

EPA Method 8270C Polynuclear Aromatic Hydrocarbons by GC/MS-SIM

Field ID: **PB-DS-501**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-16**
 Sampled: **08-11-04 15:53**
 Received: **08-11-04 18:00**
 Cleaned Up: **08-24-04 16:00**
 Extracted: **08-25-04 16:00**
 Analyzed: **08-26-04 09:37**
 Analyst: **JJT**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **SV-1481-P**
 Instrument ID: **MS-6 HP 6890**
 Sample Weight: **16 g**
 Final Volume: **1 mL**
 Percent Solids: **64**
 Dilution Factor: **1**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
91-20-3	Naphthalene	BRL		ug/Kg	15
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	15
208-96-8	Acenaphthylene	BRL		ug/Kg	15
83-32-9	Acenaphthene	BRL		ug/Kg	15
86-73-7	Fluorene	BRL		ug/Kg	15
85-01-8	Phenanthrene	67		ug/Kg	15
120-12-7	Anthracene	25		ug/Kg	15
206-44-0	Fluoranthene	190		ug/Kg	15
129-00-0	Pyrene	140		ug/Kg	15
56-55-3	Benzo[a]anthracene	75		ug/Kg	15
218-01-9	Chrysene	72		ug/Kg	15
205-99-2	Benzo[b]fluoranthene	58		ug/Kg	15
207-08-9	Benzo[k]fluoranthene	68		ug/Kg	15
50-32-8	Benzo[a]pyrene	87		ug/Kg	15
193-39-5	Indeno[1,2,3-c,d]pyrene	43		ug/Kg	15
53-70-3	Dibenzo[a,h]anthracene	BRL		ug/Kg	15
191-24-2	Benzo[g,h,i]perylene	45		ug/Kg	15

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Nitrobenzene-d5	980	450	46 %	30 - 130 %
2-Fluorobiphenyl	980	320	32 %	30 - 130 %
Terphenyl-d14	980	700	71 %	30 - 130 %

Method References: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Method modified by use of selected ion monitoring (SIM) in accordance with Section 7.5.5 of the method. Sample extraction performed by EPA Method 3545. Cleanup performed by EPA Method 3630C. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: LI-DS-S01
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-01
 Sampled: 08-11-04 08:30
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-24-04 20:15
 Analyzed (AR): 08-24-04 20:58
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 56
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	52
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	52
n-C11 to n-C22 Aromatic Hydrocarbons [†] [◊]	BRL		mg/Kg	52
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	52

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	4.6	3.9	85 %	40 - 140 %
	2-Bromonaphthalene	4.6	4.1	89 %	40 - 140 %
Extraction:	Chloro-octadecane	4.6	2.5	55 %	40 - 140 %
	ortho-Terphenyl	4.6	3.0	65 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
[†] Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
[◊] n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **LI-DS-S02**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-02**
 Sampled: **08-11-04 09:30**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-24-04 21:41**
 Analyzed (AR): **08-24-04 22:24**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **16 g**
 Final Volume: **1 mL**
 % Solids: **66**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	44
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	44
n-C11 to n-C22 Aromatic Hydrocarbons [†] ◊	BRL		mg/Kg	44
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	44

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.9	3.9	99 %	40 - 140 %
	2-Bromonaphthalene	3.9	4.0	101 %	40 - 140 %
Extraction:	Chloro-octadecane	3.9	2.4	62 %	40 - 140 %
	ortho -Terphenyl	3.9	2.8	73 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.

◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

**Massachusetts DEP EPH Method
Extractable Petroleum Hydrocarbons by GC/FID**

Field ID: LI-DS-S03
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-03
 Sampled: 08-11-04 10:10
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-24-04 23:07
 Analyzed (AR): 08-24-04 23:50
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 16 g
 Final Volume: 1 mL
 % Solids: 86
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	34
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	34
n-C11 to n-C22 Aromatic Hydrocarbons ^{†◊}	BRL		mg/Kg	34
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	34

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.0	2.8	93 %	40 - 140 %
	2-Bromonaphthalene	3.0	2.9	97 %	40 - 140 %
Extraction:	Chloro-octadecane	3.0	2.0	68 %	40 - 140 %
	ortho-Terphenyl	3.0	2.3	75 %	40 - 140 %

QA/QC Certification

- | | |
|---|-----|
| 1. Were all QA/QC procedures required by the method followed? | Yes |
| 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? | Yes |
| 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? | No |

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

GROUNDWATER ANALYTICAL

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: LI-DS-S04
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-04
 Sampled: 08-11-04 10:50
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-25-04 01:16
 Analyzed (AR): 08-25-04 01:59
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 78
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	38
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	38
n-C11 to n-C22 Aromatic Hydrocarbons [†] ◊	BRL		mg/Kg	38

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	38
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.4	3.2	95 %	40 - 140 %
	2-Bromonaphthalene	3.4	3.2	96 %	40 - 140 %
Extraction:	Chloro-octadecane	3.4	1.9	57 %	40 - 140 %
	ortho-Terphenyl	3.4	2.3	69 %	40 - 140 %

QA/QC Certification

- | | |
|---|-----|
| 1. Were all QA/QC procedures required by the method followed? | Yes |
| 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? | Yes |
| 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? | No |

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: ACD-S01
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-05
 Sampled: 08-11-04 11:09
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-25-04 02:42
 Analyzed (AR): 08-25-04 03:25
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 68
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL		mg/Kg	43
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRL		mg/Kg	43
n-C11 to n-C22 Aromatic Hydrocarbons †◊	BRL		mg/Kg	43

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	BRL		mg/Kg	43
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.8	3.8	98 %	40 - 140 %
	2-Bromonaphthalene	3.8	3.7	96 %	40 - 140 %
Extraction:	Chloro-octadecane	3.8	2.5	65 %	40 - 140 %
	ortho-Terphenyl	3.8	3.1	81 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

GROUNDWATER ANALYTICAL

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: ACD-S02
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-06
 Sampled: 08-11-04 11:20
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-25-04 04:08
 Analyzed (AR): 08-25-04 04:52
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 78
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL		mg/Kg	37
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRL		mg/Kg	37
n-C11 to n-C22 Aromatic Hydrocarbons † ^o	BRL		mg/Kg	37
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	BRL		mg/Kg	37

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.3	3.1	93 %	40 - 140 %
	2-Bromonaphthalene	3.3	3.1	95 %	40 - 140 %
Extraction:	Chloro-octadecane	3.3	2.1	64 %	40 - 140 %
	ortho-Terphenyl	3.3	2.4	72 %	40 - 140 %

QA/QC Certification

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|---|-----|
| 1. Were all QA/QC procedures required by the method followed? | Yes |
| 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? | Yes |
| 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? | No |

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
^o n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: ACD-503
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-07
 Sampled: 08-11-04 11:28
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-25-04 05:35
 Analyzed (AR): 08-25-04 06:18
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 83
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL		mg/Kg	36
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRL		mg/Kg	36
n-C11 to n-C22 Aromatic Hydrocarbons † ^o	BRL		mg/Kg	36

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	BRL		mg/Kg	36
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.2	3.0	94 %	40 - 140 %
	2-Bromonaphthalene	3.2	3.1	97 %	40 - 140 %
Extraction:	Chloro-octadecane	3.2	2.0	64 %	40 - 140 %
	ortho-Terphenyl	3.2	2.4	75 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
^o n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **PB-SS-S01**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-08**
 Sampled: **08-11-04 14:20**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-25-04 07:01**
 Analyzed (AR): **08-25-04 07:44**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **16 g**
 Final Volume: **1 mL**
 % Solids: **74**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	39
n-C19 to n-C36 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	39
n-C11 to n-C22 Aromatic Hydrocarbons [†] [◊]		BRL	mg/Kg	39
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]		BRL	mg/Kg	39

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.5	3.1	89 %	40 - 140 %
	2-Bromonaphthalene	3.5	3.2	92 %	40 - 140 %
Extraction:	Chloro-octadecane	3.5	2.1	61 %	40 - 140 %
	ortho-Terphenyl	3.5	2.3	67 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

- Method Reference:** Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.
- Report Notations:** BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- [†] Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
- [◊] n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

GROUNDWATER ANALYTICAL

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **BSS-01**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-09**
 Sampled: **08-11-04 00:00**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-24-04 20:15**
 Analyzed (AR): **08-24-04 20:58**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **15 g**
 Final Volume: **1 mL**
 % Solids: **76**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	38
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	38
n-C11 to n-C22 Aromatic Hydrocarbons ^{†◇}	BRL		mg/Kg	38

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	38
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.4	3.1	91 %	40 - 140 %
	2-Bromonaphthalene	3.4	3.0	88 %	40 - 140 %
Extraction:	Chloro-octadecane	3.4	2.3	67 %	40 - 140 %
	ortho-Terphenyl	3.4	2.3	69 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

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Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
[†] Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
[◇] n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: PB-SS-S02
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-10
 Sampled: 08-11-04 14:30
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-24-04 21:41
 Analyzed (AR): 08-24-04 22:24
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 16 g
 Final Volume: 1 mL
 % Solids: 77
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †	BRL		mg/Kg	38
n-C19 to n-C36 Aliphatic Hydrocarbons †	BRL		mg/Kg	38
n-C11 to n-C22 Aromatic Hydrocarbons †◊	BRL		mg/Kg	38

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †	BRL		mg/Kg	38
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.4	2.8	85 %	40 - 140 %
	2-Bromonaphthalene	3.4	2.8	82 %	40 - 140 %
Extraction:	Chloro-octadecane	3.4	2.3	68 %	40 - 140 %
	ortho-Terphenyl	3.4	2.3	68 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: PB-SS-S03
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-11
 Sampled: 08-11-04 14:45
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-24-04 23:07
 Analyzed (AR): 08-24-04 23:50
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 16 g
 Final Volume: 1 mL
 % Solids: 88
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	33
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	BRL		mg/Kg	33
n-C11 to n-C22 Aromatic Hydrocarbons ^{†,◊}	BRL		mg/Kg	33
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]	BRL		mg/Kg	33

QC Surrogate Compound	Spiked	Measured	Recovery	QC limits	
Fractionation:	2-Fluorobiphenyl	2.9	2.7	91 %	40 - 140 %
	2-Bromonaphthalene	2.9	2.7	91 %	40 - 140 %
Extraction:	Chloro-octadecane	2.9	2.2	74 %	40 - 140 %
	ortho-Terphenyl	2.9	2.3	79 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.

◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **PB-SS-S04**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-12**
 Sampled: **08-11-04 14:55**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-25-04 01:16**
 Analyzed (AR): **08-25-04 01:59**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **15 g**
 Final Volume: **1 mL**
 % Solids: **82**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	36
n-C19 to n-C36 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	36
n-C11 to n-C22 Aromatic Hydrocarbons ^{†◊}		BRL	mg/Kg	36

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]		BRL	mg/Kg	36
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.2	3.1	99 %	40 - 140 %
	2-Bromonaphthalene	3.2	3.1	97 %	40 - 140 %
Extraction:	Chloro-octadecane	3.2	2.2	69 %	40 - 140 %
	ortho-Terphenyl	3.2	2.4	76 %	40 - 140 %

QA/QC Certification

- | | |
|---|-----|
| 1. Were all QA/QC procedures required by the method followed? | Yes |
| 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? | Yes |
| 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? | No |

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
[†] Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
[◊] n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **PB-DS-S04**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-13**
 Sampled: **08-11-04 15:12**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-25-04 02:42**
 Analyzed (AR): **08-25-04 03:25**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **15 g**
 Final Volume: **1 mL**
 % Solids: **73**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	40
n-C19 to n-C36 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	40
n-C11 to n-C22 Aromatic Hydrocarbons [†] ◊		BRL	mg/Kg	40

Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]		BRL	mg/Kg	40
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QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	3.5	3.0	87 %	40 - 140 %
	2-Bromonaphthalene	3.5	2.9	83 %	40 - 140 %
Extraction:	Chloro-octadecane	3.5	2.7	78 %	40 - 140 %
	ortho-Terphenyl	3.5	2.7	75 %	40 - 140 %

QA/QC Certification	
1. Were all QA/QC procedures required by the method followed?	Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved?	Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1?	No
Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.	

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
[†] Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **PB-DS-S03**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-14**
 Sampled: **08-11-04 15:30**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-25-04 04:08**
 Analyzed (AR): **08-25-04 04:51**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **15 g**
 Final Volume: **1 mL**
 % Solids: **62**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]		BRL	mg/Kg	48
n-C19 to n-C36 Aliphatic Hydrocarbons [†]	53		mg/Kg	48
n-C11 to n-C22 Aromatic Hydrocarbons [†] ◊		BRL	mg/Kg	48
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]		BRL	mg/Kg	48

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	4.2	4.1	98 %	40 - 140 %
	2-Bromonaphthalene	4.2	4.2	99 %	40 - 140 %
Extraction:	Chloro-octadecane	4.2	3.0	71 %	40 - 140 %
	ortho-Terphenyl	4.2	3.2	76 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: PB-DS-502
 Project: Buzzards Bay/7079608-2000
 Client: ENTRIX, Inc.
 Laboratory ID: 75723-15
 Sampled: 08-11-04 15:42
 Received: 08-11-04 18:00
 Extracted: 08-19-04 13:30
 Analyzed (AL): 08-25-04 05:35
 Analyzed (AR): 08-25-04 06:18
 Analyst: MM

Matrix: Soil
 Container: 120 mL Amber Glass
 Preservation: Cool
 QC Batch ID: EP-1932-M
 Instrument ID: GC-7 HP 5890
 Sample Weight: 15 g
 Final Volume: 1 mL
 % Solids: 60
 Aliphatic Dilution Factor: 1
 Aromatic Dilution Factor: 1

EPH Ranges	Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons †		BRL	mg/Kg	49
n-C19 to n-C36 Aliphatic Hydrocarbons †	78		mg/Kg	49
n-C11 to n-C22 Aromatic Hydrocarbons † ^o		BRL	mg/Kg	49
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons †		BRL	mg/Kg	49

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Fractionation:	2-Fluorobiphenyl	4.4	4.2	96 %	40 - 140 %
	2-Bromonaphthalene	4.4	4.1	93 %	40 - 140 %
Extraction:	Chloro-octadecane	4.4	2.8	65 %	40 - 140 %
	ortho-Terphenyl	4.4	3.1	70 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No

Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.

o n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Massachusetts DEP EPH Method Extractable Petroleum Hydrocarbons by GC/FID

Field ID: **PB-DS-S01**
 Project: **Buzzards Bay/7079608-2000**
 Client: **ENTRIX, Inc.**
 Laboratory ID: **75723-16**
 Sampled: **08-11-04 15:53**
 Received: **08-11-04 18:00**
 Extracted: **08-19-04 13:30**
 Analyzed (AL): **08-25-04 07:01**
 Analyzed (AR): **08-25-04 07:44**
 Analyst: **MM**

Matrix: **Soil**
 Container: **120 mL Amber Glass**
 Preservation: **Cool**
 QC Batch ID: **EP-1932-M**
 Instrument ID: **GC-7 HP 5890**
 Sample Weight: **16 g**
 Final Volume: **1 mL**
 % Solids: **64**
 Aliphatic Dilution Factor: **1**
 Aromatic Dilution Factor: **1**

EPH Ranges		Concentration	Notes	Units	Reporting Limit
n-C9 to n-C18 Aliphatic Hydrocarbons [†]			BRL	mg/Kg	45
n-C19 to n-C36 Aliphatic Hydrocarbons [†]		47		mg/Kg	45
n-C11 to n-C22 Aromatic Hydrocarbons [†] ◊			BRL	mg/Kg	45
Unadjusted n-C11 to n-C22 Aromatic Hydrocarbons [†]			BRL	mg/Kg	45

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
Fractionation:	2-Fluorobiphenyl	4.0	3.5	88 %	40 - 140 %
	2-Bromonaphthalene	4.0	3.5	88 %	40 - 140 %
Extraction:	Chloro-octadecane	4.0	2.4	61 %	40 - 140 %
	ortho-Terphenyl	4.0	2.6	65 %	40 - 140 %

QA/QC Certification

1. Were all QA/QC procedures required by the method followed? Yes
 2. Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes
 3. Were any significant modifications made to the method, as specified in Section 11.3.1.1? No
- Method non-conformances indicated above are detailed below on this data report, or in the accompanying project narrative and project quality control report. Release of this data is authorized by the accompanying signed project cover letter. The accompanying cover letter, project narrative and quality control report are considered part of this data report.

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP (Revision 1.1, 2004).
 Sample extraction performed by microwave accelerated solvent extraction technique. Results are reported on a dry weight basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 † Hydrocarbon range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range.
 ◊ n-C11 to n-C22 Aromatic Hydrocarbons range data excludes the method target analyte concentrations.

Project Narrative

Project: **Buzzards Bay/7079608-2000**
Client: **ENTRIX, Inc.**

Lab ID: **75723**
Received: **08-11-04 18:00**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. Samples 75723-01 through -16 were analyzed by MA DEP EPH with Low Level PAHs by EPA 8270C GC/MS-SIM on a Standard (10 business day) turnaround with a due date of 08-30-04, per Loreen Chumiento, 08-16-04.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8270C Modification: Samples 75723-01,-02,-03,-04,-05,-06,-07,-08,-09,-10,-11,-12,-13,-14,-15,-16. Method modified by use of selected ion monitoring (SIM) in accordance with Section 7.5.5 of the method. GC/MS-SIM was used to achieve low quantification limits necessary for regulatory compliance.
2. EPA 8270C Note: Samples 75723-01,-02,-03,-04,-05,-06,-07,-08,-09,-10,-11,-12,-13,-14,-15,-16. Samples were analyzed for only selected polynuclear aromatic hydrocarbons (PAH) target analytes, as requested by client.
3. MA DEP EPH Note: Samples 75723-01,-02,-03,-04,-05,-06,-07,-08,-09,-10,-11,-12,-13,-14,-15,-16. Samples were analyzed for only carbon range analytes, as requested by client.
4. EPA 8270C Note: Samples 75723-01, -14, and -15. Surrogate 2-Fluorobiphenyl was below recommended recovery limits due to matrix interference.

