carbon Disulfide	ND	5.0	
56-23-5	Carbon tetrachloride	ND	5.0	
108-90-7	Chlorobenzene	ND	5.0	
75-00-3	Chloroethane	ND	5.0	
67-66-3	Chloroform	ND	5.0	

124-48-1	Dibromochloromethane	ND	5.0
74-95-3	Dibromomethane	ND	5.0
75-71-8	Dichlorodifluoromethane	ND	5.0
60-29-7	Ethyl Ether	ND	5.0
100-41-4	Ethylbenzene	ND	5.0
87-68-3	Hexachlorobutadiene	ND	5.0
98-82-8	Isopropylbenzene	ND	5.0
108-38-3/106-42-	M/P Xylene	ND	10
1634-04-4	Methyl-t-Butyl Ether	ND	5.0
75-09-2	Methylene Chloride	ND	5.0
104-51-8	N-Butylbenzene	ND	5.0
103-65-1	N-Propylbenzene	ND	5.0
91-20-3	Naphthalene	ND	5.0
95-47-6	Ortho Xylene	ND	5.0
99-87-6	Para-Isopropyltoluene	ND	5.0
135-98-8	Sec-Butylbenzene	ND	5.0
100-42-5	Styrene	ND	5.0
98-06-6	Tert-Butylbenzene	ND	5.0
127-18-4	Tetrachloroethylene	ND	5.0
109-99-9	Tetrahydrofuran	ND	5.0
108-88-3	Toluene	ND	5.0
156-60-5	Trans-1,2-Dichloroethylene	ND	5.0
79-01-6	Trichloroethylene	10	5.0
75-69-4	Trichlorofluoromethane	ND	5.0
108-05-4	Vinyl Acetate	ND	5.0
75-01-4	Vinyl Chloride	29	5.0
10061-01-5	c-1,3-dichloropropene	ND	5.0
156-59-2	cis-1,2-Dichloroethylene	410	5.0
10061-02-6	t-1,3-Dichloropropene	ND	5.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	131	81 - 153
Toluene-D8	110	83 - 118
1,4-Bromofluorobenzene	97	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

Laboratory Blank for \$VOAMW

Client Sample ID: N/A  
Date of Collection: N/A  
Date of Extraction: 7/1/04  
Date of Analysis: 7/1/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: N/A  
Matrix: Water  
Volume Purged: 5.0 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

71-0-0	Chloromethane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	48	74 - 136
Toluene-D8	38	85 - 118
1,4-Bromofluorobenzene	34	79 - 111

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15675  
Date of Collection: 6/29/2004  
Date of Extraction: 7/1/04  
Date of Analysis: 7/1/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41644  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	2.5	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	132	81 - 153
Toluene-D8	117	83 - 118
1,4-Bromofluorobenzene	99	63 - 112

Comments:



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15676

Date of Collection: 6/29/2004

Date of Extraction: 7/1/04

Date of Analysis: 7/1/04

Dry Weight Extracted: N/A

Wet Weight Extracted: N/A

Lab Sample ID: AA41645

Matrix: Water

Volume Purged: 5 mL

Percent Solids: N/A

Extract Dilution: 1

pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	3.4	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	137	81 - 153
Toluene-D8	112	83 - 118
1,4-Bromofluorobenzene	96	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

**LABORATORY FORTIFIED BLANK (LFB) AND DUPLICATE (LFB Dup) RECOVERY**

Fisherville Mill - Grafton, MA

COMPOUND	SPIKE ADDED ug/mL	LFB CONCENTRATION ug/mL	LFB RECOVERY %	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	50	61	122	60 - 140
1,1,1-Trichloroethane	50	67	134	60 - 140
1,1,2,2-Tetrachloroethane	50	56	112	60 - 140
1,1,2-Trichloro-1,2,2-Trifluoroeth	50	49	98	60 - 140
1,1,2-Trichloroethane	50	61	122	60 - 140
1,1-Dichloroethylene	50	61	122	7 - 148
1,1-Dichloropropene	50	61	122	60 - 140
1,1-dichloroethane	50	63	126	60 - 140
1,2,3-Trichlorobenzene	50	65	130	60 - 140
1,2,3-Trichloropropane	50	51	102	60 - 140
1,2,4-Trichlorobenzene	50	61	122	60 - 140
1,2,4-Trimethylbenzene	50	61	122	60 - 140
1,2-Dibromo-3-Chloropropane	50	57	114	60 - 140
1,2-Dibromoethane	50	57	114	60 - 140
1,2-Dichlorobenzene	50	61	122	60 - 140
1,2-Dichloroethane	50	63	126	60 - 140
1,2-Dichloropropane	50	55	110	60 - 140
1,3,5-Trimethylbenzene	50	61	122	60 - 140
1,3-Dichlorobenzene	50	61	122	60 - 140
1,3-Dichloropropane	50	58	116	60 - 140
1,4-Dichlorobenzene	50	60	120	60 - 140
2,2-Dichloropropane	50	68	136	60 - 140
2-Butanone (MEK)	50	56	112	60 - 140
2-Chlorotoluene	50	60	120	60 - 140
2-Hexanone	50	54	108	60 - 140
2-Propanone (acetone)	50	57	114	60 - 140
4-Chlorotoluene	50	60	120	60 - 140
4-Methyl-2-Pentanone(MIBK)	50	54	108	60 - 140
Acrylonitrile	50	48	96	60 - 140
Benzene	50	59	118	39 - 119
Bromobenzene	50	57	114	60 - 140
Bromochloromethane	50	55	110	60 - 140
Bromodichloromethane	50	67	134	60 - 140
Bromoform	50	51	102	60 - 140
Bromomethane	50	63	126	60 - 140
Carbon Disulfide	50	67	134	60 - 140
Carbon tetrachloride	50	71	142	60 - 140
Chlorobenzene	50	61	122	48 - 131
Chloroethane	50	59	118	60 - 140
Chloroform	50	63	126	60 - 140
Chloromethane	50	50	100	60 - 140
Dibromochloromethane	50	66	132	60 - 140
Dibromomethane	50	56	112	60 - 140
Dichlorodifluoromethane	50	41	82	60 - 140
Ethyl Ether	50	58	116	60 - 140
Ethylbenzene	50	55	110	60 - 140
Hexachlorobutadiene	50	65	130	60 - 140
Isopropylbenzene	50	57	114	60 - 140
M/P Xylene	100	120	120	60 - 140
Methyl-t-Butyl Ether	50	58	116	60 - 140

Methylene Chloride	50	62	124	60 - 140
N-Butylbenzene	50	62	124	60 - 140
N-Propylbenzene	50	55	110	60 - 140
Naphthalene	50	65	130	60 - 140
Ortho Xylene	50	60	120	60 - 140
Para-Isopropyltoluene	50	58	116	60 - 140
Sec-Butylbenzene	50	59	118	60 - 140
Styrene	50	67	134	60 - 140
Tert-Butylbenzene	50	64	128	60 - 140
Tetrachloroethylene	50	49	98	60 - 140
Tetrahydrofuran	50	54	108	60 - 140
Toluene	50	61	122	43 - 136
Trans-1,2-Dichloroethylene	50	62	124	60 - 140
Trichloroethylene	50	56	112	37 - 130
Trichlorofluoromethane	50	69	138	60 - 140
Vinyl Acetate	50	73	146	60 - 140
Vinyl Chloride	50	60	120	60 - 140
c-1,3-dichloropropene	50	68	136	60 - 140
cis-1,2-Dichloroethylene	50	58	116	60 - 140
t-1,3-Dichloropropene	50	72	144	60 - 140

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	51.5	103	17	40
1,1,1-Trichloroethane	54.0	108	22	16
1,1,2,2-Tetrachloroethane	56.2	112	0	40
1,1,2-Trichloro-1,2,2-Trifluo	37.5	75	27	40
1,1,2-Trichloroethane	56.5	113	8	40
1,1-Dichloroethylene	47.7	95	25	35
1,1-Dichloropropene	49.2	98	21	40
1,1-dichloroethane	53.3	107	17	40
1,2,3-Trichlorobenzene	60.3	121	8	40
1,2,3-Trichloropropane	52.8	106	4	40
1,2,4-Trichlorobenzene	53.4	107	13	40
1,2,4-Trimethylbenzene	53.9	108	12	40
1,2-Dibromo-3-Chloropropa	54.3	109	5	40
1,2-Dibromoethane	54.5	109	5	40
1,2-Dichlorobenzene	51.9	104	16	40
1,2-Dichloroethane	60.9	122	3	23
1,2-Dichloropropane	48.6	97	12	40
1,3,5-Trimethylbenzene	54.9	110	11	40
1,3-Dichlorobenzene	50.2	100	19	40
1,3-Dichloropropane	54.8	110	6	40
1,4-Dichlorobenzene	51.2	102	16	21
2,2-Dichloropropane	37.3	75	58	40
2-Butanone (MEK)	59.0	118	5	40
2-Chlorotoluene	48.2	96	22	40
2-Hexanone	60.7	121	12	40
2-Propanone (acetone)	62.8	126	10	40
4-Chlorotoluene	54.5	109	10	40
4-Methyl-2-Pentanone(MIB	61.0	122	12	40
Acrylonitrile	57.2	114	18	40
Benzene	52.6	105	12	14
Bromobenzene	48.4	97	16	40
Bromochloromethane	49.9	100	10	40
Bromodichloromethane	56.2	112	18	21
Bromoform	45.1	90	12	40
Bromomethane	54.5	109	15	40
Carbon Disulfide	47.0	94	35	40
Carbon tetrachloride	54.8	110	26	19
Chlorobenzene	52.7	105	15	40
Chloroethane	50.8	102	15	40
Chloroform	55.6	111	13	16
Chloromethane	42.1	84	17	40
Dibromochloromethane	56.5	113	16	36
Dibromomethane	54.6	109	3	40
Dichlorodifluoromethane	36.0	72	13	40
Ethyl Ether	56.1	112	3	40
Ethylbenzene	53.0	106	4	40
Hexachlorobutadiene	48.0	96	30	40
Isopropylbenzene	52.8	106	8	40
M/P Xylene	106.1	106	12	40
Methyl-t-Butyl Ether	56.8	114	2	40
Methylene Chloride	56.7	113	9	40
N-Butylbenzene	52.7	105	16	40
N-Propylbenzene	49.7	99	10	40
Naphthalene	68.7	137	6	40
Ortho Xylene	50.2	100	18	40

Para-Isopropyltoluene	54.5	109	6	40
Sec-Butylbenzene	54.1	108	9	40
Styrene	56.3	113	17	40
Tert-Butylbenzene	52.8	106	19	40
Tetrachloroethylene	38.4	77	24	40
Tetrahydrofuran	57.2	114	6	40
Toluene	56.2	112	8	40
Trans-1,2-Dichloroethylene	50.2	100	21	40
Trichloroethylene	46.4	93	19	22
Trichlorofluoromethane	54.8	110	23	40
Vinyl Acetate	70.2	140	4	40
Vinyl Chloride	48.4	97	21	19
c-1,3-dichloropropene	55.3	111	21	40
cis-1,2-Dichloroethylene	49.5	99	16	40
t-1,3-Dichloropropene	59.2	118	20	40

Samples in Batch: AA41628 AA41644 AA41645

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

VOA MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Fisherville Mill - Grafton, MA

Sample ID: AA41628

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	100	ND	100	101	70 - 130
1,1,1-Trichloroethane	100	ND	110	110	56 - 145
1,1,2,2-Tetrachloroethane	100	ND	100	104	70 - 130
1,1,2-Trichloro-1,2,2-Trifluoro	100	ND	82	82	70 - 130
1,1,2-Trichloroethane	100	ND	110	109	70 - 130
1,1-Dichloroethylene	100	ND	100	105	81 - 139
1,1-Dichloropropene	100	ND	100	100	70 - 130
1,1-dichloroethane	100	ND	100	105	70 - 130
1,2,3-Trichlorobenzene	100	ND	110	114	70 - 130
1,2,3-Trichloropropane	100	ND	97	97	70 - 130
1,2,4-Trichlorobenzene	100	ND	100	104	70 - 130
1,2,4-Trimethylbenzene	100	ND	110	111	70 - 130
1,2-Dibromo-3-Chloropropane	100	ND	89	89	70 - 130
1,2-Dibromoethane	100	ND	100	101	70 - 130
1,2-Dichlorobenzene	100	ND	100	103	70 - 130
1,2-Dichloroethane	100	ND	120	117	68 - 122
1,2-Dichloropropane	100	ND	93	93	70 - 130
1,3,5-Trimethylbenzene	100	ND	110	107	70 - 130
1,3-Dichlorobenzene	100	ND	100	103	70 - 130
1,3-Dichloropropane	100	ND	100	105	70 - 130
1,4-Dichlorobenzene	100	ND	100	103	72 - 118
2,2-Dichloropropane	100	ND	83	83	70 - 130
2-Butanone (MEK)	100	ND	100	102	70 - 130
2-Chlorotoluene	100	ND	100	101	70 - 130
2-Hexanone	100	ND	91	91	70 - 130
2-Propanone (acetone)	100	7.0	110	107	70 - 130
4-Chlorotoluene	100	ND	110	107	70 - 130
4-Methyl-2-Pentanone(MIBK)	100	ND	95	95	70 - 130
Acrylonitrile	100	ND	100	100	70 - 130
Benzene	100	ND	110	107	85 - 124
Bromobenzene	100	ND	96	96	70 - 130
Bromochloromethane	100	ND	100	100	70 - 130
Bromodichloromethane	100	ND	100	104	64 - 130
Bromoform	100	ND	86	86	54 - 112
Bromomethane	100	ND	120	119	70 - 130
Carbon Disulfide	100	ND	84	84	70 - 130
Carbon tetrachloride	100	ND	110	114	73 - 130
Chlorobenzene	100	ND	110	110	70 - 130
Chloroethane	100	ND	110	112	70 - 130
Chloroform	100	ND	110	111	67 - 134
Chloromethane	100	ND	99	99	70 - 130
Dibromochloromethane	100	ND	100	101	58 - 123
Dibromomethane	100	ND	100	101	70 - 130
Dichlorodifluoromethane	100	ND	77	77	70 - 130

Ethylbenzene	100	ND	110	105	70 - 130
Hexachlorobutadiene	100	ND	100	101	70 - 130
Isopropylbenzene	100	ND	100	104	70 - 130
M/P Xylene	200	ND	220	108	70 - 130
Methyl-t-Butyl Ether	100	ND	100	100	70 - 130
Methylene Chloride	100	ND	110	115	70 - 130
N-Butylbenzene	100	ND	100	103	70 - 130
N-Propylbenzene	100	ND	110	112	70 - 130
Naphthalene	100	ND	120	122	70 - 130
Ortho Xylene	100	ND	100	104	70 - 130
Para-Isopropyltoluene	100	ND	100	104	70 - 130
Sec-Butylbenzene	100	ND	110	112	70 - 130
Styrene	100	ND	110	112	70 - 130
Tert-Butylbenzene	100	ND	110	105	70 - 130
Tetrachloroethylene	100	ND	83	83	70 - 130
Tetrahydrofuran	100	ND	92	92	70 - 130
Toluene	100	ND	110	113	70 - 130
Trans-1,2-Dichloroethylene	100	ND	110	107	70 - 130
Trichloroethylene	100	10	100	95	67 - 129
Trichlorofluoromethane	100	ND	130	127	70 - 130
Vinyl Acetate	100	ND	130	129	70 - 130
Vinyl Chloride	100	29	130	103	61 - 160
c-1,3-dichloropropene	100	ND	100	101	70 - 130
cis-1,2-Dichloroethylene	100	410	450	33	70 - 130
t-1,3-Dichloropropene	100	ND	98	98	70 - 130

Comments:



PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	100	120	117	15	40
1,1,1-Trichloroethane	100	130	126	14	16
1,1,2,2-Tetrachloroethane	100	130	125	18	40
1,1,2-Trichloro-1,2,2-Trif	100	86	86	5	40
1,1,2-Trichloroethane	100	130	131	18	40
1,1-Dichloroethylene	100	120	119	13	35
1,1-Dichloropropene	100	120	123	21	40
1,1-dichloroethane	100	120	124	17	40
1,2,3-Trichlorobenzene	100	140	145	24	40
1,2,3-Trichloropropane	100	120	116	18	40
1,2,4-Trichlorobenzene	100	130	130	22	40
1,2,4-Trimethylbenzene	100	140	140	23	40
1,2-Dibromo-3-Chloropro	100	120	119	29	40
1,2-Dibromoethane	100	120	116	14	40
1,2-Dichlorobenzene	100	130	127	21	40
1,2-Dichloroethane	100	140	141	19	23
1,2-Dichloropropane	100	110	112	19	40
1,3,5-Trimethylbenzene	100	140	138	25	40
1,3-Dichlorobenzene	100	120	122	17	40
1,3-Dichloropropane	100	120	121	14	40
1,4-Dichlorobenzene	100	130	127	21	21
2,2-Dichloropropane	100	92	92	11	40
2-Butanone (MEK)	100	130	134	27	40
2-Chlorotoluene	100	120	118	16	40
2-Hexanone	100	140	138	41	40
2-Propanone (acetone)	100	150	146	31	40
4-Chlorotoluene	100	140	135	23	40
4-Methyl-2-Pentanone(M	100	140	139	37	40
Acrylonitrile	100	120	122	20	40
Benzene	100	130	130	19	14
Bromobenzene	100	120	122	24	40
Bromochloromethane	100	120	118	17	40
Bromodichloromethane	100	120	120	14	21
Bromoform	100	100	101	16	40
Bromomethane	100	120	122	2	40
Carbon Disulfide	100	120	118	33	40
Carbon tetrachloride	100	130	134	16	19
Chlorobenzene	100	140	136	21	40
Chloroethane	100	120	117	4	40
Chloroform	100	130	127	13	16
Chloromethane	100	100	100	1	40
Dibromochloromethane	100	120	121	18	36
Dibromomethane	100	120	122	19	40
Dichlorodifluoromethane	100	79	79	3	40
Ethyl Ether	100	140	137	26	40
Ethylbenzene	100	140	139	21	40
Hexachlorobutadiene	100	130	126	22	40
Isopropylbenzene	100	130	132	24	40
M/P Xylene	200	260	130	19	40
Methyl-t-Butyl Ether	100	140	137	31	40
Methylene Chloride	100	130	130	12	40
N-Butylbenzene	100	130	134	26	40
N-Propylbenzene	100	130	140	22	40

Ortho Xylene	100	120	123	17	40
Para-Isopropyltoluene	100	130	133	25	40
Sec-Butylbenzene	100	140	140	22	40
Styrene	100	130	135	19	40
Tert-Butylbenzene	100	130	131	22	40
Tetrachloroethylene	100	100	99	18	40
Tetrahydrofuran	100	130	130	35	40
Toluene	100	140	139	21	40
Trans-1,2-Dichloroethyle	100	120	122	13	40
Trichloroethylene	100	120	113	18	22
Trichlorofluoromethane	100	130	132	4	40
Vinyl Acetate	100	130	128	1	40
Vinyl Chloride	100	130	103	0	19
c-1,3-dichloropropene	100	120	123	20	40
cis-1,2-Dichloroethylene	100	460	49	41	40
t-1,3-Dichloropropene	100	130	127	26	40

Comments:

Samples in Batch: AA41628 AA41644 AA41645

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Laboratory Duplicate Results

Fisherville Mill - Grafton, MA

Sample ID: AA41628

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	ND	30
1,1,1-Trichloroethane	ND	ND	ND	30
1,1,2,2-Tetrachloroethane	ND	ND	ND	30
1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	ND	ND	30
1,1,2-Trichloroethane	ND	ND	ND	30
1,1-Dichloroethylene	ND	ND	ND	30
1,1-Dichloropropene	ND	ND	ND	30
1,1-dichloroethane	ND	ND	ND	30
1,2,3-Trichlorobenzene	ND	ND	ND	30
1,2,3-Trichloropropane	ND	ND	ND	30
1,2,4-Trichlorobenzene	ND	ND	ND	30
1,2,4-Trimethylbenzene	ND	ND	ND	30
1,2-Dibromo-3-Chloropropane	ND	ND	ND	30
1,2-Dibromoethane	ND	ND	ND	30
1,2-Dichlorobenzene	ND	ND	ND	30
1,2-Dichloroethane	ND	ND	ND	30
1,2-Dichloropropane	ND	ND	ND	30
1,3,5-Trimethylbenzene	ND	ND	ND	30
1,3-Dichlorobenzene	ND	ND	ND	30
1,3-Dichloropropane	ND	ND	ND	30
1,4-Dichlorobenzene	ND	ND	ND	30
2,2-Dichloropropane	ND	ND	ND	30
2-Butanone (MEK)	ND	ND	ND	30
2-Chlorotoluene	ND	ND	ND	30
2-Hexanone	ND	ND	ND	30
2-Propanone (acetone)	7.0	5.4	ND	30
4-Chlorotoluene	ND	ND	25.8	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	30
Acrylonitrile	ND	ND	ND	30
Benzene	ND	ND	ND	30
Bromobenzene	ND	ND	ND	30
Bromochloromethane	ND	ND	ND	30
Bromodichloromethane	ND	ND	ND	30
Bromoform	ND	ND	ND	30
Bromomethane	ND	ND	ND	30
Carbon Disulfide	ND	ND	ND	30
Carbon tetrachloride	ND	ND	ND	30
Chlorobenzene	ND	ND	ND	30
Chloroethane	ND	ND	ND	30
Chloroform	ND	ND	ND	30
Chloromethane	ND	ND	ND	30
Dibromochloromethane	ND	ND	ND	30
Dibromomethane	ND	ND	ND	30
Dichlorodifluoromethane	ND	ND	ND	30
Ethyl Ether	ND	ND	ND	30
Ethylbenzene	ND	ND	ND	30
Hexachlorobutadiene	ND	ND	ND	30
Isopropylbenzene	ND	ND	ND	30
M/P Xylene	ND	ND	ND	30
Methyl-t-Butyl Ether	ND	ND	ND	30
Methylene Chloride	ND	ND	ND	30

n-Butylbenzene	ND	ND	ND	30
N-Propylbenzene	ND	ND	ND	30
Naphthalene	ND	ND	ND	30
Ortho Xylene	ND	ND	ND	30
Para-Isopropyltoluene	ND	ND	ND	30
Sec-Butylbenzene	ND	ND	ND	30
Styrene	ND	ND	ND	30
Tert-Butylbenzene	ND	ND	ND	30
Tetrachloroethylene	ND	ND	ND	30
Tetrahydrofuran	ND	ND	ND	30
Toluene	ND	ND	ND	30
Trans-1,2-Dichloroethylene	ND	ND	ND	30
Trichloroethylene	10.0	10.8	7.69	30
Trichlorofluoromethane	ND	ND	ND	30
Vinyl Acetate	ND	ND	ND	30
Vinyl Chloride	29.2	28.1	3.84	30
c-1,3-dichloropropene	ND	ND	ND	30
cis-1,2-Dichloroethylene	414.6	453	8.85	30
t-1,3-Dichloropropene	ND	ND	ND	30

Laboratory Report

July 07, 2004

Mrs Janis Tsang - HBR  
USEPA New England, Region 1  
One Congress Street  
Boston, MA 02114 - 2023

Project Number: 04060043

Project: Fisherville Mill - Grafton, MA

Analysis: VOAs in Water

Analyst: Dan Boudreau *DB*  
*7/7/04*

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-VOAGCMS7.

Samples were analyzed by GC/MS. Samples were introduced to the GC via a Tekmar pre-concentrator and an Archon autosampler. The analysis SOP is based on US EPA Method 8260B, SW-846, Rev 2.0, 1996. Method 624, 40CFR Part 136 Appendix A, July 1, 1992, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Date Samples Received by the Laboratory: 6/29/04

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8333.

Sincerely,

*William J. Andrade* *07/09/04*  
Dr. William J. Andrade  
Advanced Analytical Chemistry Specialist

RL = Reporting limit

ND = Not Detected above Reporting limit

NA = Not Applicable due to high sample dilutions or sample interferences

NC = Not calculated since analyte concentration is ND.

J = Estimated value

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 5 times the concentration in the blank.

R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15525

Date of Collection: 6/29/2004

Date of Extraction: 7/1/04

Date of Analysis: 7/1/04

Dry Weight Extracted: N/A

Wet Weight Extracted: N/A

Lab Sample ID: AA41611

Matrix: Water

Volume Purged: 5 mL

Percent Solids: N/A

Extract Dilution: 1

pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	1.8	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	25	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	18	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	133	81 - 153
Toluene-D8	109	83 - 118
1,4-Bromofluorobenzene	98	63 - 112

Comments:



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID:	D15526	Lab Sample ID:	AA41612
Date of Collection:	6/29/2004	Matrix	Water
Date of Extraction:	7/1/04	Volume Purged:	5 mL
Date of Analysis:	7/1/04	Percent Solids:	N/A
Dry Weight Extracted:	N/A	Extract Dilution:	25
Wet Weight Extracted:	N/A	pH:	<2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	
71-55-6	1,1,1-Trichloroethane	ND	25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	25	
79-00-5	1,1,2-Trichloroethane	ND	25	
75-35-4	1,1-Dichloroethylene	ND	25	
563-58-6	1,1-Dichloropropene	ND	25	
75-34-3	1,1-dichloroethane	ND	25	
87-61-6	1,2,3-Trichlorobenzene	ND	25	
96-18-4	1,2,3-Trichloropropane	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
95-63-6	1,2,4-Trimethylbenzene	ND	25	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	25	
106-93-4	1,2-Dibromoethane	ND	25	
95-50-1	1,2-Dichlorobenzene	ND	25	
107-06-2	1,2-Dichloroethane	ND	25	
78-87-5	1,2-Dichloropropane	ND	25	
108-67-8	1,3,5-Trimethylbenzene	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
142-28-9	1,3-Dichloropropane	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
594-20-7	2,2-Dichloropropane	ND	25	
78-93-3	2-Butanone (MEK)	ND	25	
95-49-8	2-Chlorotoluene	ND	25	
591-78-6	2-Hexanone	ND	25	
67-64-1	2-Propanone (acetone)	ND	25	
106-43-4	4-Chlorotoluene	ND	25	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	25	
107-13-1	Acrylonitrile	ND	25	
71-43-2	Benzene	ND	25	
108-86-1	Bromobenzene	ND	25	
74-97-5	Bromochloromethane	ND	25	
75-27-4	Bromodichloromethane	ND	25	
75-25-2	Bromoform	ND	25	
74-83-9	Bromomethane	ND	25	
75-15-0	Carbon Disulfide	ND	25	
56-23-5	Carbon tetrachloride	ND	25	
108-90-7	Chlorobenzene	ND	25	
75-00-3	Chloroethane	ND	25	
67-66-3	Chloroform	ND	25	

74-95-3	Chloromethane	ND	25
*124-48-1	Dibromochloromethane	ND	25
74-95-3	Dibromomethane	ND	25
75-71-8	Dichlorodifluoromethane	ND	25
60-29-7	Ethyl Ether	ND	25
100-41-4	Ethylbenzene	ND	25
87-68-3	Hexachlorobutadiene	ND	25
98-82-8	Isopropylbenzene	ND	25
108-38-3/106-42-	M/P Xylene	ND	50
1634-04-4	Methyl-t-Butyl Ether	ND	25
75-09-2	Methylene Chloride	ND	25
104-51-8	N-Butylbenzene	ND	25
103-65-1	N-Propylbenzene	ND	25
91-20-3	Naphthalene	ND	25
95-47-6	Ortho Xylene	ND	25
99-87-6	Para-Isopropyltoluene	ND	25
135-98-8	Sec-Butylbenzene	ND	25
100-42-5	Styrene	ND	25
98-06-6	Tert-Butylbenzene	ND	25
127-18-4	Tetrachloroethylene	ND	25
109-99-9	Tetrahydrofuran	ND	25
108-88-3	Toluene	ND	25
156-60-5	Trans-1,2-Dichloroethylene	ND	25
79-01-6	Trichloroethylene	2700	25
75-69-4	Trichlorofluoromethane	ND	25
108-05-4	Vinyl Acetate	ND	25
75-01-4	Vinyl Chloride	70	25
10061-01-5	c-1,3-dichloropropene	ND	25
156-59-2	cis-1,2-Dichloroethylene	650	25
10061-02-6	t-1,3-Dichloropropene	ND	25

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	129	81 - 153
Toluene-D8	114	83 - 118
1,4-Bromofluorobenzene	99	63 - 112

Comments: Trichloroethylene exceeded the curve. The top of the curve is 100 ppb TCE was present @ 107 ppb. The data is not qualified.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15527  
Date of Collection: 6/29/2004  
Date of Extraction: 7/1/04  
Date of Analysis: 7/1/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41613  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 50  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	
71-55-6	1,1,1-Trichloroethane	ND	50	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	50	
79-00-5	1,1,2-Trichloroethane	ND	50	
75-35-4	1,1-Dichloroethylene	ND	50	
563-58-6	1,1-Dichloropropene	ND	50	
75-34-3	1,1-dichloroethane	ND	50	
87-61-6	1,2,3-Trichlorobenzene	ND	50	
96-18-4	1,2,3-Trichloropropane	ND	50	
120-82-1	1,2,4-Trichlorobenzene	ND	50	
95-63-6	1,2,4-Trimethylbenzene	ND	50	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	50	
106-93-4	1,2-Dibromoethane	ND	50	
95-50-1	1,2-Dichlorobenzene	ND	50	
107-06-2	1,2-Dichloroethane	ND	50	
78-87-5	1,2-Dichloropropane	ND	50	
108-67-8	1,3,5-Trimethylbenzene	ND	50	
541-73-1	1,3-Dichlorobenzene	ND	50	
142-28-9	1,3-Dichloropropane	ND	50	
106-46-7	1,4-Dichlorobenzene	ND	50	
594-20-7	2,2-Dichloropropane	ND	50	
78-93-3	2-Butanone (MEK)	ND	50	
95-49-8	2-Chlorotoluene	ND	50	
591-78-6	2-Hexanone	ND	50	
67-64-1	2-Propanone (acetone)	ND	50	
106-43-4	4-Chlorotoluene	ND	50	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	50	
107-13-1	Acrylonitrile	ND	50	
71-43-2	Benzene	ND	50	
108-86-1	Bromobenzene	ND	50	
74-97-5	Bromochloromethane	ND	50	
75-27-4	Bromodichloromethane	ND	50	
75-25-2	Bromoform	ND	50	
74-83-9	Bromomethane	ND	50	
75-15-0	Carbon Disulfide	ND	50	
56-23-5	Carbon tetrachloride	ND	50	
108-90-7	Chlorobenzene	ND	50	
75-00-3	Chloroethane	ND	50	
67-66-3	Chloroform	ND	50	

77-87-3	Chloromethane	ND	50
124-48-1	Dibromochloromethane	ND	50
74-95-3	Dibromomethane	ND	50
75-71-8	Dichlorodifluoromethane	ND	50
60-29-7	Ethyl Ether	ND	50
100-41-4	Ethylbenzene	ND	50
87-68-3	Hexachlorobutadiene	ND	50
98-82-8	Isopropylbenzene	ND	50
108-38-3/106-42-	M/P Xylene	ND	100
1634-04-4	Methyl-t-Butyl Ether	ND	50
75-09-2	Methylene Chloride	ND	50
104-51-8	N-Butylbenzene	ND	50
103-65-1	N-Propylbenzene	ND	50
91-20-3	Naphthalene	ND	50
95-47-6	Ortho Xylene	ND	50
99-87-6	Para-Isopropyltoluene	ND	50
135-98-8	Sec-Butylbenzene	ND	50
100-42-5	Styrene	ND	50
98-06-6	Tert-Butylbenzene	ND	50
127-18-4	Tetrachloroethylene	ND	50
109-99-9	Tetrahydrofuran	ND	50
108-88-3	Toluene	ND	50
156-60-5	Trans-1,2-Dichloroethylene	ND	50
79-01-6	Trichloroethylene	<b>2800</b>	50
75-69-4	Trichlorofluoromethane	ND	50
108-05-4	Vinyl Acetate	ND	50
75-01-4	Vinyl Chloride	<b>100</b>	50
10061-01-5	c-1,3-dichloropropene	ND	50
156-59-2	cis-1,2-Dichloroethylene	<b>860</b>	50
10061-02-6	t-1,3-Dichloropropene	ND	50

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	130	81 - 153
Toluene-D8	116	83 - 118
1,4-Bromofluorobenzene	96	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15530  
Date of Collection: 6/29/2004  
Date of Extraction: 7/1/04  
Date of Analysis: 7/1/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41616  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 25  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	
71-55-6	1,1,1-Trichloroethane	ND	25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	25	
79-00-5	1,1,2-Trichloroethane	ND	25	
75-35-4	1,1-Dichloroethylene	ND	25	
563-58-6	1,1-Dichloropropene	ND	25	
75-34-3	1,1-dichloroethane	ND	25	
87-61-6	1,2,3-Trichlorobenzene	ND	25	
96-18-4	1,2,3-Trichloropropane	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
95-63-6	1,2,4-Trimethylbenzene	ND	25	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	25	
106-93-4	1,2-Dibromoethane	ND	25	
95-50-1	1,2-Dichlorobenzene	ND	25	
107-06-2	1,2-Dichloroethane	ND	25	
78-87-5	1,2-Dichloropropane	ND	25	
108-67-8	1,3,5-Trimethylbenzene	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
142-28-9	1,3-Dichloropropane	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
594-20-7	2,2-Dichloropropane	ND	25	
78-93-3	2-Butanone (MEK)	ND	25	
95-49-8	2-Chlorotoluene	ND	25	
591-78-6	2-Hexanone	ND	25	
67-64-1	2-Propanone (acetone)	ND	25	
106-43-4	4-Chlorotoluene	ND	25	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	25	
107-13-1	Acrylonitrile	ND	25	
71-43-2	Benzene	ND	25	
108-86-1	Bromobenzene	ND	25	
74-97-5	Bromochloromethane	ND	25	
75-27-4	Bromodichloromethane	ND	25	
75-25-2	Bromoform	ND	25	
74-83-9	Bromomethane	ND	25	
75-15-0	Carbon Disulfide	ND	25	
56-23-5	Carbon tetrachloride	ND	25	
108-90-7	Chlorobenzene	ND	25	
75-00-3	Chloroethane	ND	25	
67-66-3	Chloroform	ND	25	

124-48-1	Dibromochloromethane	ND	25
74-95-3	Dibromomethane	ND	25
75-71-8	Dichlorodifluoromethane	ND	25
60-29-7	Ethyl Ether	ND	25
100-41-4	Ethylbenzene	ND	25
87-68-3	Hexachlorobutadiene	ND	25
98-82-8	Isopropylbenzene	ND	25
108-38-3/106-42-	M/P Xylene	ND	50
1634-04-4	Methyl-t-Butyl Ether	ND	25
75-09-2	Methylene Chloride	ND	25
104-51-8	N-Butylbenzene	ND	25
103-65-1	N-Propylbenzene	ND	25
91-20-3	Naphthalene	ND	25
95-47-6	Ortho Xylene	ND	25
99-87-6	Para-Isopropyltoluene	ND	25
135-98-8	Sec-Butylbenzene	ND	25
100-42-5	Styrene	ND	25
98-06-6	Tert-Butylbenzene	ND	25
127-18-4	Tetrachloroethylene	ND	25
109-99-9	Tetrahydrofuran	ND	25
108-88-3	Toluene	ND	25
156-60-5	Trans-1,2-Dichloroethylene	ND	25
79-01-6	Trichloroethylene	180	25
75-69-4	Trichlorofluoromethane	ND	25
108-05-4	Vinyl Acetate	ND	25
75-01-4	Vinyl Chloride	130	25
10061-01-5	c-1,3-dichloropropene	ND	25
156-59-2	cis-1,2-Dichloroethylene	1200	25
10061-02-6	t-1,3-Dichloropropene	ND	25

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	131	81 - 153
Toluene-D8	112	83 - 118
1,4-Bromofluorobenzene	96	63 - 112

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

Laboratory Blank for \$VOAMW

Client Sample ID: N/A  
Date of Collection: N/A  
Date of Extraction: 7/1/04  
Date of Analysis: 7/1/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: N/A  
Matrix: Water  
Volume Purged: 5.0 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	48	74 - 136
Toluene-D8	38	85 - 118
1,4-Bromofluorobenzene	34	79 - 111

Comments:



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

LABORATORY FORTIFIED BLANK (LFB) AND DUPLICATE (LFB Dup) RECOVERY

Fisherville Mill - Grafton, MA

COMPOUND	SPIKE ADDED ug/mL	LFB CONCENTRATION ug/mL	LFB RECOVERY %	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	50	61	122	60 - 140
1,1,1-Trichloroethane	50	67	134	60 - 140
1,1,2,2-Tetrachloroethane	50	56	112	60 - 140
1,1,2-Trichloro-1,2,2-Trifluoroeth	50	49	98	60 - 140
1,1,2-Trichloroethane	50	61	122	60 - 140
1,1-Dichloroethylene	50	61	122	7 - 148
1,1-Dichloropropene	50	61	122	60 - 140
1,1-dichloroethane	50	63	126	60 - 140
1,2,3-Trichlorobenzene	50	65	130	60 - 140
1,2,3-Trichloropropane	50	51	102	60 - 140
1,2,4-Trichlorobenzene	50	61	122	60 - 140
1,2,4-Trimethylbenzene	50	61	122	60 - 140
1,2-Dibromo-3-Chloropropane	50	57	114	60 - 140
1,2-Dibromoethane	50	57	114	60 - 140
1,2-Dichlorobenzene	50	61	122	60 - 140
1,2-Dichloroethane	50	63	126	60 - 140
1,2-Dichloropropane	50	55	110	60 - 140
1,3,5-Trimethylbenzene	50	61	122	60 - 140
1,3-Dichlorobenzene	50	61	122	60 - 140
1,3-Dichloropropane	50	58	116	60 - 140
1,4-Dichlorobenzene	50	60	120	60 - 140
2,2-Dichloropropane	50	68	136	60 - 140
2-Butanone (MEK)	50	56	112	60 - 140
2-Chlorotoluene	50	60	120	60 - 140
2-Hexanone	50	54	108	60 - 140
2-Propanone (acetone)	50	57	114	60 - 140
4-Chlorotoluene	50	60	120	60 - 140
4-Methyl-2-Pentanone(MIBK)	50	54	108	60 - 140
Acrylonitrile	50	48	96	60 - 140
Benzene	50	59	118	39 - 119
Bromobenzene	50	57	114	60 - 140
Bromochloromethane	50	55	110	60 - 140
Bromodichloromethane	50	67	134	60 - 140
Bromoform	50	51	102	60 - 140
Bromomethane	50	63	126	60 - 140
Carbon Disulfide	50	67	134	60 - 140
Carbon tetrachloride	50	71	142	60 - 140
Chlorobenzene	50	61	122	48 - 131
Chloroethane	50	59	118	60 - 140
Chloroform	50	63	126	60 - 140
Chloromethane	50	50	100	60 - 140
Dibromochloromethane	50	66	132	60 - 140
Dibromomethane	50	56	112	60 - 140
Dichlorodifluoromethane	50	41	82	60 - 140
Ethyl Ether	50	58	116	60 - 140
Ethylbenzene	50	55	110	60 - 140
Hexachlorobutadiene	50	65	130	60 - 140
Isopropylbenzene	50	57	114	60 - 140
M/P Xylene	50	120	240	60 - 140
Methyl-t-Butyl Ether	50	58	116	60 - 140

	50	52	124	60 - 140
N-Butylbenzene	50	62	124	60 - 140
N-Propylbenzene	50	55	110	60 - 140
Naphthalene	50	65	130	60 - 140
Ortho Xylene	50	60	120	60 - 140
Para-Isopropyltoluene	50	58	116	60 - 140
Sec-Butylbenzene	50	59	118	60 - 140
Styrene	50	67	134	60 - 140
Tert-Butylbenzene	50	64	128	60 - 140
Tetrachloroethylene	50	49	98	60 - 140
Tetrahydrofuran	50	54	108	60 - 140
Toluene	50	61	122	43 - 136
Trans-1,2-Dichloroethylene	50	62	124	60 - 140
Trichloroethylene	50	56	112	37 - 130
Trichlorofluoromethane	50	69	138	60 - 140
Vinyl Acetate	50	73	146	60 - 140
Vinyl Chloride	50	60	120	60 - 140
c-1,3-dichloropropene	50	68	136	60 - 140
cis-1,2-Dichloroethylene	50	58	116	60 - 140
t-1,3-Dichloropropene	50	72	144	60 - 140

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	51.5	103	17	40
1,1,1-Trichloroethane	54.0	108	22	16
1,1,2,2-Tetrachloroethane	56.2	112	0	40
1,1,2-Trichloro-1,2,2-Trifluo	37.5	75	27	40
1,1,2-Trichloroethane	56.5	113	8	40
1,1-Dichloroethylene	47.7	95	25	35
1,1-Dichloropropene	49.2	98	21	40
1,1-dichloroethane	53.3	107	17	40
1,2,3-Trichlorobenzene	60.3	121	8	40
1,2,3-Trichloropropane	52.8	106	4	40
1,2,4-Trichlorobenzene	53.4	107	13	40
1,2,4-Trimethylbenzene	53.9	108	12	40
1,2-Dibromo-3-Chloropropa	54.3	109	5	40
1,2-Dibromoethane	54.5	109	5	40
1,2-Dichlorobenzene	51.9	104	16	40
1,2-Dichloroethane	60.9	122	3	23
1,2-Dichloropropane	48.6	97	12	40
1,3,5-Trimethylbenzene	54.9	110	11	40
1,3-Dichlorobenzene	50.2	100	19	40
1,3-Dichloropropane	54.8	110	6	40
1,4-Dichlorobenzene	51.2	102	16	21
2,2-Dichloropropane	37.3	75	58	40
2-Butanone (MEK)	59.0	118	5	40
2-Chlorotoluene	48.2	96	22	40
2-Hexanone	60.7	121	12	40
2-Propanone (acetone)	62.8	126	10	40
4-Chlorotoluene	54.5	109	10	40
4-Methyl-2-Pentanone(MIB	61.0	122	12	40
Acrylonitrile	57.2	114	18	40
Benzene	52.6	105	12	14
Bromobenzene	48.4	97	16	40
Bromochloromethane	49.9	100	10	40
Bromodichloromethane	56.2	112	18	21
Bromoform	45.1	90	12	40
Bromomethane	54.5	109	15	40
Carbon Disulfide	47.0	94	35	40
Carbon tetrachloride	54.8	110	26	19
Chlorobenzene	52.7	105	15	40
Chloroethane	50.8	102	15	40
Chloroform	55.6	111	13	16
Chloromethane	42.1	84	17	40
Dibromochloromethane	56.5	113	16	36
Dibromomethane	54.6	109	3	40
Dichlorodifluoromethane	36.0	72	13	40
Ethyl Ether	56.1	112	3	40
Ethylbenzene	53.0	106	4	40
Hexachlorobutadiene	48.0	96	30	40
Isopropylbenzene	52.8	106	8	40
M/P Xylene	106.1	212	12	40
Methyl-t-Butyl Ether	56.8	114	2	40
Methylene Chloride	56.7	113	9	40
N-Butylbenzene	52.7	105	16	40
N-Propylbenzene	49.7	99	10	40
Naphthalene	68.7	137	6	40
Ortho Xylene	50.2	100	18	40

Para-Isopropyltoluene	54.3	107	8	40
Sec-Butylbenzene	54.1	108	9	40
Styrene	56.3	113	17	40
Tert-Butylbenzene	52.8	106	19	40
Tetrachloroethylene	38.4	77	24	40
Tetrahydrofuran	57.2	114	6	40
Toluene	56.2	112	8	40
Trans-1,2-Dichloroethylene	50.2	100	21	40
Trichloroethylene	46.4	93	19	22
Trichlorofluoromethane	54.8	110	23	40
Vinyl Acetate	70.2	140	4	40
Vinyl Chloride	48.4	97	21	19
c-1,3-dichloropropene	55.3	111	21	40
cis-1,2-Dichloroethylene	49.5	99	16	40
t-1,3-Dichloropropene	59.2	118	20	40

Samples in Batch: AA41611 AA41612 AA41613 AA41616

Comments:

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

VOA MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Fisherville Mill - Grafton, MA

Sample ID: AA41616

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	500	ND	470	94	70 - 130
1,1,1-Trichloroethane	500	ND	520	104	56 - 145
1,1,2,2-Tetrachloroethane	500	ND	530	106	70 - 130
1,1,2-Trichloro-1,2,2-Trifluoro	500	ND	380	75	70 - 130
1,1,2-Trichloroethane	500	ND	520	105	70 - 130
1,1-Dichloroethylene	500	ND	480	95	81 - 139
1,1-Dichloropropene	500	ND	490	97	70 - 130
1,1-dichloroethane	500	ND	510	103	70 - 130
1,2,3-Trichlorobenzene	500	ND	560	112	70 - 130
1,2,3-Trichloropropane	500	ND	470	93	70 - 130
1,2,4-Trichlorobenzene	500	ND	490	99	70 - 130
1,2,4-Trimethylbenzene	500	ND	520	105	70 - 130
1,2-Dibromo-3-Chloropropane	500	ND	470	93	70 - 130
1,2-Dibromoethane	500	ND	480	96	70 - 130
1,2-Dichlorobenzene	500	ND	520	103	70 - 130
1,2-Dichloroethane	500	ND	610	121	68 - 122
1,2-Dichloropropane	500	ND	450	90	70 - 130
1,3,5-Trimethylbenzene	500	ND	510	102	70 - 130
1,3-Dichlorobenzene	500	ND	490	98	70 - 130
1,3-Dichloropropane	500	ND	500	99	70 - 130
1,4-Dichlorobenzene	500	ND	510	101	72 - 118
2,2-Dichloropropane	500	ND	380	76	70 - 130
2-Butanone (MEK)	500	ND	580	117	70 - 130
2-Chlorotoluene	500	ND	480	96	70 - 130
2-Hexanone	500	ND	550	111	70 - 130
2-Propanone (acetone)	500	ND	610	122	70 - 130
4-Chlorotoluene	500	ND	520	103	70 - 130
4-Methyl-2-Pentanone(MIBK)	500	ND	560	113	70 - 130
Acrylonitrile	500	ND	490	98	70 - 130
Benzene	500	ND	510	103	85 - 124
Bromobenzene	500	ND	480	96	70 - 130
Bromochloromethane	500	ND	470	95	70 - 130
Bromodichloromethane	500	ND	520	104	64 - 130
Bromoform	500	ND	420	85	54 - 112
Bromomethane	500	ND	530	105	70 - 130
Carbon Disulfide	500	ND	490	99	70 - 130
Carbon tetrachloride	500	ND	530	106	73 - 130
Chlorobenzene	500	ND	540	108	70 - 130
Chloroethane	500	ND	540	107	70 - 130
Chloroform	500	ND	540	107	67 - 134
Chloromethane	500	ND	460	92	70 - 130
Dibromochloromethane	500	ND	510	101	58 - 123
Dibromomethane	500	ND	510	102	70 - 130
Dichlorodifluoromethane	500	ND	360	72	70 - 130

Ethylbenzene	500	ND	550	111	70 - 130
Hexachlorobutadiene	500	ND	470	94	70 - 130
Isopropylbenzene	500	ND	500	101	70 - 130
M/P Xylene	1000	ND	1100	107	70 - 130
Methyl-t-Butyl Ether	500	ND	550	109	70 - 130
Methylene Chloride	500	ND	540	109	70 - 130
N-Butylbenzene	500	ND	500	101	70 - 130
N-Propylbenzene	500	ND	520	104	70 - 130
Naphthalene	500	ND	570	114	70 - 130
Ortho Xylene	500	ND	500	100	70 - 130
Para-Isopropyltoluene	500	ND	510	102	70 - 130
Sec-Butylbenzene	500	ND	550	110	70 - 130
Styrene	500	ND	540	108	70 - 130
Tert-Butylbenzene	500	ND	500	101	70 - 130
Tetrachloroethylene	500	ND	410	83	70 - 130
Tetrahydrofuran	500	ND	560	112	70 - 130
Toluene	500	ND	570	114	70 - 130
Trans-1,2-Dichloroethylene	500	ND	490	99	70 - 130
Trichloroethylene	500	180	650	94	67 - 129
Trichlorofluoromethane	500	ND	610	121	70 - 130
Vinyl Acetate	500	ND	650	129	70 - 130
Vinyl Chloride	500	130	640	101	61 - 160
c-1,3-dichloropropene	500	ND	470	95	70 - 130
cis-1,2-Dichloroethylene	500	1200	1700	90	70 - 130
t-1,3-Dichloropropene	500	ND	510	102	70 - 130

Comments:

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	500	530	106	12	40
1,1,1-Trichloroethane	500	600	120	14	16
1,1,2,2-Tetrachloroethane	500	560	112	6	40
1,1,2-Trichloro-1,2,2-Trif	500	420	85	12	40
1,1,2-Trichloroethane	500	600	119	13	40
1,1-Dichloroethylene	500	580	116	20	35
1,1-Dichloropropene	500	580	115	17	40
1,1-dichloroethane	500	580	116	12	40
1,2,3-Trichlorobenzene	500	640	127	13	40
1,2,3-Trichloropropane	500	520	103	10	40
1,2,4-Trichlorobenzene	500	570	115	15	40
1,2,4-Trimethylbenzene	500	620	124	17	40
1,2-Dibromo-3-Chloropro	500	480	96	3	40
1,2-Dibromoethane	500	530	105	9	40
1,2-Dichlorobenzene	500	570	113	9	40
1,2-Dichloroethane	500	660	132	9	23
1,2-Dichloropropane	500	510	101	12	40
1,3,5-Trimethylbenzene	500	600	120	16	40
1,3-Dichlorobenzene	500	560	113	14	40
1,3-Dichloropropane	500	560	112	12	40
1,4-Dichlorobenzene	500	570	114	12	21
2,2-Dichloropropane	500	460	92	19	40
2-Butanone (MEK)	500	580	115	2	40
2-Chlorotoluene	500	540	108	12	40
2-Hexanone	500	540	108	3	40
2-Propanone (acetone)	500	630	126	3	40
4-Chlorotoluene	500	600	120	15	40
4-Methyl-2-Pentanone(M	500	540	108	5	40
Acrylonitrile	500	510	101	3	40
Benzene	500	600	120	15	14
Bromobenzene	500	540	108	12	40
Bromochloromethane	500	540	108	13	40
Bromodichloromethane	500	570	113	8	21
Bromoform	500	450	90	6	40
Bromomethane	500	610	122	15	40
Carbon Disulfide	500	530	106	7	40
Carbon tetrachloride	500	650	129	20	19
Chlorobenzene	500	610	123	13	40
Chloroethane	500	600	120	12	40
Chloroform	500	590	119	11	16
Chloromethane	500	510	102	10	40
Dibromochloromethane	500	560	112	10	36
Dibromomethane	500	560	112	9	40
Dichlorodifluoromethane	500	400	81	11	40
Ethyl Ether	500	590	118	6	40
Ethylbenzene	500	640	128	14	40
Hexachlorobutadiene	500	580	115	20	40
Isopropylbenzene	500	600	119	16	40
M/P Xylene	1000	1200	120	12	40
Methyl-t-Butyl Ether	500	550	111	2	40
Methylene Chloride	500	620	123	12	40
N-Butylbenzene	500	590	119	16	40
N-Propylbenzene	500	620	125	18	40

Ortho Xylene	500	560	111	11	40
Para-Isopropyltoluene	500	600	120	16	40
Sec-Butylbenzene	500	640	127	14	40
Styrene	500	620	124	14	40
Tert-Butylbenzene	500	580	116	14	40
Tetrachloroethylene	500	440	89	7	40
Tetrahydrofuran	500	550	110	2	40
Toluene	500	650	131	14	40
Trans-1,2-Dichloroethyle	500	580	116	16	40
Trichloroethylene	500	730	111	17	22
Trichlorofluoromethane	500	660	132	9	40
Vinyl Acetate	500	660	131	2	40
Vinyl Chloride	500	720	118	16	19
c-1,3-dichloropropene	500	570	114	18	40
cis-1,2-Dichloroethylene	500	1900	136	41	40
t-1,3-Dichloropropene	500	550	110	8	40

Comments:

Samples in Batch: AA41611 AA41612 AA41613 AA41616



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Laboratory Duplicate Results

Fisherville Mill - Grafton, MA

Sample ID: AA41616

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	ND	30
1,1,1-Trichloroethane	ND	ND	ND	30
1,1,2,2-Tetrachloroethane	ND	ND	ND	30
1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	ND	ND	30
1,1,2-Trichloroethane	ND	ND	ND	30
1,1-Dichloroethylene	ND	ND	ND	30
1,1-Dichloropropene	ND	ND	ND	30
1,1-dichloroethane	ND	ND	ND	30
1,2,3-Trichlorobenzene	ND	ND	ND	30
1,2,3-Trichloropropane	ND	ND	ND	30
1,2,4-Trichlorobenzene	ND	ND	ND	30
1,2,4-Trimethylbenzene	ND	ND	ND	30
1,2-Dibromo-3-Chloropropane	ND	ND	ND	30
1,2-Dibromoethane	ND	ND	ND	30
1,2-Dichlorobenzene	ND	ND	ND	30
1,2-Dichloroethane	ND	ND	ND	30
1,2-Dichloropropane	ND	ND	ND	30
1,3,5-Trimethylbenzene	ND	ND	ND	30
1,3-Dichlorobenzene	ND	ND	ND	30
1,3-Dichloropropane	ND	ND	ND	30
1,4-Dichlorobenzene	ND	ND	ND	30
2,2-Dichloropropane	ND	ND	ND	30
2-Butanone (MEK)	ND	ND	ND	30
2-Chlorotoluene	ND	ND	ND	30
2-Hexanone	ND	ND	ND	30
2-Propanone (acetone)	ND	ND	ND	30
4-Chlorotoluene	ND	ND	ND	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	30
Acrylonitrile	ND	ND	ND	30
Benzene	ND	ND	ND	30
Bromobenzene	ND	ND	ND	30
Bromochloromethane	ND	ND	ND	30
Bromodichloromethane	ND	ND	ND	30
Bromoform	ND	ND	ND	30
Bromomethane	ND	ND	ND	30
Carbon Disulfide	ND	ND	ND	30
Carbon tetrachloride	ND	ND	ND	30
Chlorobenzene	ND	ND	ND	30
Chloroethane	ND	ND	ND	30
Chloroform	ND	ND	ND	30
Chloromethane	ND	ND	ND	30
Dibromochloromethane	ND	ND	ND	30
Dibromomethane	ND	ND	ND	30
Dichlorodifluoromethane	ND	ND	ND	30
Ethyl Ether	ND	ND	ND	30
Ethylbenzene	ND	ND	ND	30
Hexachlorobutadiene	ND	ND	ND	30
Isopropylbenzene	ND	ND	ND	30
M/P Xylene	ND	ND	ND	30
Methyl-t-Butyl Ether	ND	ND	ND	30
Methylene Chloride	ND	ND	ND	30

N-Propylbenzene	ND	ND	ND	30
Naphthalene	ND	ND	ND	30
Ortho Xylene	ND	ND	ND	30
Para-Isopropyltoluene	ND	ND	ND	30
Sec-Butylbenzene	ND	ND	ND	30
Styrene	ND	ND	ND	30
Tert-Butylbenzene	ND	ND	ND	30
Tetrachloroethylene	ND	ND	ND	30
Tetrahydrofuran	ND	ND	ND	30
Toluene	ND	ND	ND	30
Trans-1,2-Dichloroethylene	ND	ND	ND	30
Trichloroethylene	175.6	190	7.88	30
Trichlorofluoromethane	ND	ND	ND	30
Vinyl Acetate	ND	ND	ND	30
Vinyl Chloride	131.1	152	14.8	30
c-1,3-dichloropropene	ND	ND	ND	30
cis-1,2-Dichloroethylene	1214.0	1280	5.29	30
t-1,3-Dichloropropene	ND	ND	ND	30



United States Environmental Protection Agency  
Office of Environmental Measurement & Evaluation  
11 Technology Drive  
North Chelmsford, MA 01863-2431

Laboratory Report

July 09, 2004

Mrs Janis Tsang - HBR  
USEPA New England, Region 1  
One Congress Street  
Boston, MA 02114 - 2023

Project Number: 04060045  
Project: Fisherville Mill - Grafton, MA  
Analysis: VOAs in Water  
Analyst: Dan Boudreau *DB*  
*7/9/04*

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-VOAGCMS7.

Samples were analyzed by GC/MS. Samples were introduced to the GC via a Tekmar pre-concentrator and an Archon autosampler. The analysis SOP is based on US EPA Method 8260B, SW-846, Rev 2.0, 1996. Method 624, 40CFR Part 136 Appendix A, July 1, 1992, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Date Samples Received by the Laboratory: 6/30/04

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8333.

Sincerely

*Dr. William J. Andrade* *07/15/04*  
Dr. William J. Andrade  
Advanced Analytical Chemistry Specialist

ND = Reporting limit

ND = Not Detected above Reporting limit

NA = Not Applicable due to high sample dilutions or sample interferences

NC = Not calculated since analyte concentration is ND.

J = Estimated value

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 5 times the concentration in the blank.

R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15663  
Date of Collection: 6/30/2004  
Date of Extraction: 7/7/04  
Date of Analysis: 7/7/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41647  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 5000  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	5000	
71-55-6	1,1,1-Trichloroethane	ND	5000	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5000	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	5000	
79-00-5	1,1,2-Trichloroethane	ND	5000	
75-35-4	1,1-Dichloroethylene	ND	5000	
563-58-6	1,1-Dichloropropene	ND	5000	
75-34-3	1,1-dichloroethane	ND	5000	
87-61-6	1,2,3-Trichlorobenzene	ND	5000	
96-18-4	1,2,3-Trichloropropane	ND	5000	
120-82-1	1,2,4-Trichlorobenzene	ND	5000	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	5000	
106-93-4	1,2-Dibromoethane	ND	5000	
95-50-1	1,2-Dichlorobenzene	ND	5000	
107-06-2	1,2-Dichloroethane	ND	5000	
78-87-5	1,2-Dichloropropane	ND	5000	
108-67-8	1,3,5-Trimethylbenzene	ND	5000	
541-73-1	1,3-Dichlorobenzene	ND	5000	
142-28-9	1,3-Dichloropropane	ND	5000	
106-46-7	1,4-Dichlorobenzene	ND	5000	
594-20-7	2,2-Dichloropropane	ND	5000	
78-93-3	2-Butanone (MEK)	ND	5000	
95-49-8	2-Chlorotoluene	ND	5000	
591-78-6	2-Hexanone	ND	5000	
67-64-1	2-Propanone (acetone)	ND	5000	
106-43-4	4-Chlorotoluene	ND	5000	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	5000	
107-13-1	Acrylonitrile	ND	5000	
71-43-2	Benzene	ND	5000	
108-86-1	Bromobenzene	ND	5000	
74-97-5	Bromochloromethane	ND	5000	
75-27-4	Bromodichloromethane	ND	5000	
75-25-2	Bromoform	ND	5000	
74-83-9	Bromomethane	ND	5000	
75-15-0	Carbon Disulfide	ND	5000	
56-23-5	Carbon tetrachloride	ND	5000	
108-90-7	Chlorobenzene	ND	5000	
75-00-3	Chloroethane	ND	5000	
67-66-3	Chloroform	ND	5000	

124-48-1	Dibromochloromethane	ND	5000
74-95-3	Dibromomethane	ND	5000
75-71-8	Dichlorodifluoromethane	ND	5000
60-29-7	Ethyl Ether	ND	5000
100-41-4	Ethylbenzene	ND	5000
87-68-3	Hexachlorobutadiene	ND	5000
98-82-8	Isopropylbenzene	ND	5000
108-38-3/106-42-	M/P Xylene	ND	10000
1634-04-4	Methyl-t-Butyl Ether	ND	5000
75-09-2	Methylene Chloride	ND	5000
104-51-8	N-Butylbenzene	ND	5000
103-65-1	N-Propylbenzene	ND	5000
91-20-3	Naphthalene	ND	5000
95-47-6	Ortho Xylene	ND	5000
99-87-6	Para-Isopropyltoluene	ND	5000
135-98-8	Sec-Butylbenzene	ND	5000
100-42-5	Styrene	ND	5000
98-06-6	Tert-Butylbenzene	ND	5000
127-18-4	Tetrachloroethylene	ND	5000
109-99-9	Tetrahydrofuran	ND	5000
108-88-3	Toluene	ND	5000
156-60-5	Trans-1,2-Dichloroethylene	ND	5000
79-01-6	Trichloroethylene	55000	10000
75-69-4	Trichlorofluoromethane	ND	5000
108-05-4	Vinyl Acetate	ND	5000
75-01-4	Vinyl Chloride	ND	5000
10061-01-5	c-1,3-dichloropropene	ND	5000
156-59-2	cis-1,2-Dichloroethylene	ND	5000
10061-02-6	t-1,3-Dichloropropene	ND	5000

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	112	81 - 153
Toluene-D8	100	83 - 118
1,4-Bromofluorobenzene	91	63 - 112

Comments: There is 1.4 ppb TCE present in the blank as a result of running MW101A undiluted. The RL for TCE is raised to 2.0 for this project.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15664  
Date of Collection: 6/30/2004  
Date of Extraction: 7/7/04  
Date of Analysis: 7/7/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41648  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 5000  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	5000	
71-55-6	1,1,1-Trichloroethane	ND	5000	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5000	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	5000	
79-00-5	1,1,2-Trichloroethane	ND	5000	
75-35-4	1,1-Dichloroethylene	ND	5000	
563-58-6	1,1-Dichloropropene	ND	5000	
75-34-3	1,1-dichloroethane	ND	5000	
87-61-6	1,2,3-Trichlorobenzene	ND	5000	
96-18-4	1,2,3-Trichloropropane	ND	5000	
120-82-1	1,2,4-Trichlorobenzene	ND	5000	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	5000	
106-93-4	1,2-Dibromoethane	ND	5000	
95-50-1	1,2-Dichlorobenzene	ND	5000	
107-06-2	1,2-Dichloroethane	ND	5000	
78-87-5	1,2-Dichloropropane	ND	5000	
108-67-8	1,3,5-Trimethylbenzene	ND	5000	
541-73-1	1,3-Dichlorobenzene	ND	5000	
142-28-9	1,3-Dichloropropane	ND	5000	
106-46-7	1,4-Dichlorobenzene	ND	5000	
594-20-7	2,2-Dichloropropane	ND	5000	
78-93-3	2-Butanone (MEK)	ND	5000	
95-49-8	2-Chlorotoluene	ND	5000	
591-78-6	2-Hexanone	ND	5000	
67-64-1	2-Propanone (acetone)	ND	5000	
106-43-4	4-Chlorotoluene	ND	5000	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	5000	
107-13-1	Acrylonitrile	ND	5000	
71-43-2	Benzene	ND	5000	
108-86-1	Bromobenzene	ND	5000	
74-97-5	Bromochloromethane	ND	5000	
75-27-4	Bromodichloromethane	ND	5000	
75-25-2	Bromoform	ND	5000	
74-83-9	Bromomethane	ND	5000	
75-15-0	Carbon Disulfide	ND	5000	
56-23-5	Carbon tetrachloride	ND	5000	
108-90-7	Chlorobenzene	ND	5000	
75-00-3	Chloroethane	ND	5000	
67-66-3	Chloroform	ND	5000	

124-48-1	Dibromochloromethane	ND	5000
74-95-3	Dibromomethane	ND	5000
75-71-8	Dichlorodifluoromethane	ND	5000
60-29-7	Ethyl Ether	ND	5000
100-41-4	Ethylbenzene	ND	5000
87-68-3	Hexachlorobutadiene	ND	5000
98-82-8	Isopropylbenzene	ND	5000
108-38-3/106-42-	M/P Xylene	ND	10000
1634-04-4	Methyl-t-Butyl Ether	ND	5000
75-09-2	Methylene Chloride	ND	5000
104-51-8	N-Butylbenzene	ND	5000
103-65-1	N-Propylbenzene	ND	5000
91-20-3	Naphthalene	ND	5000
95-47-6	Ortho Xylene	ND	5000
99-87-6	Para-Isopropyltoluene	ND	5000
135-98-8	Sec-Butylbenzene	ND	5000
100-42-5	Styrene	ND	5000
98-06-6	Tert-Butylbenzene	ND	5000
127-18-4	Tetrachloroethylene	ND	5000
109-99-9	Tetrahydrofuran	ND	5000
108-88-3	Toluene	ND	5000
156-60-5	Trans-1,2-Dichloroethylene	ND	5000
79-01-6	Trichloroethylene	120000	10000
75-69-4	Trichlorofluoromethane	ND	5000
108-05-4	Vinyl Acetate	ND	5000
75-01-4	Vinyl Chloride	ND	5000
10061-01-5	c-1,3-dichloropropene	ND	5000
156-59-2	cis-1,2-Dichloroethylene	ND	5000
10061-02-6	t-1,3-Dichloropropene	ND	5000

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	102	81 - 153
Toluene-D8	99	83 - 118
1,4-Bromofluorobenzene	92	63 - 112

Comments: There is 1.4 ppb TCE present in the blank as a result of running MW101A undiluted. The RL for TCE is raised to 2.0 for this project.



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

Laboratory Blank for \$VOAMW

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Water
Date of Extraction:	7/7/04	Volume Purged:	5.0 mL
Date of Analysis:	7/7/04	Percent Solids:	N/A
Dry Weight Extracted:	N/A	Extract Dilution:	1
Wet Weight Extracted:	N/A	pH:	6

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

07-00-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	2.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	106	74 - 136
Toluene-D8	99	85 - 118
1,4-Bromofluorobenzene	92	79 - 111

Comments: The TCE present in this blank is a result of running MW101A undiluted. The RL for TCE is raised to 2.0 for this project.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Fisherville Mill - Grafton, MA

VOAs in Water

Client Sample ID: D15677  
Date of Collection: 6/30/2004  
Date of Extraction: 7/7/04  
Date of Analysis: 7/7/04  
Dry Weight Extracted: N/A  
Wet Weight Extracted: N/A

Lab Sample ID: AA41651  
Matrix: Water  
Volume Purged: 5 mL  
Percent Solids: N/A  
Extract Dilution: 1  
pH: <2

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
71-43-2	Benzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
75-25-2	Bromoform	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
67-66-3	Chloroform	ND	1.0	

74-87-3	Chloromethane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
75-71-8	Dichlorodifluoromethane	ND	1.0
60-29-7	Ethyl Ether	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
98-82-8	Isopropylbenzene	ND	1.0
108-38-3/106-42-	M/P Xylene	ND	2.0
1634-04-4	Methyl-t-Butyl Ether	ND	1.0
75-09-2	Methylene Chloride	ND	1.0
104-51-8	N-Butylbenzene	ND	1.0
103-65-1	N-Propylbenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
95-47-6	Ortho Xylene	ND	1.0
99-87-6	Para-Isopropyltoluene	ND	1.0
135-98-8	Sec-Butylbenzene	ND	1.0
100-42-5	Styrene	ND	1.0
98-06-6	Tert-Butylbenzene	ND	1.0
127-18-4	Tetrachloroethylene	ND	1.0
109-99-9	Tetrahydrofuran	ND	1.0
108-88-3	Toluene	ND	1.0
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0
79-01-6	Trichloroethylene	ND	2.0
75-69-4	Trichlorofluoromethane	ND	1.0
108-05-4	Vinyl Acetate	ND	1.0
75-01-4	Vinyl Chloride	ND	1.0
10061-01-5	c-1,3-dichloropropene	ND	1.0
156-59-2	cis-1,2-Dichloroethylene	ND	1.0
10061-02-6	t-1,3-Dichloropropene	ND	1.0

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	108	81 - 153
Toluene-D8	100	83 - 118
1,4-Bromofluorobenzene	89	63 - 112

Comments: There is 1.4 ppb TCE present in the blank as a result of running MW101A undiluted. The RL for TCE is raised to 2.0 for this project.

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

VOA MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Fisherville Mill - Grafton, MA

Sample ID: AA41648

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	100000	ND	110000	114	70 - 130
1,1,1-Trichloroethane	100000	ND	110000	110	56 - 145
1,1,2,2-Tetrachloroethane	100000	ND	110000	110	70 - 130
1,1,2-Trichloro-1,2,2-Trifluoro	100000	ND	77000	77	70 - 130
1,1,2-Trichloroethane	100000	ND	110000	115	70 - 130
1,1-Dichloroethylene	100000	ND	110000	111	81 - 139
1,1-Dichloropropene	100000	ND	110000	108	70 - 130
1,1-dichloroethane	100000	ND	110000	108	70 - 130
1,2,3-Trichlorobenzene	100000	ND	100000	103	70 - 130
1,2,3-Trichloropropane	100000	ND	91000	91	70 - 130
1,2,4-Trichlorobenzene	100000	ND	110000	107	70 - 130
1,2,4-Trimethylbenzene	100000	ND	120000	116	70 - 130
1,2-Dibromo-3-Chloropropane	100000	ND	68000	68	70 - 130
1,2-Dibromoethane	100000	ND	110000	107	70 - 130
1,2-Dichlorobenzene	100000	ND	110000	114	70 - 130
1,2-Dichloroethane	100000	ND	110000	108	68 - 122
1,2-Dichloropropane	100000	ND	100000	102	70 - 130
1,3,5-Trimethylbenzene	100000	ND	110000	112	70 - 130
1,3-Dichlorobenzene	100000	ND	110000	113	70 - 130
1,3-Dichloropropane	100000	ND	110000	109	70 - 130
1,4-Dichlorobenzene	100000	ND	110000	111	72 - 118
2,2-Dichloropropane	100000	ND	88000	88	70 - 130
2-Butanone (MEK)	100000	ND	94000	94	70 - 130
2-Chlorotoluene	100000	ND	110000	109	70 - 130
2-Hexanone	100000	ND	100000	101	70 - 130
2-Propanone (acetone)	100000	ND	110000	115	70 - 130
4-Chlorotoluene	100000	ND	110000	111	70 - 130
4-Methyl-2-Pentanone(MIBK)	100000	ND	100000	102	70 - 130
Acrylonitrile	100000	ND	110000	106	70 - 130
Benzene	100000	ND	120000	117	85 - 124
Bromobenzene	100000	ND	110000	109	70 - 130
Bromochloromethane	100000	ND	110000	110	70 - 130
Bromodichloromethane	100000	ND	120000	115	64 - 130
Bromoform	100000	ND	89000	89	54 - 112
Bromomethane	100000	ND	110000	109	70 - 130
Carbon Disulfide	100000	ND	110000	109	70 - 130
Carbon tetrachloride	100000	ND	95000	95	73 - 130
Chlorobenzene	100000	ND	120000	124	70 - 130
Chloroethane	100000	ND	100000	105	70 - 130
Chloroform	100000	ND	110000	114	67 - 134
Chloromethane	100000	ND	100000	103	70 - 130
Dibromochloromethane	100000	ND	89000	89	58 - 123
Dibromomethane	100000	ND	110000	109	70 - 130
Dichlorodifluoromethane	100000	ND	70000	70	70 - 130

Ethylbenzene	100000	ND	120000	122	70 - 130
Hexachlorobutadiene	100000	ND	110000	111	70 - 130
Isopropylbenzene	100000	ND	110000	110	70 - 130
M/P Xylene	200000	ND	230000	117	70 - 130
Methyl-t-Butyl Ether	100000	ND	100000	100	70 - 130
Methylene Chloride	100000	ND	110000	113	70 - 130
N-Butylbenzene	100000	ND	110000	110	70 - 130
N-Propylbenzene	100000	ND	120000	118	70 - 130
Naphthalene	100000	ND	100000	103	70 - 130
Ortho Xylene	100000	ND	110000	110	70 - 130
Para-Isopropyltoluene	100000	ND	110000	112	70 - 130
Sec-Butylbenzene	100000	ND	120000	116	70 - 130
Styrene	100000	ND	110000	111	70 - 130
Tert-Butylbenzene	100000	ND	110000	109	70 - 130
Tetrachloroethylene	100000	ND	110000	114	70 - 130
Tetrahydrofuran	100000	ND	100000	100	70 - 130
Toluene	100000	ND	110000	115	70 - 130
Trans-1,2-Dichloroethylene	100000	ND	120000	122	70 - 130
Trichloroethylene	100000	120000	220000	102	67 - 129
Trichlorofluoromethane	100000	ND	110000	107	70 - 130
Vinyl Acetate	100000	ND	110000	108	70 - 130
Vinyl Chloride	100000	ND	110000	109	61 - 160
c-1,3-dichloropropene	100000	ND	86000	86	70 - 130
cis-1,2-Dichloroethylene	100000	ND	110000	109	70 - 130
t-1,3-Dichloropropene	100000	ND	83000	84	70 - 130

Comments:

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	100000	100000	102	11	40
1,1,1-Trichloroethane	100000	110000	108	2	16
1,1,2,2-Tetrachloroethane	100000	110000	107	3	40
1,1,2-Trichloro-1,2,2-Trif	100000	120000	119	43	40
1,1,2-Trichloroethane	100000	100000	105	9	40
1,1-Dichloroethylene	100000	120000	119	7	35
1,1-Dichloropropene	100000	110000	113	5	40
1,1-dichloroethane	100000	110000	106	2	40
1,2,3-Trichlorobenzene	100000	100000	101	2	40
1,2,3-Trichloropropane	100000	92000	92	1	40
1,2,4-Trichlorobenzene	100000	100000	104	3	40
1,2,4-Trimethylbenzene	100000	110000	113	3	40
1,2-Dibromo-3-Chloropro	100000	67000	67	2	40
1,2-Dibromoethane	100000	100000	101	6	40
1,2-Dichlorobenzene	100000	110000	106	7	40
1,2-Dichloroethane	100000	100000	105	3	23
1,2-Dichloropropane	100000	99000	99	3	40
1,3,5-Trimethylbenzene	100000	110000	111	1	40
1,3-Dichlorobenzene	100000	110000	106	6	40
1,3-Dichloropropane	100000	100000	101	8	40
1,4-Dichlorobenzene	100000	100000	103	7	21
2,2-Dichloropropane	100000	91000	91	4	40
2-Butanone (MEK)	100000	89000	89	5	40
2-Chlorotoluene	100000	110000	107	2	40
2-Hexanone	100000	97000	97	4	40
2-Propanone (acetone)	100000	110000	106	8	40
4-Chlorotoluene	100000	110000	105	6	40
4-Methyl-2-Pentanone(M	100000	97000	97	5	40
Acrylonitrile	100000	100000	100	6	40
Benzene	100000	110000	112	4	14
Bromobenzene	100000	100000	102	7	40
Bromochloromethane	100000	110000	108	2	40
Bromodichloromethane	100000	100000	103	11	21
Bromoform	100000	85000	85	5	40
Bromomethane	100000	110000	112	3	40
Carbon Disulfide	100000	110000	105	4	40
Carbon tetrachloride	100000	97000	97	3	19
Chlorobenzene	100000	110000	105	17	40
Chloroethane	100000	120000	116	10	40
Chloroform	100000	110000	108	5	16
Chloromethane	100000	110000	107	4	40
Dibromochloromethane	100000	82000	82	8	36
Dibromomethane	100000	100000	100	9	40
Dichlorodifluoromethane	100000	110000	108	42	40
Ethyl Ether	100000	110000	105	8	40
Ethylbenzene	100000	120000	119	2	40
Hexachlorobutadiene	100000	110000	110	1	40
Isopropylbenzene	100000	110000	109	1	40
M/P Xylene	200000	220000	112	4	40
Methyl-t-Butyl Ether	100000	93000	93	7	40
Methylene Chloride	100000	110000	107	5	40
N-Butylbenzene	100000	110000	108	2	40
N-Propylbenzene	100000	120000	118	0	40

napthalene	100000	100000	102	1	40
Ortho Xylene	100000	110000	108	2	40
Para-Isopropyltoluene	100000	110000	111	1	40
Sec-Butylbenzene	100000	120000	118	2	40
Styrene	100000	100000	104	7	40
Tert-Butylbenzene	100000	110000	109	0	40
Tetrachloroethylene	100000	110000	114	0	40
Tetrahydrofuran	100000	92000	92	8	40
Toluene	100000	120000	115	0	40
Trans-1,2-Dichloroethyle	100000	110000	115	6	40
Trichloroethylene	100000	230000	105	3	22
Trichlorofluoromethane	100000	130000	131	20	40
Vinyl Acetate	100000	100000	101	7	40
Vinyl Chloride	100000	110000	115	5	19
c-1,3-dichloropropene	100000	82000	82	5	40
cis-1,2-Dichloroethylene	100000	110000	107	2	40
t-1,3-Dichloropropene	100000	79000	79	6	40

Comments:

Samples in Batch: AA41647 AA41648 AA41651



US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

Laboratory Duplicate Results

Fisherville Mill - Grafton, MA

Sample ID: AA41648

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	ND	30
1,1,1-Trichloroethane	ND	ND	ND	30
1,1,2,2-Tetrachloroethane	ND	ND	ND	30
1,1,2-Trichloro-1,2,2-Trifluoroeth	ND	ND	ND	30
1,1,2-Trichloroethane	ND	ND	ND	30
1,1-Dichloroethylene	ND	ND	ND	30
1,1-Dichloropropene	ND	ND	ND	30
1,1-dichloroethane	ND	ND	ND	30
1,2,3-Trichlorobenzene	ND	ND	ND	30
1,2,3-Trichloropropane	ND	ND	ND	30
1,2,4-Trichlorobenzene	ND	ND	ND	30
1,2,4-Trimethylbenzene	ND	ND	ND	30
1,2-Dibromo-3-Chloropropane	ND	ND	ND	30
1,2-Dibromoethane	ND	ND	ND	30
1,2-Dichlorobenzene	ND	ND	ND	30
1,2-Dichloroethane	ND	ND	ND	30
1,2-Dichloropropane	ND	ND	ND	30
1,3,5-Trimethylbenzene	ND	ND	ND	30
1,3-Dichlorobenzene	ND	ND	ND	30
1,3-Dichloropropane	ND	ND	ND	30
1,4-Dichlorobenzene	ND	ND	ND	30
2,2-Dichloropropane	ND	ND	ND	30
2-Butanone (MEK)	ND	ND	ND	30
2-Chlorotoluene	ND	ND	ND	30
2-Hexanone	ND	ND	ND	30
2-Propanone (acetone)	ND	ND	ND	30
4-Chlorotoluene	ND	ND	ND	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	30
Acrylonitrile	ND	ND	ND	30
Benzene	ND	ND	ND	30
Bromobenzene	ND	ND	ND	30
Bromochloromethane	ND	ND	ND	30
Bromodichloromethane	ND	ND	ND	30
Bromoform	ND	ND	ND	30
Bromomethane	ND	ND	ND	30
Carbon Disulfide	ND	ND	ND	30
Carbon tetrachloride	ND	ND	ND	30
Chlorobenzene	ND	ND	ND	30
Chloroethane	ND	ND	ND	30
Chloroform	ND	ND	ND	30
Chloromethane	ND	ND	ND	30
Dibromochloromethane	ND	ND	ND	30
Dibromomethane	ND	ND	ND	30
Dichlorodifluoromethane	ND	ND	ND	30
Ethyl Ether	ND	ND	ND	30
Ethylbenzene	ND	ND	ND	30
Hexachlorobutadiene	ND	ND	ND	30
Isopropylbenzene	ND	ND	ND	30
M/P Xylene	ND	ND	ND	30
Methyl-t-Butyl Ether	ND	ND	ND	30
Methylene Chloride	ND	ND	ND	30

N-Butylbenzene	ND	ND	ND	30
N-Propylbenzene	ND	ND	ND	30
Naphthalene	ND	ND	ND	30
Ortho Xylene	ND	ND	ND	30
Para-Isopropyltoluene	ND	ND	ND	30
Sec-Butylbenzene	ND	ND	ND	30
Styrene	ND	ND	ND	30
Tert-Butylbenzene	ND	ND	ND	30
Tetrachloroethylene	ND	ND	ND	30
Tetrahydrofuran	ND	ND	ND	30
Toluene	ND	ND	ND	30
Trans-1,2-Dichloroethylene	ND	ND	ND	30
Trichloroethylene	120824.5	119000	1.52	30
Trichlorofluoromethane	ND	ND	ND	30
Vinyl Acetate	ND	ND	ND	30
Vinyl Chloride	ND	ND	ND	30
c-1,3-dichloropropene	ND	ND	ND	30
cis-1,2-Dichloroethylene	ND	ND	ND	30
t-1,3-Dichloropropene	ND	ND	ND	30

US ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND LABORATORY

LABORATORY FORTIFIED BLANK (LFB) AND DUPLICATE (LFB Dup) RECOVERY

Fisherville Mill - Grafton, MA

COMPOUND	SPIKE ADDED ug/mL	LFB CONCENTRATION ug/mL	LFB RECOVERY %	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	50	57	114	60 - 140
1,1,1-Trichloroethane	50	61	122	60 - 140
1,1,2,2-Tetrachloroethane	50	53	106	60 - 140
1,1,2-Trichloro-1,2,2-Trifluoroeth	50	56	112	60 - 140
1,1,2-Trichloroethane	50	55	110	60 - 140
1,1-Dichloroethylene	50	57	114	7 - 148
1,1-Dichloropropene	50	60	120	60 - 140
1,1-dichloroethane	50	54	108	60 - 140
1,2,3-Trichlorobenzene	50	50	100	60 - 140
1,2,3-Trichloropropane	50	46	92	60 - 140
1,2,4-Trichlorobenzene	50	54	108	60 - 140
1,2,4-Trimethylbenzene	50	60	120	60 - 140
1,2-Dibromo-3-Chloropropane	50	38	76	60 - 140
1,2-Dibromoethane	50	54	108	60 - 140
1,2-Dichlorobenzene	50	54	108	60 - 140
1,2-Dichloroethane	50	52	104	60 - 140
1,2-Dichloropropane	50	51	102	60 - 140
1,3,5-Trimethylbenzene	50	60	120	60 - 140
1,3-Dichlorobenzene	50	56	112	60 - 140
1,3-Dichloropropane	50	52	104	60 - 140
1,4-Dichlorobenzene	50	53	106	60 - 140
2,2-Dichloropropane	50	60	120	60 - 140
2-Butanone (MEK)	50	43	86	60 - 140
2-Chlorotoluene	50	56	112	60 - 140
2-Hexanone	50	50	100	60 - 140
2-Propanone (acetone)	50	52	104	60 - 140
4-Chlorotoluene	50	59	118	60 - 140
4-Methyl-2-Pentanone(MIBK)	50	50	100	60 - 140
Acrylonitrile	50	56	112	60 - 140
Benzene	50	56	112	39 - 119
Bromobenzene	50	54	108	60 - 140
Bromochloromethane	50	53	106	60 - 140
Bromodichloromethane	50	60	120	60 - 140
Bromoform	50	42	84	60 - 140
Bromomethane	50	58	116	60 - 140
Carbon Disulfide	50	58	116	60 - 140
Carbon tetrachloride	50	52	104	60 - 140
Chlorobenzene	50	56	112	48 - 131
Chloroethane	50	55	110	60 - 140
Chloroform	50	57	114	60 - 140
Chloromethane	50	53	106	60 - 140
Dibromochloromethane	50	45	90	60 - 140
Dibromomethane	50	52	104	60 - 140
Dichlorodifluoromethane	50	51	102	60 - 140
Ethyl Ether	50	51	102	60 - 140
Ethylbenzene	50	58	116	60 - 140
Hexachlorobutadiene	50	62	124	60 - 140
Isopropylbenzene	50	58	116	60 - 140
M/P Xylene	100	120	120	60 - 140
Methyl-t-Butyl Ether	50	50	100	60 - 140

N-Butylbenzene	50	62	110	60 - 140
N-Propylbenzene	50	57	114	60 - 140
Naphthalene	50	52	104	60 - 140
Ortho Xylene	50	57	114	60 - 140
Para-Isopropyltoluene	50	60	120	60 - 140
Sec-Butylbenzene	50	60	120	60 - 140
Styrene	50	55	110	60 - 140
Tert-Butylbenzene	50	61	122	60 - 140
Tetrachloroethylene	50	58	116	60 - 140
Tetrahydrofuran	50	46	92	60 - 140
Toluene	50	58	116	43 - 136
Trans-1,2-Dichloroethylene	50	58	116	60 - 140
Trichloroethylene	50	63	126	37 - 130
Trichlorofluoromethane	50	63	126	60 - 140
Vinyl Acetate	50	58	116	60 - 140
Vinyl Chloride	50	55	110	60 - 140
c-1,3-dichloropropene	50	49	98	60 - 140
cis-1,2-Dichloroethylene	50	56	112	60 - 140
t-1,3-Dichloropropene	50	49	98	60 - 140

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	52.3	105	9	40
1,1,1-Trichloroethane	53.1	106	14	16
1,1,2,2-Tetrachloroethane	51.2	102	4	40
1,1,2-Trichloro-1,2,2-Trifluo	55.1	110	2	40
1,1,2-Trichloroethane	50.7	101	8	40
1,1-Dichloroethylene	50.8	102	12	35
1,1-Dichloropropene	53.1	106	12	40
1,1-dichloroethane	50.0	100	8	40
1,2,3-Trichlorobenzene	47.3	95	6	40
1,2,3-Trichloropropane	43.6	87	5	40
1,2,4-Trichlorobenzene	50.9	102	6	40
1,2,4-Trimethylbenzene	55.5	111	8	40
1,2-Dibromo-3-Chloropropa	37.2	74	2	40
1,2-Dibromoethane	51.0	102	6	40
1,2-Dichlorobenzene	50.8	102	6	40
1,2-Dichloroethane	49.4	99	5	23
1,2-Dichloropropane	48.5	97	5	40
1,3,5-Trimethylbenzene	54.1	108	10	40
1,3-Dichlorobenzene	51.5	103	8	40
1,3-Dichloropropane	50.1	100	4	40
1,4-Dichlorobenzene	48.2	96	10	21
2,2-Dichloropropane	47.7	95	23	40
2-Butanone (MEK)	44.2	88	3	40
2-Chlorotoluene	50.1	100	11	40
2-Hexanone	53.1	106	6	40
2-Propanone (acetone)	49.1	98	6	40
4-Chlorotoluene	52.6	105	12	40
4-Methyl-2-Pentanone(MIB	50.8	102	2	40
Acrylonitrile	47.0	94	18	40
Benzene	52.3	105	7	14
Bromobenzene	49.4	99	9	40
Bromochloromethane	47.7	95	11	40
Bromodichloromethane	54.3	109	10	21
Bromoform	38.5	77	9	40
Bromomethane	53.2	106	9	40
Carbon Disulfide	52.8	106	9	40
Carbon tetrachloride	45.5	91	13	19
Chlorobenzene	50.1	100	11	40
Chloroethane	50.6	101	8	40
Chloroform	51.1	102	11	16
Chloromethane	49.5	99	7	40
Dibromochloromethane	40.6	81	10	36
Dibromomethane	48.4	97	7	40
Dichlorodifluoromethane	48.0	96	6	40
Ethyl Ether	52.8	106	4	40
Ethylbenzene	55.2	110	5	40
Hexachlorobutadiene	53.6	107	15	40
Isopropylbenzene	52.8	106	9	40
M/P Xylene	109.2	109	9	40
Methyl-t-Butyl Ether	48.4	97	3	40
Methylene Chloride	49.6	99	10	40
N-Butylbenzene	55.0	110	12	40
N-Propylbenzene	53.2	106	7	40
Naphthalene	50.8	102	2	40
Ortho Xylene	52.4	105	8	40

Para-Isopropylbenzene	54.8	110	9	40
Sec-Butylbenzene	55.6	111	8	40
Styrene	52.5	105	5	40
Tert-Butylbenzene	53.9	108	12	40
Tetrachloroethylene	52.1	104	11	40
Tetrahydrofuran	47.1	94	2	40
Toluene	52.8	106	9	40
Trans-1,2-Dichloroethylene	53.2	106	9	40
Trichloroethylene	52.6	105	18	22
Trichlorofluoromethane	56.7	113	11	40
Vinyl Acetate	57.2	114	1	40
Vinyl Chloride	51.0	102	8	19
c-1,3-dichloropropene	44.2	88	10	40
cis-1,2-Dichloroethylene	50.4	101	11	40
t-1,3-Dichloropropene	45.8	92	7	40

Samples in Batch: AA41647 AA41648 AA41651

Comments: