

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L0309784
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 30-SEP-2003
Attn: J. Picard Date Reported: 07-OCT-2003
Project Number: 0001922.07.2 Delivery Method: Alpha
Site: RAYTHEON

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

- A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES
- B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES
- C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES
- D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

- E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? NO

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Ellen M. Collins
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0309784
Date Reported: 07-OCT-2003

| ALPHA SAMPLE NUMBER | CLIENT IDENTIFICATION | SAMPLE LOCATION |
|---------------------|-----------------------|-----------------|
| L0309784-01 | MW-205M | WAYLAND |
| L0309784-02 | MW-205D | WAYLAND |

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0309784

Report Submission

In reference to question F, at the client's request, the samples were analyzed only for the compounds specified on the chain of custody.

Volatile Organics

L0309784-01 was re-analyzed on dilution in order to quantitate the sample within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration.

In reference to question E, the LCS % recoveries associated with L0309784-01 and -02 for Bromomethane at 36%, and Naphthalene at 66% are below acceptance criteria, and Acetone at 136% is above acceptance criteria. All associated samples are ND for the above mentioned analytes.

In reference to question E, the LCS % recoveries associated with L0309784-01 for Bromomethane at 40%, and Naphthalene at 64% are below acceptance criteria, and Acetone at 147% is above acceptance criteria. All associated samples are ND for the above mentioned analytes.

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

| | |
|--|--|
| Laboratory Sample Number: L0309784-01 | Date Collected: 30-SEP-2003 08:20 |
| MW-205M | Date Received : 30-SEP-2003 |
| Sample Matrix: WATER | Date Reported : 07-OCT-2003 |
| Condition of Sample: Satisfactory | Field Prep: None |
| Number & Type of Containers: 2-Vial | |

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE PREP ANAL | ID |
|--------------------------------|--------|-------|------|------------|-------------------|----|
| Volatile Organics by MCP 8260B | | | | 54 8260B | 1002 23:28 BT | |
| Methylene chloride | ND | ug/l | 5.0 | | | |
| 1,1-Dichloroethane | 1.1 | ug/l | 0.75 | | | |
| Chloroform | ND | ug/l | 0.75 | | | |
| Carbon tetrachloride | ND | ug/l | 0.50 | | | |
| 1,2-Dichloropropane | ND | ug/l | 1.8 | | | |
| Dibromochloromethane | ND | ug/l | 0.50 | | | |
| 1,1,2-Trichloroethane | ND | ug/l | 0.75 | | | |
| Tetrachloroethene | ND | ug/l | 0.50 | | | |
| Chlorobenzene | ND | ug/l | 0.50 | | | |
| 1,2-Dichloroethane | ND | ug/l | 0.50 | | | |
| 1,1,1-Trichloroethane | 10. | ug/l | 0.50 | | | |
| Bromodichloromethane | ND | ug/l | 0.50 | | | |
| trans-1,3-Dichloropropene | ND | ug/l | 0.50 | | | |
| Bromoform | ND | ug/l | 2.0 | | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 0.50 | | | |
| Chloromethane | ND | ug/l | 2.5 | | | |
| Vinyl chloride | ND | ug/l | 1.0 | | | |
| Chloroethane | ND | ug/l | 1.0 | | | |
| 1,1-Dichloroethene | 1.4 | ug/l | 0.50 | | | |
| trans-1,2-Dichloroethene | ND | ug/l | 0.75 | | | |
| Trichloroethene | 49. | ug/l | 0.50 | | | |
| 1,2-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| 1,3-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| 1,4-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| Methyl tert butyl ether | >100 | ug/l | 1 | | | |
| cis-1,2-Dichloroethene | ND | ug/l | 0.50 | | | |
| Dichlorodifluoromethane | ND | ug/l | 5.0 | | | |
| 1,2-Dibromoethane | ND | ug/l | 2.5 | | | |
| 1,3-Dichloropropane | ND | ug/l | 2.5 | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 0.50 | | | |
| o-Chlorotoluene | ND | ug/l | 2.5 | | | |
| p-Chlorotoluene | ND | ug/l | 2.5 | | | |
| Hexachlorobutadiene | ND | ug/l | 2.5 | | | |
| 1,2,4-Trichlorobenzene | ND | ug/l | 2.5 | | | |

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0309784-01
MW-205M

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|--|----------|-------|-----|-------------|------------|------|----|
| | | | | | PREP | ANAL | |
| Volatile Organics by MCP 8260B continued | | | | 54 8260B | 1002 23:28 | | BT |
| Surrogate(s) | Recovery | | | QC Criteria | | | |
| 1,2-Dichloroethane-d4 | 92.0 | % | | 70-130 | | | |
| Toluene-d8 | 89.0 | % | | 70-130 | | | |
| 4-Bromofluorobenzene | 92.0 | % | | 70-130 | | | |
| Dibromofluoromethane | 84.0 | % | | 70-130 | | | |
| Volatile Organics by MCP 8260B | | | | 54 8260B | 1003 15:43 | | BT |
| Methyl tert butyl ether | 170 | ug/l | 5.0 | | | | |
| Surrogate(s) | Recovery | | | QC Criteria | | | |
| 1,2-Dichloroethane-d4 | 94.0 | % | | 70-130 | | | |
| Toluene-d8 | 91.0 | % | | 70-130 | | | |
| 4-Bromofluorobenzene | 93.0 | % | | 70-130 | | | |
| Dibromofluoromethane | 85.0 | % | | 70-130 | | | |

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

| | |
|--|--|
| Laboratory Sample Number: L0309784-02 | Date Collected: 30-SEP-2003 09:04 |
| MW-205D | Date Received : 30-SEP-2003 |
| Sample Matrix: WATER | Date Reported : 07-OCT-2003 |
| Condition of Sample: Satisfactory | Field Prep: None |

Number & Type of Containers: 2-Vial

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE PREP ANAL | ID |
|--------------------------------|--------|-------|------|------------|-------------------|----|
| Volatile Organics by MCP 8260B | | | | 54 8260B | 1003 00:13 BT | |
| Methylene chloride | ND | ug/l | 5.0 | | | |
| 1,1-Dichloroethane | ND | ug/l | 0.75 | | | |
| Chloroform | ND | ug/l | 0.75 | | | |
| Carbon tetrachloride | ND | ug/l | 0.50 | | | |
| 1,2-Dichloropropane | ND | ug/l | 1.8 | | | |
| Dibromochloromethane | ND | ug/l | 0.50 | | | |
| 1,1,2-Trichloroethane | ND | ug/l | 0.75 | | | |
| Tetrachloroethene | ND | ug/l | 0.50 | | | |
| Chlorobenzene | ND | ug/l | 0.50 | | | |
| 1,2-Dichloroethane | ND | ug/l | 0.50 | | | |
| 1,1,1-Trichloroethane | ND | ug/l | 0.50 | | | |
| Bromodichloromethane | ND | ug/l | 0.50 | | | |
| trans-1,3-Dichloropropene | ND | ug/l | 0.50 | | | |
| Bromoform | ND | ug/l | 2.0 | | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 0.50 | | | |
| Chloromethane | ND | ug/l | 2.5 | | | |
| Vinyl chloride | ND | ug/l | 1.0 | | | |
| Chloroethane | ND | ug/l | 1.0 | | | |
| 1,1-Dichloroethene | ND | ug/l | 0.50 | | | |
| trans-1,2-Dichloroethene | ND | ug/l | 0.75 | | | |
| Trichloroethene | 5.2 | ug/l | 0.50 | | | |
| 1,2-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| 1,3-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| 1,4-Dichlorobenzene | ND | ug/l | 2.5 | | | |
| Methyl tert butyl ether | ND | ug/l | 1.0 | | | |
| cis-1,2-Dichloroethene | 2.3 | ug/l | 0.50 | | | |
| Dichlorodifluoromethane | ND | ug/l | 5.0 | | | |
| 1,2-Dibromoethane | ND | ug/l | 2.5 | | | |
| 1,3-Dichloropropane | ND | ug/l | 2.5 | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 0.50 | | | |
| o-Chlorotoluene | ND | ug/l | 2.5 | | | |
| p-Chlorotoluene | ND | ug/l | 2.5 | | | |
| Hexachlorobutadiene | ND | ug/l | 2.5 | | | |
| 1,2,4-Trichlorobenzene | ND | ug/l | 2.5 | | | |

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0309784-02
MW-205D

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|--|----------|-------|-----|-------------|------------|------|----|
| | | | | | PREP | ANAL | |
| Volatile Organics by MCP 8260B continued | | | | 54 8260B | 1003 00:13 | | BT |
| Surrogate(s) | Recovery | | | QC Criteria | | | |
| 1,2-Dichloroethane-d4 | 89.0 | % | | 70-130 | | | |
| Toluene-d8 | 88.0 | % | | 70-130 | | | |
| 4-Bromofluorobenzene | 93.0 | % | | 70-130 | | | |
| Dibromofluoromethane | 84.0 | % | | 70-130 | | | |

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309784

| Parameter | % Recovery | QC Criteria |
|---|------------|-------------|
| Volatile Organics by MCP 8260B LCS for sample(s) 01-02 (WG152263) | | |
| Methylene chloride | 81 | 70-130 |
| 1,1-Dichloroethane | 94 | 70-130 |
| Chloroform | 90 | 70-130 |
| Carbon tetrachloride | 92 | 70-130 |
| 1,2-Dichloropropane | 94 | 70-130 |
| Dibromochloromethane | 89 | 70-130 |
| 1,1,2-Trichloroethane | 100 | 70-130 |
| Tetrachloroethene | 94 | 70-130 |
| Chlorobenzene | 94 | 70-130 |
| Trichlorofluoromethane | 97 | 70-130 |
| 1,2-Dichloroethane | 97 | 70-130 |
| 1,1,1-Trichloroethane | 94 | 70-130 |
| Bromodichloromethane | 90 | 70-130 |
| trans-1,3-Dichloropropene | 85 | 70-130 |
| cis-1,3-Dichloropropene | 86 | 70-130 |
| 1,1-Dichloropropene | 90 | 70-130 |
| Bromoform | 93 | 70-130 |
| 1,1,2,2-Tetrachloroethane | 107 | 70-130 |
| Benzene | 84 | 70-130 |
| Toluene | 93 | 70-130 |
| Ethylbenzene | 95 | 70-130 |
| Chloromethane | 91 | 70-130 |
| Bromomethane | 36 | 70-130 |
| Vinyl chloride | 95 | 70-130 |
| Chloroethane | 95 | 70-130 |
| 1,1-Dichloroethene | 89 | 70-130 |
| trans-1,2-Dichloroethene | 90 | 70-130 |
| Trichloroethene | 94 | 70-130 |
| 1,2-Dichlorobenzene | 93 | 70-130 |
| 1,3-Dichlorobenzene | 92 | 70-130 |
| 1,4-Dichlorobenzene | 93 | 70-130 |
| Methyl tert butyl ether | 99 | 70-130 |
| p/m-Xylene | 94 | 70-130 |
| o-Xylene | 95 | 70-130 |
| cis-1,2-Dichloroethene | 95 | 70-130 |
| Dibromomethane | 99 | 70-130 |
| 1,2,3-Trichloropropane | 100 | 70-130 |
| Styrene | 97 | 70-130 |
| Dichlorodifluoromethane | 101 | 70-130 |
| Acetone | 136 | 70-130 |
| Carbon disulfide | 89 | 70-130 |
| 2-Butanone | 125 | 70-130 |
| 4-Methyl-2-pentanone | 102 | 70-130 |
| 2-Hexanone | 107 | 70-130 |
| Bromochloromethane | 99 | 70-130 |
| Tetrahydrofuran | 97 | 70-130 |
| 2,2-Dichloropropane | 95 | 70-130 |
| 1,2-Dibromoethane | 97 | 70-130 |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309784

Continued

| Parameter | % Recovery | QC Criteria |
|---|------------|-------------|
| Volatile Organics by MCP 8260B LCS for sample(s) 01-02 (WG152263) | | |
| 1,3-Dichloropropane | 99 | 70-130 |
| 1,1,1,2-Tetrachloroethane | 96 | 70-130 |
| Bromobenzene | 94 | 70-130 |
| n-Butylbenzene | 85 | 70-130 |
| sec-Butylbenzene | 91 | 70-130 |
| tert-Butylbenzene | 92 | 70-130 |
| o-Chlorotoluene | 95 | 70-130 |
| p-Chlorotoluene | 90 | 70-130 |
| 1,2-Dibromo-3-chloropropane | 102 | 70-130 |
| Hexachlorobutadiene | 92 | 70-130 |
| Isopropylbenzene | 89 | 70-130 |
| p-Isopropyltoluene | 90 | 70-130 |
| Naphthalene | 66 | 70-130 |
| n-Propylbenzene | 91 | 70-130 |
| 1,2,3-Trichlorobenzene | 86 | 70-130 |
| 1,2,4-Trichlorobenzene | 87 | 70-130 |
| 1,3,5-Trimethylbenzene | 94 | 70-130 |
| 1,2,4-Trimethylbenzene | 95 | 70-130 |
| Ethyl ether | 95 | 70-130 |
| Isopropyl Ether | 86 | 70-130 |
| Ethyl-Tert-Butyl-Ether | 88 | 70-130 |
| Tertiary-Amyl Methyl Ether | 94 | 70-130 |
| 1,4-Dioxane | 121 | 70-130 |
| Surrogate(s) | | |
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 85 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |
| Dibromofluoromethane | 89 | 70-130 |
| Volatile Organics by MCP 8260B LCS for sample(s) 01 (WG152263) | | |
| Methylene chloride | 82 | 70-130 |
| 1,1-Dichloroethane | 97 | 70-130 |
| Chloroform | 93 | 70-130 |
| Carbon tetrachloride | 98 | 70-130 |
| 1,2-Dichloropropane | 97 | 70-130 |
| Dibromochloromethane | 99 | 70-130 |
| 1,1,2-Trichloroethane | 108 | 70-130 |
| Tetrachloroethene | 98 | 70-130 |
| Chlorobenzene | 102 | 70-130 |
| Trichlorofluoromethane | 102 | 70-130 |
| 1,2-Dichloroethane | 96 | 70-130 |
| 1,1,1-Trichloroethane | 98 | 70-130 |
| Bromodichloromethane | 96 | 70-130 |
| trans-1,3-Dichloropropene | 91 | 70-130 |
| cis-1,3-Dichloropropene | 91 | 70-130 |
| 1,1-Dichloropropene | 94 | 70-130 |
| Bromoform | 105 | 70-130 |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309784

Continued

| Parameter | % Recovery | QC Criteria |
|--|------------|-------------|
| Volatile Organics by MCP 8260B LCS for sample(s) 01 (WG152263) | | |
| 1,1,2,2-Tetrachloroethane | 120 | 70-130 |
| Benzene | 86 | 70-130 |
| Toluene | 97 | 70-130 |
| Ethylbenzene | 101 | 70-130 |
| Chloromethane | 90 | 70-130 |
| Bromomethane | 40 | 70-130 |
| Vinyl chloride | 98 | 70-130 |
| Chloroethane | 96 | 70-130 |
| 1,1-Dichloroethene | 92 | 70-130 |
| trans-1,2-Dichloroethene | 93 | 70-130 |
| Trichloroethene | 96 | 70-130 |
| 1,2-Dichlorobenzene | 104 | 70-130 |
| 1,3-Dichlorobenzene | 101 | 70-130 |
| 1,4-Dichlorobenzene | 102 | 70-130 |
| Methyl tert butyl ether | 102 | 70-130 |
| p/m-Xylene | 101 | 70-130 |
| o-Xylene | 102 | 70-130 |
| cis-1,2-Dichloroethene | 98 | 70-130 |
| Dibromomethane | 99 | 70-130 |
| 1,2,3-Trichloropropane | 111 | 70-130 |
| Styrene | 106 | 70-130 |
| Dichlorodifluoromethane | 102 | 70-130 |
| Acetone | 147 | 70-130 |
| Carbon disulfide | 91 | 70-130 |
| 2-Butanone | 128 | 70-130 |
| 4-Methyl-2-pentanone | 102 | 70-130 |
| 2-Hexanone | 111 | 70-130 |
| Bromochloromethane | 99 | 70-130 |
| Tetrahydrofuran | 98 | 70-130 |
| 2,2-Dichloropropane | 96 | 70-130 |
| 1,2-Dibromoethane | 105 | 70-130 |
| 1,3-Dichloropropane | 103 | 70-130 |
| 1,1,1,2-Tetrachloroethane | 107 | 70-130 |
| Bromobenzene | 103 | 70-130 |
| n-Butylbenzene | 90 | 70-130 |
| sec-Butylbenzene | 99 | 70-130 |
| tert-Butylbenzene | 100 | 70-130 |
| o-Chlorotoluene | 102 | 70-130 |
| p-Chlorotoluene | 101 | 70-130 |
| 1,2-Dibromo-3-chloropropane | 108 | 70-130 |
| Hexachlorobutadiene | 101 | 70-130 |
| Isopropylbenzene | 96 | 70-130 |
| p-Isopropyltoluene | 98 | 70-130 |
| Naphthalene | 64 | 70-130 |
| n-Propylbenzene | 99 | 70-130 |
| 1,2,3-Trichlorobenzene | 91 | 70-130 |
| 1,2,4-Trichlorobenzene | 92 | 70-130 |
| 1,3,5-Trimethylbenzene | 101 | 70-130 |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309784

Continued

| Parameter | % Recovery | QC Criteria |
|--|------------|-------------|
| Volatile Organics by MCP 8260B LCS for sample(s) 01 (WG152263) | | |
| 1,2,4-Trimethylbenzene | 103 | 70-130 |
| Ethyl ether | 99 | 70-130 |
| Isopropyl Ether | 91 | 70-130 |
| Ethyl-Tert-Butyl-Ether | 92 | 70-130 |
| Tertiary-Amyl Methyl Ether | 97 | 70-130 |
| 1,4-Dioxane | 105 | 70-130 |
| Surrogate(s) | | |
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |
| Dibromofluoromethane | 92 | 70-130 |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309784

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|---|--------|-------|------|------------|---------------|------|----|
| | | | | | PREP | ANAL | |
| Blank Analysis for sample(s) 01-02 (WG152263-6) | | | | | | | |
| Volatile Organics by MCP 8260B | | | | 54 8260B | 1002 18:51 BT | | |
| Methylene chloride | ND | ug/l | 5.0 | | | | |
| 1,1-Dichloroethane | ND | ug/l | 0.75 | | | | |
| Chloroform | ND | ug/l | 0.75 | | | | |
| Carbon tetrachloride | ND | ug/l | 0.50 | | | | |
| 1,2-Dichloropropane | ND | ug/l | 1.8 | | | | |
| Dibromochloromethane | ND | ug/l | 0.50 | | | | |
| 1,1,2-Trichloroethane | ND | ug/l | 0.75 | | | | |
| Tetrachloroethene | ND | ug/l | 0.50 | | | | |
| Chlorobenzene | ND | ug/l | 0.50 | | | | |
| Trichlorofluoromethane | ND | ug/l | 2.5 | | | | |
| 1,2-Dichloroethane | ND | ug/l | 0.50 | | | | |
| 1,1,1-Trichloroethane | ND | ug/l | 0.50 | | | | |
| Bromodichloromethane | ND | ug/l | 0.50 | | | | |
| trans-1,3-Dichloropropene | ND | ug/l | 0.50 | | | | |
| cis-1,3-Dichloropropene | ND | ug/l | 0.50 | | | | |
| 1,1-Dichloropropene | ND | ug/l | 2.5 | | | | |
| Bromoform | ND | ug/l | 2.0 | | | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 0.50 | | | | |
| Benzene | ND | ug/l | 0.50 | | | | |
| Toluene | ND | ug/l | 0.75 | | | | |
| Ethylbenzene | ND | ug/l | 0.50 | | | | |
| Chloromethane | ND | ug/l | 2.5 | | | | |
| Bromomethane | ND | ug/l | 1.0 | | | | |
| Vinyl chloride | ND | ug/l | 1.0 | | | | |
| Chloroethane | ND | ug/l | 1.0 | | | | |
| 1,1-Dichloroethene | ND | ug/l | 0.50 | | | | |
| trans-1,2-Dichloroethene | ND | ug/l | 0.75 | | | | |
| Trichloroethene | ND | ug/l | 0.50 | | | | |
| 1,2-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,3-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,4-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| Methyl tert butyl ether | ND | ug/l | 1.0 | | | | |
| p/m-Xylene | ND | ug/l | 0.50 | | | | |
| o-Xylene | ND | ug/l | 0.50 | | | | |
| cis-1,2-Dichloroethene | ND | ug/l | 0.50 | | | | |
| Dibromomethane | ND | ug/l | 5.0 | | | | |
| 1,2,3-Trichloropropane | ND | ug/l | 5.0 | | | | |
| Styrene | ND | ug/l | 0.50 | | | | |
| Dichlorodifluoromethane | ND | ug/l | 5.0 | | | | |
| Acetone | ND | ug/l | 5.0 | | | | |
| Carbon disulfide | ND | ug/l | 5.0 | | | | |
| 2-Butanone | ND | ug/l | 5.0 | | | | |
| 4-Methyl-2-pentanone | ND | ug/l | 5.0 | | | | |
| 2-Hexanone | ND | ug/l | 5.0 | | | | |
| Bromochloromethane | ND | ug/l | 2.5 | | | | |
| Tetrahydrofuran | ND | ug/l | 10. | | | | |
| 2,2-Dichloropropane | ND | ug/l | 2.5 | | | | |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309784

Continued

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|---|----------|-------|-------------|------------|------|------------|----|
| | | | | | PREP | ANAL | |
| Blank Analysis for sample(s) 01-02 (WG152263-6) | | | | | | | |
| Volatile Organics by MCP 8260B continued | | | | 54 8260B | | 1002 18:51 | BT |
| 1,2-Dibromoethane | ND | ug/l | 2.5 | | | | |
| 1,3-Dichloropropane | ND | ug/l | 2.5 | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 0.50 | | | | |
| Bromobenzene | ND | ug/l | 2.5 | | | | |
| n-Butylbenzene | ND | ug/l | 0.50 | | | | |
| sec-Butylbenzene | ND | ug/l | 0.50 | | | | |
| tert-Butylbenzene | ND | ug/l | 2.5 | | | | |
| o-Chlorotoluene | ND | ug/l | 2.5 | | | | |
| p-Chlorotoluene | ND | ug/l | 2.5 | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ug/l | 2.5 | | | | |
| Hexachlorobutadiene | ND | ug/l | 2.5 | | | | |
| Isopropylbenzene | ND | ug/l | 0.50 | | | | |
| p-Isopropyltoluene | ND | ug/l | 0.50 | | | | |
| Naphthalene | ND | ug/l | 2.5 | | | | |
| n-Propylbenzene | ND | ug/l | 0.50 | | | | |
| 1,2,3-Trichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,3,5-Trimethylbenzene | ND | ug/l | 2.5 | | | | |
| 1,2,4-Trimethylbenzene | ND | ug/l | 2.5 | | | | |
| Ethyl ether | ND | ug/l | 2.5 | | | | |
| Isopropyl Ether | ND | ug/l | 2.0 | | | | |
| Ethyl-Tert-Butyl-Ether | ND | ug/l | 2.0 | | | | |
| Tertiary-Amyl Methyl Ether | ND | ug/l | 2.0 | | | | |
| 1,4-Dioxane | ND | ug/l | 250 | | | | |
| Surrogate(s) | Recovery | | QC Criteria | | | | |
| 1,2-Dichloroethane-d4 | 94.0 | % | 70-130 | | | | |
| Toluene-d8 | 89.0 | % | 70-130 | | | | |
| 4-Bromofluorobenzene | 94.0 | % | 70-130 | | | | |
| Dibromofluoromethane | 85.0 | % | 70-130 | | | | |
| Blank Analysis for sample(s) 01 (WG152263-8) | | | | | | | |
| Volatile Organics by MCP 8260B | | | | 54 8260B | | 1003 14:57 | BT |
| Methylene chloride | ND | ug/l | 5.0 | | | | |
| 1,1-Dichloroethane | ND | ug/l | 0.75 | | | | |
| Chloroform | ND | ug/l | 0.75 | | | | |
| Carbon tetrachloride | ND | ug/l | 0.50 | | | | |
| 1,2-Dichloropropane | ND | ug/l | 1.8 | | | | |
| Dibromochloromethane | ND | ug/l | 0.50 | | | | |
| 1,1,2-Trichloroethane | ND | ug/l | 0.75 | | | | |
| Tetrachloroethene | ND | ug/l | 0.50 | | | | |
| Chlorobenzene | ND | ug/l | 0.50 | | | | |
| Trichlorofluoromethane | ND | ug/l | 2.5 | | | | |
| 1,2-Dichloroethane | ND | ug/l | 0.50 | | | | |
| 1,1,1-Trichloroethane | ND | ug/l | 0.50 | | | | |
| Bromodichloromethane | ND | ug/l | 0.50 | | | | |
| trans-1,3-Dichloropropene | ND | ug/l | 0.50 | | | | |

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309784

Continued

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|--|--------|-------|------|------------|------|------------|----|
| | | | | | PREP | ANAL | |
| Blank Analysis for sample(s) 01 (WG152263-8) | | | | | | | |
| Volatile Organics by MCP 8260B continued | | | | 54 8260B | | 1003 14:57 | BT |
| cis-1,3-Dichloropropene | ND | ug/l | 0.50 | | | | |
| 1,1-Dichloropropene | ND | ug/l | 2.5 | | | | |
| Bromoform | ND | ug/l | 2.0 | | | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 0.50 | | | | |
| Benzene | ND | ug/l | 0.50 | | | | |
| Toluene | ND | ug/l | 0.75 | | | | |
| Ethylbenzene | ND | ug/l | 0.50 | | | | |
| Chloromethane | ND | ug/l | 2.5 | | | | |
| Bromomethane | ND | ug/l | 1.0 | | | | |
| Vinyl chloride | ND | ug/l | 1.0 | | | | |
| Chloroethane | ND | ug/l | 1.0 | | | | |
| 1,1-Dichloroethene | ND | ug/l | 0.50 | | | | |
| trans-1,2-Dichloroethene | ND | ug/l | 0.75 | | | | |
| Trichloroethene | ND | ug/l | 0.50 | | | | |
| 1,2-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,3-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,4-Dichlorobenzene | ND | ug/l | 2.5 | | | | |
| Methyl tert butyl ether | ND | ug/l | 1.0 | | | | |
| p/m-Xylene | ND | ug/l | 0.50 | | | | |
| o-Xylene | ND | ug/l | 0.50 | | | | |
| cis-1,2-Dichloroethene | ND | ug/l | 0.50 | | | | |
| Dibromomethane | ND | ug/l | 5.0 | | | | |
| 1,2,3-Trichloropropane | ND | ug/l | 5.0 | | | | |
| Styrene | ND | ug/l | 0.50 | | | | |
| Dichlorodifluoromethane | ND | ug/l | 5.0 | | | | |
| Acetone | ND | ug/l | 5.0 | | | | |
| Carbon disulfide | ND | ug/l | 5.0 | | | | |
| 2-Butanone | ND | ug/l | 5.0 | | | | |
| 4-Methyl-2-pentanone | ND | ug/l | 5.0 | | | | |
| 2-Hexanone | ND | ug/l | 5.0 | | | | |
| Bromochloromethane | ND | ug/l | 2.5 | | | | |
| Tetrahydrofuran | ND | ug/l | 10. | | | | |
| 2,2-Dichloropropane | ND | ug/l | 2.5 | | | | |
| 1,2-Dibromoethane | ND | ug/l | 2.5 | | | | |
| 1,3-Dichloropropane | ND | ug/l | 2.5 | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 0.50 | | | | |
| Bromobenzene | ND | ug/l | 2.5 | | | | |
| n-Butylbenzene | ND | ug/l | 0.50 | | | | |
| sec-Butylbenzene | ND | ug/l | 0.50 | | | | |
| tert-Butylbenzene | ND | ug/l | 2.5 | | | | |
| o-Chlorotoluene | ND | ug/l | 2.5 | | | | |
| p-Chlorotoluene | ND | ug/l | 2.5 | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ug/l | 2.5 | | | | |
| Hexachlorobutadiene | ND | ug/l | 2.5 | | | | |
| Isopropylbenzene | ND | ug/l | 0.50 | | | | |
| p-Isopropyltoluene | ND | ug/l | 0.50 | | | | |
| Naphthalene | ND | ug/l | 2.5 | | | | |

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309784

Continued

| PARAMETER | RESULT | UNITS | RDL | REF METHOD | DATE | | ID |
|--|----------|-------|------|-------------|------|------------|----|
| | | | | | PREP | ANAL | |
| Blank Analysis for sample(s) 01 (WG152263-8) | | | | | | | |
| Volatile Organics by MCP 8260B continued | | | | 54 8260B | | 1003 14:57 | BT |
| n-Propylbenzene | ND | ug/l | 0.50 | | | | |
| 1,2,3-Trichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/l | 2.5 | | | | |
| 1,3,5-Trimethylbenzene | ND | ug/l | 2.5 | | | | |
| 1,2,4-Trimethylbenzene | ND | ug/l | 2.5 | | | | |
| Ethyl ether | ND | ug/l | 2.5 | | | | |
| Isopropyl Ether | ND | ug/l | 2.0 | | | | |
| Ethyl-Tert-Butyl-Ether | ND | ug/l | 2.0 | | | | |
| Tertiary-Amyl Methyl Ether | ND | ug/l | 2.0 | | | | |
| 1,4-Dioxane | ND | ug/l | 250 | | | | |
| Surrogate(s) | Recovery | | | QC Criteria | | | |
| 1,2-Dichloroethane-d4 | 96.0 | % | | 70-130 | | | |
| Toluene-d8 | 93.0 | % | | 70-130 | | | |
| 4-Bromofluorobenzene | 102. | % | | 70-130 | | | |
| Dibromofluoromethane | 87.0 | % | | 70-130 | | | |

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

ALPHA ANALYTICAL LABORATORIES
LOGIN SPECIFIC INFORMATION

Laboratory Job Number: L0309784

Were project specific reporting limits specified? YES

Cooler Information

Cooler Custody Seal

A Absent

Container Information

| Container ID | Container Type | Cooler | pH | Temp | Pres | Seal | Analysis |
|--------------|--------------------|--------|----|-------|------|--------|----------|
| L0309784-01A | Vial HCl preserved | A | NA | 1.7 C | Y | Absent | MCP-8260 |
| L0309784-01B | Vial HCl preserved | A | NA | 1.7 C | Y | Absent | MCP-8260 |
| L0309784-02A | Vial HCl preserved | A | NA | 1.7 C | Y | Absent | MCP-8260 |
| L0309784-02B | Vial HCl preserved | A | NA | 1.7 C | Y | Absent | MCP-8260 |

Container Comments

Container ID Comments



CHAIN OF CUSTODY

PAGE 1 OF 1

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ERM - BOSTON
Address: 304 BOSTON ST 6TH FLOOR
BOSTON, MA 02116
Phone: (617) 267-8547
Fax: (617) 267-6447
Email:

Project Information

Project Name: RAYTHEON
Project Location: WALTHAM
Project #: 000122092
Project Manager: J. FICARD
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: 10/7/03
Time:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 9/30/03
ALPHA Job #: L0309784

Report Information - Data Deliverables

FAX EMAIL
 ADDX Add'l Deliverables
Regulatory Requirements/Report Limits
State /Fed Program Criteria

Billing Information

Same as Client info PO #:

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

Yes No Are MCP Analytical Methods Required?
 Yes No Are Drinking Water Samples Submitted?
 Yes No Have you met minimum field QC requirements?

ANALYSIS
CO2 C KMTBE
U. Creek
Miss. Creek
A

SAMPLE HANDLING
Filtration
Done
Not needed
Lab to do
Preservation
Lab to do
(Please specify below)

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Time | Sample Matrix | Samplers Initials | TOTAL # BOTTLES |
|-----------------------------|-----------|-----------------|------|---------------|-------------------|-----------------|
| 09784-1 | MW-205M | 9/30/03 | 0820 | GW | JTF | 2 |
| 2 | MW-205D | 9/30/03 | 0804 | GW | JF1st | 2 |

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP?

Relinquished By: *[Signature]*
Date/Time: 9/30/03 1740

Container Type: V
Preservative: B
Received By: *[Signature]*
Date/Time: 9/30/03 1835

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.