

*Appendix A*  
*BWSC Form and*  
*Public Notification*



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL  
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

-

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**A. SITE LOCATION:**

- 1. Site Name: \_\_\_\_\_
- 2. Street Address: \_\_\_\_\_
- 3. City/Town: \_\_\_\_\_ 4. ZIP Code: \_\_\_\_\_
- 5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
  - a. Tier IA     b. Tier IB     c. Tier IC     d. Tier II
- 6. If applicable, provide the Permit Number: \_\_\_\_\_

**B. THIS FORM IS BEING USED TO:** (check all that apply)

- 1. Submit a **Phase I Completion Statement**, pursuant to 310 CMR 40.0484.
- 2. Submit a **Revised Phase I Completion Statement**, pursuant to 310 CMR 40.0484.
- 3. Submit a **Phase II Scope of Work**, pursuant to 310 CMR 40.0834.
- 4. Submit an **interim Phase II Report**. This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.
- 5. Submit a **final Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.
- 6. Submit a **Revised Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.
- 7. Submit a **Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.
- 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.
- 9. Submit a **Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.
- 10. Submit a **Modified Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.
- 11. Submit an **As-Built Construction Report**, pursuant to 310 CMR 40.0875.

**(All sections of this transmittal form must be filled out unless otherwise noted above)**



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL  
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

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Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**B. THIS FORM IS BEING USED TO (cont.):** (check all that apply)

12. Submit a **Phase IV Final Inspection Report and Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

- a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome.
- b. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
- c. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
- d. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

13. Submit a **Revised Phase IV Final Inspection Report and Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

14. Submit a **periodic Phase V Inspection & Monitoring Report**, pursuant to 310 CMR 40.0892.

15. Submit a **Remedy Operation Status**, pursuant to 310 CMR 40.0893.

16. Submit a **periodic Inspection & Monitoring Report to maintain a Remedy Operation Status**, pursuant to 310 CMR 40.0893(2).

17. Submit a **Termination of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(5).

18. Submit a **final Phase V Inspection & Monitoring Report and Completion Statement**, pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

- a. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement (BWSC104) will be submitted to DEP.
- b. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
- c. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and/or that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
19. Submit a **Revised Phase V Inspection & Monitoring Report and Completion Statement**, pursuant to 310 CMR 40.0894.
20. Submit a **Post-Response Action Outcome Inspection & Monitoring Report**, pursuant to 310 CMR 40.0897.

**(All sections of this transmittal form must be filled out unless otherwise noted above)**



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL  
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

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Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**C. LSP SIGNATURE AND STAMP:**

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a **Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that a **Phase II Scope of Work** or a **Phase IV Remedy Implementation Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that an **As-Built Construction Report, Phase V Inspection and Monitoring Report, or a Remedy Operation Status** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: \_\_\_\_\_

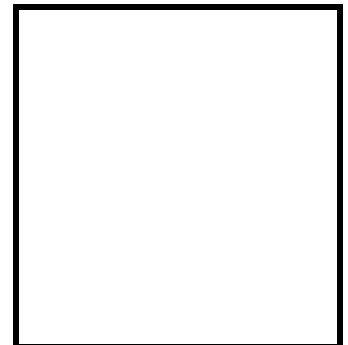
2. First Name: \_\_\_\_\_ 3. Last Name: \_\_\_\_\_

4. Telephone: \_\_\_\_\_ 5. Ext.: \_\_\_\_\_ 6. FAX: \_\_\_\_\_

7. Signature: \_\_\_\_\_

8. Date: \_\_\_\_\_  
(mm/dd/yyyy)

9. LSP Stamp:





**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL  
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

-

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**D. PERSON UNDERTAKING RESPONSE ACTIONS:**

1. Check all that apply:  a. change in contact name  b. change of address  c. change in the person undertaking response actions
2. Name of Organization: \_\_\_\_\_
3. Contact First Name: \_\_\_\_\_ 4. Last Name: \_\_\_\_\_
5. Street: \_\_\_\_\_ 6. Title: \_\_\_\_\_
7. City/Town: \_\_\_\_\_ 8. State: \_\_\_\_\_ 9. ZIP Code: \_\_\_\_\_
10. Telephone: \_\_\_\_\_ 11. Ext.: \_\_\_\_\_ 12. FAX: \_\_\_\_\_

**E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS:**

1. RP or PRP  a. Owner  b. Operator  c. Generator  d. Transporter  
 e. Other RP or PRP Specify: \_\_\_\_\_
2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
4. Any Other Person Undertaking Response Actions Specify Relationship: \_\_\_\_\_

**F. REQUIRED ATTACHMENT AND SUBMITTALS:**

1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.
3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.
4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.
5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.
6. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Name. Send corrections to the DEP Regional Office.
7. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL  
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

-

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:**

1. I, \_\_\_\_\_, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: \_\_\_\_\_ 3. Title: \_\_\_\_\_  
Signature

4. For: \_\_\_\_\_ 5. Date: \_\_\_\_\_  
(Name of person or entity recorded in Section D) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: \_\_\_\_\_

8. City/Town: \_\_\_\_\_ 9. State: \_\_\_\_\_ 10. ZIP Code: \_\_\_\_\_

11. Telephone: \_\_\_\_\_ 12. Ext.: \_\_\_\_\_ 13. FAX: \_\_\_\_\_

**YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.**

Date Stamp (DEP USE ONLY:)

*Appendix B*  
*Soil Boring Logs*



ERM  
 399 Boylston St. 6th Floor  
 Boston, MA 02116  
 Telephone: 617-646-7800  
 Fax: 617-267-6447

# BORING NUMBER B-515

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	32	FILL		TOPSOIL and medium to coarse sand, well sorted (poorly graded), dry, dark brown/brown.		
			1.6			
5						
	58	CL-ML		SILT some clay, poorly sorted (well graded), slightly moist, brown/gray.		
			7.9			
10						
	50	CL-ML		CLAY some silt, clay varves, poorly sorted (well graded), moist, gray.		
			12.5		6.7	.1
15						
	48	MH		SILT little clay, poorly sorted (well graded), moist, gray.		
			16.9			
		SM		SILT little fine sand, poorly sorted (well graded), slightly moist, brown/red.	107	11.5
20						
	38	SP		FINE SAND, well sorted (poorly graded), slightly moist, brown.		
			21.9		.2	.2
25				Bottom of hole at 25.0 feet.		





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 Fax: 617-267-6447

# BORING NUMBER B-522

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	46	FILL		FILL, poorly sorted (well graded), slightly moist, brown.		
			1.4			
		CL-ML		SILT some clay, poorly sorted (well graded), slightly moist, gray.		
			2.3			
					1.1	.2
5						
	54	CL-ML		SILT little clay, poorly sorted (well graded), moist, brown/gray.		
			6.0			
		CL		CLAY trace silt, poorly sorted (well graded), slightly moist, brown/gray.		
			7.7		157	3.7
10						
	60	CL-ML		SILT some clay, poorly sorted (well graded), moist, gray.		
			12.0			
		SW-SM		FINE SAND and silt, poorly sorted (well graded), moist, gray.		
			12.5			
		SW-SM		FINE SAND and silt, poorly sorted (well graded), moist, brown/red.		
			13.0		231	46.9
15						
	64	SW-SM		FINE SAND little silt, poorly sorted (well graded), moist, brown.		
			17.5			
		SW-SM		FINE SAND some silt, poorly sorted (well graded), moist, gray.		
			18.2		.1	.1
20				Bottom of hole at 20.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06



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# BORING NUMBER B-522A

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	58	FILL		FILL grading to medium to coarse sand, well sorted (poorly graded), slightly moist, dark brown/brown.		
		SW-SM		SILT little fine sand, poorly sorted (well graded), slightly moist, gray/brown.	.1	.1
				2.0		
				2.9		
5						
	90	SW		, fall in from previous boring, brown.		
				5.5		
				6.0		
		CL-ML		MEDIUM TO COARSE SAND little fine sand, poorly sorted (well graded), slightly moist, brown.		
				SILT little clay, trace clay, poorly sorted (well graded), slightly moist, gray/brown.	.1	.2
				9.5		
10						
	60	CL-ML		SILT some clay, poorly sorted (well graded), moist, gray.		
				11.7		
		MLS		FINE SAND little silt, poorly sorted (well graded), slightly moist, gray.	.1	.2
				13.0		
15						
	40	MLS		FINE SAND little silt, poorly sorted (well graded), slightly moist, brown.		
				16.6		
		CL-ML		SILT little clay, trace fine sand, poorly sorted (well graded), slightly moist, gray.	.1	.1
				17.0		
20				Bottom of hole at 20.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06



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**BORING NUMBER B-525A**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
6		SP		MEDIUM TO FINE SAND and some silt, poorly sorted (well graded), loose, moist, orange brown.		
		SM		FINE SAND and silt, well sorted (poorly graded), medium stiff, moist, orange brown.	9.3	0
10		SM		FINE SANDY SILT with trace medium sand, well sorted (poorly graded), medium stiff, moist, orange brown.		
6		ML		SILT with some clay lenses, well sorted (poorly graded), medium stiff, wet, olive gray.	28.5	0.4
15		ML		SILT with some clay lenses, well sorted (poorly graded), medium stiff, wet, olive gray.		
		SM		FINE SANDY SILT with some clay lenses, well sorted (poorly graded), medium stiff, wet, orange brown.	12.1	0.1
20						
5		SP		FINE TO MEDIUM SAND with some silt, well sorted (poorly graded), loose, wet, orange brown.		
					0	0
25				Bottom of hole at 25.0 feet.		



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**BORING NUMBER B-525B**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5		SP		MEDIUM SAND with some fine sandy silt, poorly sorted (well graded), loose, moist, orange brown.		
5		ML		SILT and fine sand, well sorted (poorly graded), medium stiff, moist, orange brown.	1.2	0
10		ML		SILT and fine sand, well sorted (poorly graded), medium stiff, very moist, orange brown.		
6		ML		SILT and some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.	6.7	0.1
15		ML		SILT and some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.		
6		SM		FINE SANDY SILT with some clay lenses, well sorted (poorly graded), stiff, wet, orange brown.	1.4	0
20		SP		MEDIUM TO FINE SAND and some silt, poorly sorted (well graded), loose, wet, orange brown/ Tan.		
4				22.8	0.7	0
25				Bottom of hole at 25.0 feet.		



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**BORING NUMBER B-525C**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
4		SP		MEDIUM TO FINE SAND, poorly sorted (well graded), loose, moist, orange brown.	0.2	0
10						
6		ML		SANDY SILT with some clay, well sorted (poorly graded), plastic, moist, light brown/gray.	6.7	0.1
15						
6		ML		SILT with some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.	10.0	0.2
20						
6		SM		FINE SAND with some medium sand, well sorted (poorly graded), medium stiff, very moist, orange brown.		
6		SM		FINE SAND with some medium sand, well sorted (poorly graded), medium stiff, moist, orange brown.	1.2	0
23.5						
25				Bottom of hole at 25.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06











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 Fax: 617-267-6447

# BORING NUMBER B-528

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CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	38	FILL		FILL grading to medium to coarse sand, well sorted (poorly graded), slightly moist, dark brown/brown.		
			1.9		.2	.2
5						
	100	SW		FINE TO MEDIUM SAND trace coarse sand, poorly sorted (well graded), moist, brown.		
			6.7			
		CL-ML		CLAY little silt, poorly sorted (well graded), very dense, slightly moist, brown.		
10						
	60	CL-ML		SILT and clay, clay varves, poorly sorted (well graded), moist, gray.	.2	.1
			10.0			
		SW-SM		SILT little fine sand, poorly sorted (well graded), moist, gray.		
		CL-ML		SILT and clay, trace fine sand, poorly sorted (well graded), brown/red.	.1	.1
			12.0 12.5 13.0			
15		SW-SM		SILT some fine sand, poorly sorted (well graded), moist, brown.		
	52	SW-SM		FINE SAND trace silt, clay varves, poorly sorted (well graded), gray.		
			16.3			
			17.6		.2	.1
20				Bottom of hole at 20.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06



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# BORING NUMBER B-529

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5	100	FILL		5.5 FILL grading to medium sand, well sorted (poorly graded), brown. SILT some fine sand, trace clay, poorly sorted (well graded), moist, brown.		
		SW-SM		7.5 SILT some clay, grey clay varves, poorly sorted (well graded), moist, brown.		
10		CL-ML		10.0 SILT and clay, poorly sorted (well graded), moist, gray.	1659 1082	307 88.7
	57	CL-ML		11.8 SILT some fine sand, poorly sorted (well graded), moist, gray.		
		SW-SM		12.2 FINE SAND some silt, poorly sorted (well graded), gray.		
		SW-SM		12.6 FINE SAND some silt, poorly sorted (well graded), gray.		
		SW-SM		12.9 MEDIUM SAND and silt, trace clay, poorly sorted (well graded), brown.		
15		SW-SM		15.5 SILT some fine sand, trace clay, poorly sorted (well graded), moist, brown.		
	56	SW-SM		16.0 FINE SAND some silt, trace clay, poorly sorted (well graded), moist, brown.		
		SW-SM		16.5 SILT little fine sand, poorly sorted (well graded), moist, brown.		
		SW-SM		FINE SAND trace silt, poorly sorted (well graded), moist, brown.		
		SW-SM		17.8	.6	.4
20				Bottom of hole at 20.0 feet.		

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**BORING NUMBER B-530**

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5	100	SP		MEDIUM SAND, well sorted (poorly graded), moist, brown.		
		SW-SM		SILT little fine sand, poorly sorted (well graded), moist, brown.		
		CL-ML		SILT little clay, poorly sorted (well graded), plastic, moist, brown.		
		CL-ML		SILT some clay, poorly sorted (well graded), plastic, moist, brown.		
10	65	CL-ML		SILT and clay, clay varves, poorly sorted (well graded), plastic, moist, brown.	104	22.3
		CL-ML		CLAY some silt, poorly sorted (well graded), plastic, moist, gray.	23.8	16.4
		SW-SM		SILT trace fine sand, poorly sorted (well graded), moist, brown.		
15	58	SW-SM		SILT little fine sand, trace medium sand, poorly sorted (well graded), moist, brown.		
		CL-ML		SILT trace clay, clay varves, poorly sorted (well graded), moist.		
20				Bottom of hole at 20.0 feet.	.3	.3

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# BORING NUMBER B-530A

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	47			FILL, brown.		
			2.4			
5						
	84	SW		5.5 FINE TO MEDIUM SAND, poorly sorted (well graded), moist, dark brown.		
		SP		6.5 MEDIUM SAND, well sorted (poorly graded), moist, brown.		
		SW-SM		7.5 FINE SAND and silt, poorly sorted (well graded), moist, brown/gray.		
		CL-ML		9.2 SILT some clay, poorly sorted (well graded), moist, gray.	.6	1.2
10						
	76	CL-ML		SILT some clay, trace fine sand, poorly sorted (well graded), moist, gray/brown.		
		CL-ML		12.7 SILT little clay, bottom 1" iron oxide coloring, poorly sorted (well graded), moist, brown.	1.6	1.4
				13.8		
15						
	62	CL-ML		SILT little clay, bottom 2" iron oxide coloring, poorly sorted (well graded), moist, brown.		
				18.1		
20				Bottom of hole at 20.0 feet.	.1	.1

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# BORING NUMBER B-530B

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
7		SP		FINE SANDY SILT with some clay lenses, well sorted (poorly graded), medium stiff, moist, orange brown.	3.3	0
10		SP		FINE SAND and silt, well sorted (poorly graded), medium stiff, moist, orange brown.		
7		ML		SILT with some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.	10.3	4.9
15		SP		FINE SILTY SAND with some clay lenses, well sorted (poorly graded), medium stiff, wet, orange brown.	0	0.4
18.4						
20				Bottom of hole at 20.0 feet.		

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**BORING NUMBER B-530C**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
6		SP		MEDIUM TO FINE SAND with trace silt, moderately sorted, loose, moist, orange brown. FINE SAND and silt, well sorted (poorly graded), medium stiff, wet, orange brown.	2.7	2.4
10						
6		SP		FINE SAND and silt, well sorted (poorly graded), medium stiff, wet, orange brown.		
		ML		SILT and some fine sand, well sorted (poorly graded), stiff, wet, olive gray.	4.0	0.4
15						
6		SP		FINE SAND and silt, well sorted (poorly graded), medium stiff, wet, orange brown.	0	0
18.3						
20				Bottom of hole at 20.0 feet.		

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# BORING NUMBER B-531

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5	100	FILL		FILL grading to fine to medium sand, well sorted (poorly graded), moist, dark brown/brown.	1.7	0
		CL-ML		SILT little clay, poorly sorted (well graded), moist, gray.		
		SW		FINE TO MEDIUM SAND, poorly sorted (well graded), brown.		
		CL-ML		SILT some clay, poorly sorted (well graded), moist, brown.		
10	74	CL-ML		SILT little clay, poorly sorted (well graded), medium loose, brown.		
		CL-ML		CLAY little silt, poorly sorted (well graded), moist, gray.		
		SW-SM		SILT little fine sand, little clay, poorly sorted (well graded), moist, gray.	23.4	.1
		SW-SM		FINE SAND little silt, trace clay, poorly sorted (well graded), moist, gray.		
15	60	SW-SM		FINE SAND little silt, trace clay, poorly sorted (well graded), moist, gray.	24.9	.2
		SW-SM		FINE SAND trace silt, poorly sorted (well graded), moist, brown.		
		SW-SM		FINE SAND some silt, little clay, clay varves, poorly sorted (well graded), moist, brown.		
20	30	SW		FINE SAND little medium sand, poorly sorted (well graded), moist, brown/red.		
		SP		FINE SAND, well sorted (poorly graded), moist, brown.	1	.2
25				Bottom of hole at 25.0 feet.		

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# BORING NUMBER B-531A

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0	50	FILL		FILL grading to fine to medium sand, well sorted (poorly graded), brown.	.8	.2
			2.5			
5	100	SW		FINE TO MEDIUM SAND, poorly sorted (well graded), moist, brown.		
			6.9			
		SW-SM		SILT little fine sand, poorly sorted (well graded), moist, brown.	1.6	.2
10	64	CL-ML		SILT little clay, grey clay varves, poorly sorted (well graded), moist, brown.		
			13.2		15	4.9
15	62	CL-ML		SILT trace clay, poorly sorted (well graded), moist, brown.		
			16.7			
		SW-SM		FINE SAND trace silt, poorly sorted (well graded), brown.		
			18.1		16.9	.1
20				Bottom of hole at 20.0 feet.		

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# BORING NUMBER B-531B

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5	100	SP		MEDIUM SAND, well sorted (poorly graded), moist, brown.		
			6.6			
		SW-SM		FINE SAND little silt, poorly sorted (well graded), moist, brown.		
		SW-SM		SILT little fine sand, poorly sorted (well graded), moist, brown.		
		SW-SM		SILT some clay, little fine sand, poorly sorted (well graded), slightly moist, gray/brown.		
10	60	CL-ML			3.5	.2
		SW-SM		SILT and fine sand, poorly sorted (well graded), moist, gray/brown.		
		SW-SM		FINE SAND little silt, poorly sorted (well graded), moist, gray.		
		SW-SM		FINE SAND and silt, bottom 2" iron oxide coloring, poorly sorted (well graded), gray.	16.5	.3
15	60	CL-ML		SILT and clay, dark gray clay varves, poorly sorted (well graded), moist, gray/brown.		
		SP		FINE SAND, well sorted (poorly graded), moist, gray.		
		SW-SM		FINE SAND some silt, trace clay, poorly sorted (well graded), moist, gray.	7	
20				Bottom of hole at 20.0 feet.		

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**BORING NUMBER B-531C**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
3		SM		SILTY SAND and some gravel, poorly sorted (well graded), loose, slightly moist, brown.	-	0
5		SP		MEDIUM TO FINE SAND, well sorted (poorly graded), loose, moist, orange brown.		
8		ML		SILT with some fine sand, well sorted (poorly graded), medium stiff, moist, olive gray.		
8		SM		FINE TO MEDIUM SAND with trace silt, moderately sorted, medium stiff, moist, orange brown/ Tan.	0	0
8		ML		SILT with some fine sand, well sorted (poorly graded), stiff, moist, olive gray.		
10		SM		MEDIUM SAND with fine sand, poorly sorted (well graded), loose, wet, orange brown/ Tan.		
15		ML		SILT with some fine sand, moderately sorted, stiff, very moist, olive gray.	0	0
15		ML		SILT with some fine sand, well sorted (poorly graded), stiff, wet, olive gray.		
20		ML		FINE SANDY SILT with some clay lenses, well sorted (poorly graded), stiff, moist, orange brown.	10.0	3.6
23.0		SM		FINE SAND with some medium sand, well sorted (poorly graded), loose, wet, orange brown/ Tan.		
25				Bottom of hole at 25.0 feet.	0.3	0



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# BORING NUMBER B-531D

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
3		SM SP		SILTY SAND and some gravel, poorly sorted (well graded), loose, slightly moist, brown. MEDIUM SAND with some fine sand, poorly sorted (well graded), loose, slightly moist, orange brown.	-	0
5		SP		MEDIUM TO FINE SAND and some silty sand, poorly sorted (well graded), medium stiff, moist, orange brown.		
7		SP ML		MEDIUM SAND and some fine sandy silt, poorly sorted (well graded), loose, moist, orange brown/ Tan. FINE SAND and silt, well sorted (poorly graded), stiff, moist, olive gray.	0.2	0
10		ML		SILT and fine sand, moderately sorted, stiff, moist, olive gray.		
8		ML			2.8	0
15		ML		SILT with some clay lens, well sorted (poorly graded), stiff, moist, olive gray.		
6		ML		FINE SANDY SILT with some clay lens, well sorted (poorly graded), stiff, moist, orange brown.	14.3	0.4
20		SP		FINE SAND and some medium sand, well sorted (poorly graded), stiff, wet, orange brown.		
5				22.8	0.2	1.7
25				Bottom of hole at 25.0 feet.		





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**BORING NUMBER B-531E**

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
4		SM SP		SILTY SAND and some gravel, poorly sorted (well graded), loose, slightly moist, brown.  MEDIUM SAND, well sorted (poorly graded), loose, moist, orange brown.	-	0
5						
6		SP ML		MEDIUM SAND with some silty sand, well sorted (poorly graded), medium dense, moist, orange brown.  FINE SAND and silt, well sorted (poorly graded), stiff, moist, olive gray.	0.1	0
10						
8		ML ML		FINE SAND and silt, well sorted (poorly graded), medium stiff, moist, orange brown.  SILT with some fine sand, well sorted (poorly graded), medium stiff, wet, gray.	6.7	0.1
15						
5		ML SM		SILT with some fine sand, well sorted (poorly graded), medium stiff, wet, grey.  FINE SANDY SILT grading to fine sand, poorly sorted (well graded), medium stiff, wet, orange brown.	10.0	5.6
20						
5		SP		FINE SAND with some medium sand, well sorted (poorly graded), loose, wet, tan/ orange brown.	1.2	0
22.9						
25				Bottom of hole at 25.0 feet.		



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# BORING NUMBER B-531F

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 4/14/06 COMPLETED 4/14/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe 6610DT (Truck) GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
6		SP		MEDIUM TO FINE SAND with some silt, moderately sorted, loose, wet, orange brown.	0	0
10						
7		ML		FINE SANDY SILT with some clay lenses, well sorted (poorly graded), medium stiff, wet, olive gray.		
		ML		SILT with some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.	0.8	0
15						
		ML		SILT with some clay lenses, well sorted (poorly graded), stiff, wet, olive gray.		
5		SP		MEDIUM SAND with some fine sand, well sorted (poorly graded), loose, wet, orange brown.	4.2	.3
18.3						
20				Bottom of hole at 20.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06









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# BORING NUMBER B-534

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CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 1/31/06 COMPLETED 1/31/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5						
10	60	CL-ML		SILT some clay, clay varves, well sorted (poorly graded), plastic, moist, gray.		
				11.5		
		CL-ML		SILT little clay, poorly sorted (well graded), plastic, moist, gray.	10.5	1.8
				13.0		
15	56	CL-ML		SILT little clay, clay varves, poorly sorted (well graded), plastic, moist, gray.		
				17.7	30	13.5
		SP		FINE SAND, well sorted (poorly graded), moist, brown/red.		
				17.8		
20	40	SP		FINE SAND, well sorted (poorly graded), moist, brown/gray.		
				22.0	11.4	18.5
25	30	SW-SM		FINE SAND little silt, poorly sorted (well graded), moist, gray.		
				26.5	.6	1.8
30						

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

Bottom of hole at 30.0 feet.








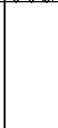

ERM  
 399 Boylston St. 6th Floor  
 Boston, MA 02116  
 Telephone: 617-646-7800  
 Fax: 617-267-6447

# BORING NUMBER B-534A

PAGE 1 OF 1

**CLIENT** Raytheon - Wayland      **PROJECT NAME** Northern Area Soil Sampling  
**PROJECT NUMBER** 0043036      **PROJECT LOCATION** Wayland, MA  
**DATE STARTED** 1/31/06      **COMPLETED** 1/31/06      **GROUND ELEVATION** -      **WELL/BORING DIAMETER** 1.75  
**DRILLING CONTRACTOR** Geosearch      **MEASURING POINT ELEVATION (ft)** \_\_\_\_\_  
**DRILLING METHOD** Geoprobe      **GROUNDWATER ELEVATION (ft)** \_\_\_\_\_  
**LOGGED BY** Regan      **CHECKED BY** Regan      **GROUNDWATER ELEVATION DATE** \_\_\_\_\_  
**NOTES** \_\_\_\_\_

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
5	87	SP		5.5 MEDIUM SAND, well sorted (poorly graded), moist, brown.		
		CL-ML		CLAY little silt, trace fine sand, poorly sorted (well graded), plastic, moist, brown.		
10	60	CL-ML		9.4 CLAY some silt, poorly sorted (well graded), plastic, moist, gray.		1.2
		SW-SM		11.6 SILT little fine sand, trace clay, poorly sorted (well graded), moist, gray.	25.7	19
15	40	SW-SM		13.0 SILT little fine sand, clay varves, poorly sorted (well graded), moist, gray.		
		SW-SM		17.0 SILT little fine sand, clay varves, poorly sorted (well graded), moist, gray.	134	.4
20	50	SP		22.5 FINE SAND, well sorted (poorly graded), moist, brown.	.1	.2
25				Bottom of hole at 25.0 feet.		



ERM  
 399 Boylston St. 6th Floor  
 Boston, MA 02116  
 Telephone: 617-646-7800  
 Fax: 617-267-6447

# BORING NUMBER B-534B

PAGE 1 OF 1

CLIENT Raytheon - Wayland PROJECT NAME Northern Area Soil Sampling  
 PROJECT NUMBER 0043036 PROJECT LOCATION Wayland, MA  
 DATE STARTED 2/1/06 COMPLETED 2/1/06 GROUND ELEVATION - WELL/BORING DIAMETER 1.75  
 DRILLING CONTRACTOR Geosearch MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Geoprobe GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Regan CHECKED BY Regan GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID-headspace (ppm)	PID-scan (ppm)
0						
	48	FILL		FILL grading to medium to coarse sand, dark brown/brown.		
				2.4		
5						
	100	SW		MEDIUM SAND some fine sand, poorly sorted (well graded), slightly moist, brown.		
				6.0		
		CL-ML		CLAY some silt, poorly sorted (well graded), brown.		
10						
	50	CL-ML		SILT some clay, clay varves, poorly sorted (well graded), moist, gray.		
				10.0		
		SW-SM		SILT and fine sand, trace clay, poorly sorted (well graded), moist, gray.		
				10.7		
				12.5	.3	.1
15						
	48	SW-SM		SILT and fine sand, poorly sorted (well graded), moist, gray.		
				16.2		
		SW-SM		FINE SAND little silt, poorly sorted (well graded), moist, gray.		
				17.4	.2	.1
20						
	56	SW		FINE SAND, poorly sorted (well graded), very moist, gray.		
				22.8	.1	.2
25				Bottom of hole at 25.0 feet.		

WAYLAND NORTHERN AREA NORTHERN AREA SOIL BORINGS.GPJ 4/28/06

*Appendix C*  
*Laboratory Analytical reports*

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: L0604978  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 07-APR-2006  
Attn: Jeremy Picard Date Reported: 14-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON GW SAMPLING

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? N/A

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604978  
Date Reported: 14-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604978-01	DEP-19M-20060406-01	WAYLAND, MA
L0604978-02	DUP-002-20060406-01	WAYLAND, MA
L0604978-03	MW-554MA-20060406-01	WAYLAND, MA
L0604978-04	MW-554S-20060406-01	WAYLAND, MA
L0604978-05	MW-554MB-20060406-01	WAYLAND, MA
L0604978-06	MW-554D-20060406-01	WAYLAND, MA
L0604978-07	MW-555S-20060406-01	WAYLAND, MA
L0604978-08	MW-555MA-20060406-01	WAYLAND, MA
L0604978-09	MW-555MB-20060406-01	WAYLAND, MA
L0604978-10	MW-555D-20060406-01	WAYLAND, MA



ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604978

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Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

In reference to question E:

The WG235900-1,2 LCS has a low recovery for dichlorodifluoromethane and 1,4-dioxane (in the LCS), both difficult analytes.

The WG235900-4,5 LCS has a low recovery for dichlorodifluoromethane and 1,4-dioxane (in the LCS), both difficult 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: L0604978-01  
DEP-19M-20060406-01  
Sample Matrix: WATER

Date Collected: 06-APR-2006 11:16  
Date Received : 07-APR-2006  
Date Reported : 14-APR-2006

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B		0412 20:57 RY	
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	0.61	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				
cis-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	4.0	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				
cis-1,2-Dichloroethene	24	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-01  
DEP-19M-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 20:57		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	115	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	101	%		70-130			
Dibromofluoromethane	114	%		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

<b>Laboratory Sample Number:</b> L0604978-02	<b>Date Collected:</b> 06-APR-2006 00:00
DUP-002-20060406-01	<b>Date Received :</b> 07-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 14-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0412 21:33 RY	
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	0.61	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			
cis-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	4.2	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			
cis-1,2-Dichloroethene	24	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604978-02  
DUP-002-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 21:33		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	120	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	100	%		70-130			
Dibromofluoromethane	113	%		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:	L0604978-03	Date Collected:	06-APR-2006 12:25
	MW-554MA-20060406-01	Date Received :	07-APR-2006
Sample Matrix:	WATER	Date Reported :	14-APR-2006
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				60 8260B	0412 22:10	RY
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			
cis-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	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			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604978-03  
MW-554MA-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 22:10		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	117	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	93.0	%		70-130			
Dibromofluoromethane	113	%		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: L0604978-04 Date Collected: 06-APR-2006 12:00  
MW-554S-20060406-01 Date Received : 07-APR-2006  
Sample Matrix: WATER Date Reported : 14-APR-2006  
Condition of Sample: Satisfactory Field Prep: None  
Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0412 22:47 RY		
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-04  
MW-554S-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 22:47		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	119	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	87.0	%		70-130			
Dibromofluoromethane	116	%		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:	L0604978-05	Date Collected:	06-APR-2006 14:00
	MW-554MB-20060406-01	Date Received :	07-APR-2006
Sample Matrix:	WATER	Date Reported :	14-APR-2006
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				60 8260B	0412 23:23	RY
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			
cis-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	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			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604978-05  
MW-554MB-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 23:23		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	123	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	86.0	%		70-130			
Dibromofluoromethane	114	%		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: L0604978-06	Date Collected: 06-APR-2006 13:50
MW-554D-20060406-01	Date Received : 07-APR-2006
Sample Matrix: WATER	Date Reported : 14-APR-2006
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				60 8260B	0413 09:50 PD	
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			
cis-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	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			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604978-06  
MW-554D-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 09:50 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	94.0	%		70-130			
Dibromofluoromethane	119	%		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

<b>Laboratory Sample Number:</b> L0604978-07	<b>Date Collected:</b> 06-APR-2006 16:20
MW-555S-20060406-01	<b>Date Received :</b> 07-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 14-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0413 02:58 PD		
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-07  
MW-555S-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 02:58 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	116	%		70-130			
Toluene-d8	94.0	%		70-130			
4-Bromofluorobenzene	93.0	%		70-130			
Dibromofluoromethane	122	%		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

<b>Laboratory Sample Number:</b> L0604978-08	<b>Date Collected:</b> 06-APR-2006 15:25
MW-555MA-20060406-01	<b>Date Received :</b> 07-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 14-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0413 00:00		RY
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-08  
MW-555MA-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 00:00		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	118	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	95.0	%		70-130			
Dibromofluoromethane	112	%		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

<b>Laboratory Sample Number:</b> L0604978-09	<b>Date Collected:</b> 06-APR-2006 15:55
MW-555MB-20060406-01	<b>Date Received :</b> 07-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 14-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0413 00:36 RY		
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-09  
MW-555MB-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 00:36 RY		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	118	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	92.0	%		70-130			
Dibromofluoromethane	111	%		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

<b>Laboratory Sample Number:</b> L0604978-10	<b>Date Collected:</b> 06-APR-2006 15:35
MW-555D-20060406-01	<b>Date Received :</b> 07-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 14-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0413 01:13 RY		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	0.79	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				
cis-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	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				
cis-1,2-Dichloroethene	2.4	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604978-10  
MW-555D-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 01:13		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	118	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	100	%		70-130			
Dibromofluoromethane	116	%		70-130			

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604978

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-05,08-10 (WG235883-1, WG235883-2)					
Methylene chloride	108	106	2	25	70-130
1,1-Dichloroethane	111	108	3	25	70-130
Chloroform	113	107	5	25	70-130
Carbon tetrachloride	130	118	10	25	70-130
1,2-Dichloropropane	112	109	3	25	70-130
Dibromochloromethane	103	101	2	25	70-130
1,1,2-Trichloroethane	107	104	3	25	70-130
Tetrachloroethene	115	106	8	25	70-130
Chlorobenzene	107	103	4	25	70-130
Trichlorofluoromethane	119	109	9	25	70-130
1,2-Dichloroethane	117	110	6	25	70-130
1,1,1-Trichloroethane	122	113	8	25	70-130
Bromodichloromethane	113	109	4	25	70-130
trans-1,3-Dichloropropene	107	102	5	25	70-130
cis-1,3-Dichloropropene	97	95	2	25	70-130
1,1-Dichloropropene	113	107	5	25	70-130
Bromoform	105	102	3	50	70-130
1,1,2,2-Tetrachloroethane	94	98	4	25	70-130
Benzene	111	107	4	25	70-130
Toluene	111	102	8	25	70-130
Ethylbenzene	116	107	8	25	70-130
Chloromethane	86	83	4	50	70-130
Bromomethane	78	84	7	50	70-130
Vinyl chloride	106	98	8	25	70-130
Chloroethane	97	94	3	25	70-130
1,1-Dichloroethene	104	103	1	25	70-130
trans-1,2-Dichloroethene	105	103	2	25	70-130
Trichloroethene	110	105	5	25	70-130
1,2-Dichlorobenzene	98	98	0	25	70-130
1,3-Dichlorobenzene	107	102	5	25	70-130
1,4-Dichlorobenzene	97	94	3	25	70-130
Methyl tert butyl ether	101	107	6	25	70-130
p/m-Xylene	114	106	7	25	70-130
o-Xylene	111	103	7	25	70-130
cis-1,2-Dichloroethene	114	110	4	25	70-130
Dibromomethane	110	107	3	25	70-130
1,2,3-Trichloropropane	107	109	2	25	70-130
Styrene	107	100	7	25	70-130
Dichlorodifluoromethane	90	79	13	50	70-130
Acetone	101	92	9	50	70-130
Carbon disulfide	104	95	9	25	70-130
2-Butanone	92	98	6	50	70-130
4-Methyl-2-pentanone	86	89	3	50	70-130
2-Hexanone	100	102	2	50	70-130
Bromochloromethane	113	108	5	25	70-130
Tetrahydrofuran	93	93	0	25	70-130
2,2-Dichloropropane	120	113	6	50	70-130
1,2-Dibromoethane	100	99	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604978

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-05,08-10 (WG235883-1, WG235883-2)					
1,3-Dichloropropane	105	102	3	25	70-130
1,1,1,2-Tetrachloroethane	116	107	8	25	70-130
Bromobenzene	103	101	2	25	70-130
n-Butylbenzene	101	96	5	25	70-130
sec-Butylbenzene	99	94	5	25	70-130
tert-Butylbenzene	106	104	2	25	70-130
o-Chlorotoluene	107	105	2	25	70-130
p-Chlorotoluene	102	99	3	25	70-130
1,2-Dibromo-3-chloropropane	81	85	5	50	70-130
Hexachlorobutadiene	100	90	11	25	70-130
Isopropylbenzene	116	108	7	25	70-130
p-Isopropyltoluene	97	92	5	25	70-130
Naphthalene	86	82	5	25	70-130
n-Propylbenzene	111	107	4	25	70-130
1,2,3-Trichlorobenzene	79	83	5	25	70-130
1,2,4-Trichlorobenzene	80	83	4	25	70-130
1,3,5-Trimethylbenzene	110	107	3	25	70-130
1,2,4-Trimethylbenzene	103	102	1	25	70-130
Ethyl ether	105	108	3	25	70-130
Isopropyl Ether	94	97	3	25	70-130
Ethyl-Tert-Butyl-Ether	94	99	5	25	70-130
Tertiary-Amyl Methyl Ether	90	92	2	25	70-130
1,4-Dioxane	83	89	7	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	113	111	2		70-130
Toluene-d8	98	99	1		70-130
4-Bromofluorobenzene	98	101	3		70-130
Dibromofluoromethane	111	106	5		70-130
Volatile Organics by MCP 8260B for sample(s) 07 (WG235900-1, WG235900-2)					
Methylene chloride	96	94	2	25	70-130
1,1-Dichloroethane	100	96	4	25	70-130
Chloroform	94	91	3	25	70-130
Carbon tetrachloride	100	95	5	25	70-130
1,2-Dichloropropane	100	98	2	25	70-130
Dibromochloromethane	95	97	2	25	70-130
1,1,2-Trichloroethane	106	104	2	25	70-130
Tetrachloroethene	108	107	1	25	70-130
Chlorobenzene	102	104	2	25	70-130
Trichlorofluoromethane	94	91	3	25	70-130
1,2-Dichloroethane	104	100	4	25	70-130
1,1,1-Trichloroethane	100	96	4	25	70-130
Bromodichloromethane	100	98	2	25	70-130
trans-1,3-Dichloropropene	94	96	2	25	70-130
cis-1,3-Dichloropropene	91	92	1	25	70-130
1,1-Dichloropropene	95	92	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604978

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 07 (WG235900-1, WG235900-2)					
Bromoform	95	97	2	50	70-130
1,1,2,2-Tetrachloroethane	107	108	1	25	70-130
Benzene	101	96	5	25	70-130
Toluene	100	101	1	25	70-130
Ethylbenzene	102	101	1	25	70-130
Chloromethane	77	74	4	50	70-130
Bromomethane	94	90	4	50	70-130
Vinyl chloride	88	84	5	25	70-130
Chloroethane	91	86	6	25	70-130
1,1-Dichloroethene	89	86	3	25	70-130
trans-1,2-Dichloroethene	94	91	3	25	70-130
Trichloroethene	100	96	4	25	70-130
1,2-Dichlorobenzene	96	99	3	25	70-130
1,3-Dichlorobenzene	103	103	0	25	70-130
1,4-Dichlorobenzene	98	101	3	25	70-130
Methyl tert butyl ether	95	97	2	25	70-130
p/m-Xylene	106	105	1	25	70-130
o-Xylene	100	100	0	25	70-130
cis-1,2-Dichloroethene	102	98	4	25	70-130
Dibromomethane	104	102	2	25	70-130
1,2,3-Trichloropropane	102	106	4	25	70-130
Styrene	102	102	0	25	70-130
Dichlorodifluoromethane	50	50	0	50	70-130
Acetone	101	100	1	50	70-130
Carbon disulfide	96	91	5	25	70-130
2-Butanone	101	99	2	50	70-130
4-Methyl-2-pentanone	91	91	0	50	70-130
2-Hexanone	88	91	3	50	70-130
Bromochloromethane	103	101	2	25	70-130
Tetrahydrofuran	82	86	5	25	70-130
2,2-Dichloropropane	95	93	2	50	70-130
1,2-Dibromoethane	94	97	3	25	70-130
1,3-Dichloropropane	100	103	3	25	70-130
1,1,1,2-Tetrachloroethane	105	106	1	25	70-130
Bromobenzene	99	103	4	25	70-130
n-Butylbenzene	90	90	0	25	70-130
sec-Butylbenzene	94	95	1	25	70-130
tert-Butylbenzene	95	96	1	25	70-130
o-Chlorotoluene	100	102	2	25	70-130
p-Chlorotoluene	100	100	0	25	70-130
1,2-Dibromo-3-chloropropane	98	98	0	50	70-130
Hexachlorobutadiene	90	95	5	25	70-130
Isopropylbenzene	105	104	1	25	70-130
p-Isopropyltoluene	95	97	2	25	70-130
Naphthalene	74	78	5	25	70-130
n-Propylbenzene	100	101	1	25	70-130
1,2,3-Trichlorobenzene	82	85	4	25	70-130



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604978

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 07 (WG235900-1, WG235900-2)					
1,2,4-Trichlorobenzene	78	83	6	25	70-130
1,3,5-Trimethylbenzene	95	97	2	25	70-130
1,2,4-Trimethylbenzene	97	98	1	25	70-130
Ethyl ether	96	102	6	25	70-130
Isopropyl Ether	90	91	1	25	70-130
Ethyl-Tert-Butyl-Ether	87	90	3	25	70-130
Tertiary-Amyl Methyl Ether	88	89	1	25	70-130
1,4-Dioxane	66	77	15	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	95	99	4		70-130
Toluene-d8	91	99	8		70-130
4-Bromofluorobenzene	83	93	11		70-130
Dibromofluoromethane	98	102	4		70-130
Volatile Organics by MCP 8260B for sample(s) 06 (WG235900-4, WG235900-5)					
Methylene chloride	101	102	1	25	70-130
1,1-Dichloroethane	110	104	6	25	70-130
Chloroform	102	100	2	25	70-130
Carbon tetrachloride	109	107	2	25	70-130
1,2-Dichloropropane	106	105	1	25	70-130
Dibromochloromethane	99	104	5	25	70-130
1,1,2-Trichloroethane	109	112	3	25	70-130
Tetrachloroethene	117	114	3	25	70-130
Chlorobenzene	112	110	2	25	70-130
Trichlorofluoromethane	104	104	0	25	70-130
1,2-Dichloroethane	114	112	2	25	70-130
1,1,1-Trichloroethane	108	107	1	25	70-130
Bromodichloromethane	104	105	1	25	70-130
trans-1,3-Dichloropropene	99	103	4	25	70-130
cis-1,3-Dichloropropene	96	98	2	25	70-130
1,1-Dichloropropene	103	102	1	25	70-130
Bromoform	94	101	7	50	70-130
1,1,2,2-Tetrachloroethane	109	115	5	25	70-130
Benzene	108	107	1	25	70-130
Toluene	110	109	1	25	70-130
Ethylbenzene	111	110	1	25	70-130
Chloromethane	80	81	1	50	70-130
Bromomethane	93	95	2	50	70-130
Vinyl chloride	97	94	3	25	70-130
Chloroethane	95	96	1	25	70-130
1,1-Dichloroethene	94	97	3	25	70-130
trans-1,2-Dichloroethene	100	101	1	25	70-130
Trichloroethene	103	101	2	25	70-130
1,2-Dichlorobenzene	102	104	2	25	70-130
1,3-Dichlorobenzene	109	109	0	25	70-130
1,4-Dichlorobenzene	104	104	0	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604978

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 06 (WG235900-4, WG235900-5)					
Methyl tert butyl ether	96	102	6	25	70-130
p/m-Xylene	113	114	1	25	70-130
o-Xylene	107	107	0	25	70-130
cis-1,2-Dichloroethene	105	109	4	25	70-130
Dibromomethane	109	112	3	25	70-130
1,2,3-Trichloropropane	106	110	4	25	70-130
Styrene	108	108	0	25	70-130
Dichlorodifluoromethane	53	54	2	50	70-130
Acetone	104	114	9	50	70-130
Carbon disulfide	99	98	1	25	70-130
2-Butanone	100	106	6	50	70-130
4-Methyl-2-pentanone	94	96	2	50	70-130
2-Hexanone	90	94	4	50	70-130
Bromochloromethane	108	112	4	25	70-130
Tetrahydrofuran	85	92	8	25	70-130
2,2-Dichloropropane	103	103	0	50	70-130
1,2-Dibromoethane	99	104	5	25	70-130
1,3-Dichloropropane	106	109	3	25	70-130
1,1,1,2-Tetrachloroethane	110	113	3	25	70-130
Bromobenzene	106	106	0	25	70-130
n-Butylbenzene	94	95	1	25	70-130
sec-Butylbenzene	100	100	0	25	70-130
tert-Butylbenzene	101	101	0	25	70-130
o-Chlorotoluene	108	107	1	25	70-130
p-Chlorotoluene	105	105	0	25	70-130
1,2-Dibromo-3-chloropropane	95	99	4	50	70-130
Hexachlorobutadiene	97	98	1	25	70-130
Isopropylbenzene	112	112	0	25	70-130
p-Isopropyltoluene	102	101	1	25	70-130
Naphthalene	74	82	10	25	70-130
n-Propylbenzene	108	107	1	25	70-130
1,2,3-Trichlorobenzene	86	92	7	25	70-130
1,2,4-Trichlorobenzene	80	87	8	25	70-130
1,3,5-Trimethylbenzene	103	103	0	25	70-130
1,2,4-Trimethylbenzene	104	103	1	25	70-130
Ethyl ether	102	111	8	25	70-130
Isopropyl Ether	93	96	3	25	70-130
Ethyl-Tert-Butyl-Ether	90	94	4	25	70-130
Tertiary-Amyl Methyl Ether	89	93	4	25	70-130
1,4-Dioxane	69	88	24	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	116	114	2		70-130
Toluene-d8	109	113	4		70-130
4-Bromofluorobenzene	99	104	5		70-130
Dibromofluoromethane	114	112	2		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0604978

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05,08-10 (WG235883-3)							
Volatile Organics by MCP 8260B				60 8260B	0412 17:18 RY		
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604978

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05,08-10 (WG235883-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 17:18		RY
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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	110	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	103	%	70-130				
Dibromofluoromethane	105	%	70-130				
Blank Analysis for sample(s) 07 (WG235900-3)							
Volatile Organics by MCP 8260B				60 8260B	0412 16:49		PD
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				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604978

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 07 (WG235900-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0412 16:49 PD	
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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	2.0				
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	0.60				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604978

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 07 (WG235900-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0412 16:49 PD	
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	99.0	%	70-130				
Toluene-d8	93.0	%	70-130				
4-Bromofluorobenzene	93.0	%	70-130				
Dibromofluoromethane	104	%	70-130				
Blank Analysis for sample(s) 06 (WG235900-6)							
Volatile Organics by MCP 8260B				60 8260B		0413 09:09 PD	
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				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604978

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 06 (WG235900-6)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0413 09:09	PD
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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	2.0				
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	0.60				
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				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604978

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 06 (WG235900-6)							
Volatile Organics by MCP 8260B cont'd				60 8260B	0413 09:09		PD
1,4-Dioxane	ND	ug/l	250				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	114	%	70-130				
Toluene-d8	103	%	70-130				
4-Bromofluorobenzene	104	%	70-130				
Dibromofluoromethane	117	%	70-130				



**ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604978

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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
L0604978-01A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-01B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-02A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-02B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-03A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-03B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-04A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-04B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-05A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-05B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-06A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-06B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-07A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-07B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-08A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-08B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-09A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-09B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-10A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604978-10B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID    Comments

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# CHAIN OF CUSTODY

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

### Client Information

Client: ERM  
Address: 399 Boylston St  
Boston, MA 02116  
Phone: 617-646-7800  
Fax: \_\_\_\_\_  
Email: jeremy.picarel@erm.com  
 These samples have been previously analyzed by Alpha  
Other Project Specific Requirements/Comments/Detection Limits:

### Project Information

Project Name: Kaytheon End Sampling  
Project Location: Wayland, MA  
Project #: 42925  
Project Manager: Jeremy Picard  
Alpha Quote #: \_\_\_\_\_  
Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: 4/14 Time: \_\_\_\_\_

Date Rec'd in Lab: 4/7

Report Information - Date Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

ALPHA Job #: 10604978  
Billing Information  
 Same as Client info PO #: \_\_\_\_\_

Regulatory Requirements/Report Limits  
State/Fed Program: MCP Criteria: GW-1

### 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?

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	ANALYSIS	SAMPLE HANDLING	Sample Specific Comments
04978-01	DEP-1911-20060406-01	4/6/06	11:16	GW	KM	X		
-02	MW-554 MA-20060406-01	4/6/06	04:00	GW	KM	X		
-03	MW-554 MA-20060406-01	4/6/06	12:00	GW	TD	X		
-04	MW-554 MA-20060406-01	4/6/06	12:00	GW	TD	X		
-05	MW-554 MA-20060406-01	4/6/06	14:00	GW	JM	X		
-06	MW-554 MA-20060406-01	4/6/06	13:50	GW	JM	X		
-07	MW-555 MA-20060406-01	4/6/06	16:20	GW	TD	X		
-08	MW-555 MA-20060406-01	4/6/06	15:25	GW	JM	X		
-09	MW-555 MA-20060406-01	4/6/06	15:55	GW	TD	X		
-10	MW-555 MA-20060406-01	4/6/06	15:35	GW	JM	X		

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Container Type: V  
Preservative: Yes

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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.

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: L0604972  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 07-APR-2006  
Attn: Jeremy Picard Date Reported: 14-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON GW SAMPLING

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? n/a

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? YES
- 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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604972

Date Reported: 14-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604972-01	MW-556M-20060406-01	WAYLAND, MA
L0604972-02	MW-556D-20060406-01	WAYLAND, MA
L0604972-03	DUP-004-20060406-01	WAYLAND, MA
L0604972-04	MW-556S-20060406-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604972

---

Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

**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:	L0604972-01	Date Collected:	06-APR-2006 17:45
	MW-556M-20060406-01	Date Received :	07-APR-2006
Sample Matrix:	WATER	Date Reported :	14-APR-2006
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				60 8260B	0412 17:54 RY	
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			
cis-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	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			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604972-01  
MW-556M-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 17:54		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	111	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	87.0	%		70-130			
Dibromofluoromethane	107	%		70-130			

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





**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604972-02  
MW-556D-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 18:30		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	113	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	89.0	%		70-130			
Dibromofluoromethane	108	%		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:	L0604972-03	Date Collected:	06-APR-2006 00:00
	DUP-004-20060406-01	Date Received :	07-APR-2006
Sample Matrix:	WATER	Date Reported :	14-APR-2006
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				60 8260B	0412 19:07 RY	
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	0.86	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			
cis-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	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			
cis-1,2-Dichloroethene	2.7	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604972-03  
DUP-004-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 19:07		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	109	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	96.0	%		70-130			
Dibromofluoromethane	104	%		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:	L0604972-04	Date Collected:	06-APR-2006 17:40
	MW-556S-20060406-01	Date Received :	07-APR-2006
Sample Matrix:	WATER	Date Reported :	14-APR-2006
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				60 8260B	0412 19:43	RY
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			
cis-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	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			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604972-04  
MW-556S-20060406-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0412 19:43		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	113	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	93.0	%		70-130			
Dibromofluoromethane	105	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0604972

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-04 (WG235883-1, WG235883-2)					
Methylene chloride	108	106	2	25	70-130
1,1-Dichloroethane	111	108	3	25	70-130
Chloroform	113	107	5	25	70-130
Carbon tetrachloride	130	118	10	25	70-130
1,2-Dichloropropane	112	109	3	25	70-130
Dibromochloromethane	103	101	2	25	70-130
1,1,2-Trichloroethane	107	104	3	25	70-130
Tetrachloroethene	115	106	8	25	70-130
Chlorobenzene	107	103	4	25	70-130
Trichlorofluoromethane	119	109	9	25	70-130
1,2-Dichloroethane	117	110	6	25	70-130
1,1,1-Trichloroethane	122	113	8	25	70-130
Bromodichloromethane	113	109	4	25	70-130
trans-1,3-Dichloropropene	107	102	5	25	70-130
cis-1,3-Dichloropropene	97	95	2	25	70-130
1,1-Dichloropropene	113	107	5	25	70-130
Bromoform	105	102	3	50	70-130
1,1,2,2-Tetrachloroethane	94	98	4	25	70-130
Benzene	111	107	4	25	70-130
Toluene	111	102	8	25	70-130
Ethylbenzene	116	107	8	25	70-130
Chloromethane	86	83	4	50	70-130
Bromomethane	78	84	7	50	70-130
Vinyl chloride	106	98	8	25	70-130
Chloroethane	97	94	3	25	70-130
1,1-Dichloroethene	104	103	1	25	70-130
trans-1,2-Dichloroethene	105	103	2	25	70-130
Trichloroethene	110	105	5	25	70-130
1,2-Dichlorobenzene	98	98	0	25	70-130
1,3-Dichlorobenzene	107	102	5	25	70-130
1,4-Dichlorobenzene	97	94	3	25	70-130
Methyl tert butyl ether	101	107	6	25	70-130
p/m-Xylene	114	106	7	25	70-130
o-Xylene	111	103	7	25	70-130
cis-1,2-Dichloroethene	114	110	4	25	70-130
Dibromomethane	110	107	3	25	70-130
1,2,3-Trichloropropane	107	109	2	25	70-130
Styrene	107	100	7	25	70-130
Dichlorodifluoromethane	90	79	13	50	70-130
Acetone	101	92	9	50	70-130
Carbon disulfide	104	95	9	25	70-130
2-Butanone	92	98	6	50	70-130
4-Methyl-2-pentanone	86	89	3	50	70-130
2-Hexanone	100	102	2	50	70-130
Bromochloromethane	113	108	5	25	70-130
Tetrahydrofuran	93	93	0	25	70-130
2,2-Dichloropropane	120	113	6	50	70-130
1,2-Dibromoethane	100	99	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604972

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-04 (WG235883-1, WG235883-2)					
1,3-Dichloropropane	105	102	3	25	70-130
1,1,1,2-Tetrachloroethane	116	107	8	25	70-130
Bromobenzene	103	101	2	25	70-130
n-Butylbenzene	101	96	5	25	70-130
sec-Butylbenzene	99	94	5	25	70-130
tert-Butylbenzene	106	104	2	25	70-130
o-Chlorotoluene	107	105	2	25	70-130
p-Chlorotoluene	102	99	3	25	70-130
1,2-Dibromo-3-chloropropane	81	85	5	50	70-130
Hexachlorobutadiene	100	90	11	25	70-130
Isopropylbenzene	116	108	7	25	70-130
p-Isopropyltoluene	97	92	5	25	70-130
Naphthalene	86	82	5	25	70-130
n-Propylbenzene	111	107	4	25	70-130
1,2,3-Trichlorobenzene	79	83	5	25	70-130
1,2,4-Trichlorobenzene	80	83	4	25	70-130
1,3,5-Trimethylbenzene	110	107	3	25	70-130
1,2,4-Trimethylbenzene	103	102	1	25	70-130
Ethyl ether	105	108	3	25	70-130
Isopropyl Ether	94	97	3	25	70-130
Ethyl-Tert-Butyl-Ether	94	99	5	25	70-130
Tertiary-Amyl Methyl Ether	90	92	2	25	70-130
1,4-Dioxane	83	89	7	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	113	111	2		70-130
Toluene-d8	98	99	1		70-130
4-Bromofluorobenzene	98	101	3		70-130
Dibromofluoromethane	111	106	5		70-130



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604972

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-04 (WG235883-3)							
Volatile Organics by MCP 8260B				60 8260B	0412 17:18 RY		
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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.				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604972

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-04 (WG235883-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0412 17:18 RY	
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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	110	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	103	%		70-130			
Dibromofluoromethane	105	%		70-130			

**ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604972

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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
L0604972-01A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-01B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-02A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-02B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-03A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-03B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-04A	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04
L0604972-04B	Vial HCl preserved	A	N/A	2.0C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID    Comments

---



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

# CHAIN OF CUSTODY

## Client Information

Client: ERBY  
 Address: 399 BOSTON ST  
BOSTON MA 02116  
 Phone: 617-646-7800  
 Fax:  
 Email: crewing.pierce@erby.com

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments/Detection Limits:

## Project Information

Project Name: Rutherford G&S Sample  
 Project Location: Weymouth MA  
 Project #: 12025  
 Project Manager: J. Pierce  
 ALPHA Quote #:

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
 Date Due: 4/14 Time:

Date Rec'd In Lab: 4/17

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Regulatory Requirements/Report Limits

State/Fed Program: MCPD Criteria: CVI-1

## MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	Analysis	Sample Specific Comments
<u>01979d</u>	<u>HW-SS6H-200506-07</u>	<u>4/6/06</u>	<u>17:45</u>	<u>GW</u>	<u>JM</u>	<u>SD216</u>	
<u>-02</u>	<u>HW-SS6D-200506-01</u>	<u>4/6/06</u>	<u>17:30</u>	<u>GW</u>	<u>JM</u>		
<u>-03</u>	<u>DUP-004-200506-07</u>	<u>4/6/06</u>	<u>08:08</u>	<u>GW</u>	<u>JM</u>		
<u>-04</u>	<u>HW-SS6S-200506-01</u>	<u>4/6/06</u>	<u>17:40</u>	<u>GW</u>	<u>ID</u>		

## QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Relinquished By: [Signature]  
4/17/06

Date/Time: 4/17/06

Received By: [Signature]  
4/17/06

Date/Time: 4/17/06

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.

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: L0604775  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 06-APR-2006  
Attn: Jeremy Picard Date Reported: 11-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON WAYLAND

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604775

Date Reported: 11-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604775-01	MW-266M1-20060405-01	WAYLAND, MA
L0604775-02	MW-266M2-20060405-01	WAYLAND, MA
L0604775-03	MW-265M-20060405-01	WAYLAND, MA
L0604775-04	MW-264M-20060405-01	WAYLAND, MA
L0604775-05	MW-262S-20060405-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604775

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MCP Related Narratives

Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

L0604775-01 required re-analysis on a 10x 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.

The following samples have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples:

L0604775-03: 40x

L0604775-04: 5x

L0604775-05: 2x

In reference to question E:

The WG235382-7 LCSD % recovery for 1,2,4-Trichlorobenzene is below the acceptance criteria for the method.

WG235382-1,2

The MS % recovery for 1,2,4-Trichlorobenzene is below the acceptance criteria for the method.

The MS/MSD RPD for cis-1,2-Dichloroethene is above the acceptance criteria for the method.



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: L0604775-01 Date Collected: 05-APR-2006 09:17  
MW-266M1-20060405-01 Date Received : 06-APR-2006  
Sample Matrix: WATER Date Reported : 11-APR-2006  
Condition of Sample: Satisfactory Field Prep: None  
Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0409 19:15 PD		
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	53	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				
cis-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	22	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	1.2	ug/l	0.75				
Trichloroethene	>100	ug/l	.5				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	>100	ug/l	.5				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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: L0604775-01  
MW-266M1-20060405-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 19:15 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	115	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	101	%		70-130			
Dibromofluoromethane	116	%		70-130			
Volatile Organics by MCP 8260B				60 8260B	0410 13:10 PD		
Trichloroethene	290	ug/l		5.0			
cis-1,2-Dichloroethene	310	ug/l		5.0			
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	127	%		70-130			
Toluene-d8	96.0	%		70-130			
4-Bromofluorobenzene	103	%		70-130			
Dibromofluoromethane	118	%		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

<b>Laboratory Sample Number:</b> L0604775-02	<b>Date Collected:</b> 05-APR-2006 10:40
MW-266M2-20060405-01	<b>Date Received :</b> 06-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0410 13:47 PD	
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			
cis-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	9.7	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			
cis-1,2-Dichloroethene	1.8	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604775-02  
MW-266M2-20060405-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0410 13:47 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	125	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	98.0	%		70-130			
Dibromofluoromethane	120	%		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: L0604775-03      Date Collected: 05-APR-2006 11:45  
MW-265M-20060405-01      Date Received : 06-APR-2006  
Sample Matrix: WATER      Date Reported : 11-APR-2006  
Condition of Sample: Satisfactory      Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0409 20:27 PD		
Methylene chloride	ND	ug/l	200				
1,1-Dichloroethane	ND	ug/l	30.				
Chloroform	ND	ug/l	30.				
Carbon tetrachloride	ND	ug/l	20.				
1,2-Dichloropropane	ND	ug/l	70.				
Dibromochloromethane	ND	ug/l	20.				
1,1,2-Trichloroethane	ND	ug/l	30.				
Tetrachloroethene	54	ug/l	20.				
Chlorobenzene	ND	ug/l	20.				
1,2-Dichloroethane	ND	ug/l	20.				
1,1,1-Trichloroethane	ND	ug/l	20.				
Bromodichloromethane	ND	ug/l	20.				
trans-1,3-Dichloropropene	ND	ug/l	20.				
cis-1,3-Dichloropropene	ND	ug/l	20.				
Bromoform	ND	ug/l	80.				
1,1,2,2-Tetrachloroethane	ND	ug/l	20.				
Chloromethane	ND	ug/l	100				
Vinyl chloride	310	ug/l	40.				
Chloroethane	ND	ug/l	40.				
1,1-Dichloroethene	ND	ug/l	20.				
trans-1,2-Dichloroethene	ND	ug/l	30.				
Trichloroethene	1100	ug/l	20.				
1,2-Dichlorobenzene	ND	ug/l	100				
1,3-Dichlorobenzene	ND	ug/l	100				
1,4-Dichlorobenzene	ND	ug/l	100				
cis-1,2-Dichloroethene	2300	ug/l	20.				
Dichlorodifluoromethane	ND	ug/l	200				
1,2-Dibromoethane	ND	ug/l	80.				
1,3-Dichloropropane	ND	ug/l	100				
1,1,1,2-Tetrachloroethane	ND	ug/l	20.				
o-Chlorotoluene	ND	ug/l	100				
p-Chlorotoluene	ND	ug/l	100				
Hexachlorobutadiene	ND	ug/l	24.				
1,2,4-Trichlorobenzene	ND	ug/l	100				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604775-03  
MW-265M-20060405-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 20:27 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	120	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	104	%		70-130			
Dibromofluoromethane	114	%		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:	L0604775-04	Date Collected:	05-APR-2006 13:54
	MW-264M-20060405-01	Date Received :	06-APR-2006
Sample Matrix:	WATER	Date Reported :	11-APR-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	6-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0409 21:03 PD	
Methylene chloride	ND	ug/l	25.			
1,1-Dichloroethane	ND	ug/l	3.8			
Chloroform	ND	ug/l	3.8			
Carbon tetrachloride	ND	ug/l	2.5			
1,2-Dichloropropane	ND	ug/l	8.8			
Dibromochloromethane	ND	ug/l	2.5			
1,1,2-Trichloroethane	ND	ug/l	3.8			
Tetrachloroethene	7.6	ug/l	2.5			
Chlorobenzene	ND	ug/l	2.5			
1,2-Dichloroethane	ND	ug/l	2.5			
1,1,1-Trichloroethane	ND	ug/l	2.5			
Bromodichloromethane	ND	ug/l	2.5			
trans-1,3-Dichloropropene	ND	ug/l	2.5			
cis-1,3-Dichloropropene	ND	ug/l	2.5			
Bromoform	ND	ug/l	10.			
1,1,2,2-Tetrachloroethane	ND	ug/l	2.5			
Chloromethane	ND	ug/l	12.			
Vinyl chloride	26	ug/l	5.0			
Chloroethane	ND	ug/l	5.0			
1,1-Dichloroethene	ND	ug/l	2.5			
trans-1,2-Dichloroethene	ND	ug/l	3.8			
Trichloroethene	59	ug/l	2.5			
1,2-Dichlorobenzene	ND	ug/l	12.			
1,3-Dichlorobenzene	ND	ug/l	12.			
1,4-Dichlorobenzene	ND	ug/l	12.			
cis-1,2-Dichloroethene	200	ug/l	2.5			
Dichlorodifluoromethane	ND	ug/l	25.			
1,2-Dibromoethane	ND	ug/l	10.			
1,3-Dichloropropane	ND	ug/l	12.			
1,1,1,2-Tetrachloroethane	ND	ug/l	2.5			
o-Chlorotoluene	ND	ug/l	12.			
p-Chlorotoluene	ND	ug/l	12.			
Hexachlorobutadiene	ND	ug/l	3.0			
1,2,4-Trichlorobenzene	ND	ug/l	12.			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604775-04  
MW-264M-20060405-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 21:03		PD
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	115	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	101	%		70-130			
Dibromofluoromethane	114	%		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

<b>Laboratory Sample Number:</b> L0604775-05	<b>Date Collected:</b> 05-APR-2006 15:35
MW-262S-20060405-01	<b>Date Received :</b> 06-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0410 10:58	RY
Methylene chloride	ND	ug/l	10.			
1,1-Dichloroethane	ND	ug/l	1.5			
Chloroform	ND	ug/l	1.5			
Carbon tetrachloride	ND	ug/l	1.0			
1,2-Dichloropropane	ND	ug/l	3.5			
Dibromochloromethane	ND	ug/l	1.0			
1,1,2-Trichloroethane	ND	ug/l	1.5			
Tetrachloroethene	11	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
1,2-Dichloroethane	ND	ug/l	1.0			
1,1,1-Trichloroethane	ND	ug/l	1.0			
Bromodichloromethane	ND	ug/l	1.0			
trans-1,3-Dichloropropene	ND	ug/l	1.0			
cis-1,3-Dichloropropene	ND	ug/l	1.0			
Bromoform	ND	ug/l	4.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0			
Chloromethane	ND	ug/l	5.0			
Vinyl chloride	ND	ug/l	2.0			
Chloroethane	ND	ug/l	2.0			
1,1-Dichloroethene	ND	ug/l	1.0			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
Trichloroethene	100	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
cis-1,2-Dichloroethene	ND	ug/l	1.0			
Dichlorodifluoromethane	ND	ug/l	10.			
1,2-Dibromoethane	ND	ug/l	4.0			
1,3-Dichloropropane	ND	ug/l	5.0			
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0			
o-Chlorotoluene	ND	ug/l	5.0			
p-Chlorotoluene	ND	ug/l	5.0			
Hexachlorobutadiene	ND	ug/l	1.2			
1,2,4-Trichlorobenzene	ND	ug/l	5.0			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604775-05  
MW-262S-20060405-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0410 10:58		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	119	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	98.0	%		70-130			
Dibromofluoromethane	111	%		70-130			

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604775

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01,03-04 (WG235382-3, WG235382-4)					
Methylene chloride	99	106	7	25	70-130
1,1-Dichloroethane	99	94	5	25	70-130
Chloroform	102	110	8	25	70-130
Carbon tetrachloride	113	126	11	25	70-130
1,2-Dichloropropane	100	104	4	25	70-130
Dibromochloromethane	95	98	3	25	70-130
1,1,2-Trichloroethane	96	100	4	25	70-130
Tetrachloroethene	97	110	13	25	70-130
Chlorobenzene	98	103	5	25	70-130
1,2-Dichloroethane	102	105	3	25	70-130
1,1,1-Trichloroethane	106	114	7	25	70-130
Bromodichloromethane	105	111	6	25	70-130
trans-1,3-Dichloropropene	98	100	2	25	70-130
cis-1,3-Dichloropropene	89	89	0	25	70-130
Bromoform	98	101	3	50	70-130
1,1,2,2-Tetrachloroethane	93	91	2	25	70-130
Chloromethane	93	94	1	50	70-130
Vinyl chloride	107	115	7	25	70-130
Chloroethane	95	98	3	25	70-130
1,1-Dichloroethene	105	106	1	25	70-130
trans-1,2-Dichloroethene	101	103	2	25	70-130
Trichloroethene	100	103	3	25	70-130
1,2-Dichlorobenzene	95	97	2	25	70-130
1,3-Dichlorobenzene	98	101	3	25	70-130
1,4-Dichlorobenzene	92	96	4	25	70-130
cis-1,2-Dichloroethene	104	107	3	25	70-130
Dichlorodifluoromethane	103	113	9	50	70-130
1,2-Dibromoethane	93	97	4	25	70-130
1,3-Dichloropropane	98	103	5	25	70-130
1,1,1,2-Tetrachloroethane	102	113	10	25	70-130
o-Chlorotoluene	100	104	4	25	70-130
p-Chlorotoluene	99	101	2	25	70-130
Hexachlorobutadiene	81	88	8	25	70-130
1,2,4-Trichlorobenzene	80	72	11	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	102	108	6		70-130
Toluene-d8	96	97	1		70-130
4-Bromofluorobenzene	100	97	3		70-130
Dibromofluoromethane	107	105	2		70-130
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG235382-6, WG235382-7)					
Methylene chloride	99	100	1	25	70-130
1,1-Dichloroethane	101	99	2	25	70-130
Chloroform	101	103	2	25	70-130
Carbon tetrachloride	114	115	1	25	70-130
1,2-Dichloropropane	98	98	0	25	70-130
Dibromochloromethane	96	93	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604775

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG235382-6, WG235382-7)					
1,1,2-Trichloroethane	98	98	0	25	70-130
Tetrachloroethene	102	101	1	25	70-130
Chlorobenzene	98	98	0	25	70-130
1,2-Dichloroethane	102	106	4	25	70-130
1,1,1-Trichloroethane	108	110	2	25	70-130
Bromodichloromethane	102	104	2	25	70-130
trans-1,3-Dichloropropene	100	99	1	25	70-130
cis-1,3-Dichloropropene	88	82	7	25	70-130
Bromoform	100	101	1	50	70-130
1,1,2,2-Tetrachloroethane	90	86	5	25	70-130
Chloromethane	91	90	1	50	70-130
Vinyl chloride	105	105	0	25	70-130
Chloroethane	92	90	2	25	70-130
1,1-Dichloroethene	104	93	11	25	70-130
trans-1,2-Dichloroethene	100	96	4	25	70-130
Trichloroethene	97	92	5	25	70-130
1,2-Dichlorobenzene	92	89	3	25	70-130
1,3-Dichlorobenzene	98	92	6	25	70-130
1,4-Dichlorobenzene	91	87	4	25	70-130
cis-1,2-Dichloroethene	102	98	4	25	70-130
Dichlorodifluoromethane	100	104	4	50	70-130
1,2-Dibromoethane	96	88	9	25	70-130
1,3-Dichloropropane	98	96	2	25	70-130
1,1,1,2-Tetrachloroethane	104	104	0	25	70-130
o-Chlorotoluene	97	93	4	25	70-130
p-Chlorotoluene	94	89	5	25	70-130
Hexachlorobutadiene	86	82	5	25	70-130
1,2,4-Trichlorobenzene	73	65	12	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	106	108	2		70-130
Toluene-d8	98	97	1		70-130
4-Bromofluorobenzene	98	94	4		70-130
Dibromofluoromethane	105	111	6		70-130
Volatile Organics by MCP 8260B for sample(s) 05 (WG235447-1, WG235447-2)					
Methylene chloride	95	97	2	25	70-130
1,1-Dichloroethane	103	101	2	25	70-130
Chloroform	100	98	2	25	70-130
Carbon tetrachloride	90	91	1	25	70-130
1,2-Dichloropropane	100	99	1	25	70-130
Dibromochloromethane	86	88	2	25	70-130
1,1,2-Trichloroethane	92	93	1	25	70-130
Tetrachloroethene	99	90	10	25	70-130
Chlorobenzene	94	93	1	25	70-130
Trichlorofluoromethane	119	114	4	25	70-130
1,2-Dichloroethane	102	105	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604775

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 05 (WG235447-1, WG235447-2)					
1,1,1-Trichloroethane	102	100	2	25	70-130
Bromodichloromethane	99	101	2	25	70-130
trans-1,3-Dichloropropene	77	80	4	25	70-130
cis-1,3-Dichloropropene	76	80	5	25	70-130
1,1-Dichloropropene	101	99	2	25	70-130
Bromoform	90	94	4	50	70-130
1,1,2,2-Tetrachloroethane	82	88	7	25	70-130
Benzene	100	98	2	25	70-130
Toluene	99	93	6	25	70-130
Ethylbenzene	100	96	4	25	70-130
Chloromethane	106	102	4	50	70-130
Bromomethane	92	90	2	50	70-130
Vinyl chloride	110	104	6	25	70-130
Chloroethane	101	97	4	25	70-130
1,1-Dichloroethene	93	93	0	25	70-130
trans-1,2-Dichloroethene	94	94	0	25	70-130
Trichloroethene	98	96	2	25	70-130
1,2-Dichlorobenzene	87	88	1	25	70-130
1,3-Dichlorobenzene	92	90	2	25	70-130
1,4-Dichlorobenzene	92	90	2	25	70-130
Methyl tert butyl ether	83	91	9	25	70-130
p/m-Xylene	103	99	4	25	70-130
o-Xylene	102	100	2	25	70-130
cis-1,2-Dichloroethene	98	96	2	25	70-130
Dibromomethane	97	101	4	25	70-130
1,2,3-Trichloropropane	92	98	6	25	70-130
Styrene	104	102	2	25	70-130
Dichlorodifluoromethane	80	78	3	50	70-130
Acetone	118	129	9	50	70-130
Carbon disulfide	85	82	4	25	70-130
2-Butanone	97	107	10	50	70-130
4-Methyl-2-pentanone	81	93	14	50	70-130
2-Hexanone	88	98	11	50	70-130
Bromochloromethane	96	98	2	25	70-130
Tetrahydrofuran	82	96	16	25	70-130
2,2-Dichloropropane	81	82	1	50	70-130
1,2-Dibromoethane	84	89	6	25	70-130
1,3-Dichloropropane	89	92	3	25	70-130
1,1,1,2-Tetrachloroethane	97	95	2	25	70-130
Bromobenzene	90	87	3	25	70-130
n-Butylbenzene	103	98	5	25	70-130
sec-Butylbenzene	97	92	5	25	70-130
tert-Butylbenzene	96	92	4	25	70-130
o-Chlorotoluene	100	96	4	25	70-130
p-Chlorotoluene	97	93	4	25	70-130
1,2-Dibromo-3-chloropropane	80	92	14	50	70-130
Hexachlorobutadiene	81	81	0	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604775

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 05 (WG235447-1, WG235447-2)					
Isopropylbenzene	109	106	3	25	70-130
p-Isopropyltoluene	97	93	4	25	70-130
Naphthalene	72	81	12	25	70-130
n-Propylbenzene	100	94	6	25	70-130
1,2,3-Trichlorobenzene	75	81	8	25	70-130
1,2,4-Trichlorobenzene	76	82	8	25	70-130
1,3,5-Trimethylbenzene	98	95	3	25	70-130
1,2,4-Trimethylbenzene	96	92	4	25	70-130
Ethyl ether	89	98	10	25	70-130
Isopropyl Ether	101	102	1	25	70-130
Ethyl-Tert-Butyl-Ether	84	90	7	25	70-130
Tertiary-Amyl Methyl Ether	75	80	6	25	70-130
1,4-Dioxane	87	100	14	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	127	115	10		70-130
Toluene-d8	107	101	6		70-130
4-Bromofluorobenzene	96	94	2		70-130
Dibromofluoromethane	116	110	5		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH MS/MSD ANALYSIS**

Laboratory Job Number: L0604775

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by MCP 8260B for sample(s) 01-04 (L0604775-04, WG235382-2)					
Methylene chloride	99	93	6	30	70-130
1,1-Dichloroethane	104	94	10	30	70-130
Chloroform	107	97	10	30	70-130
Carbon tetrachloride	119	107	11	30	70-130
1,2-Dichloropropane	105	97	8	30	70-130
Dibromochloromethane	95	92	3	30	70-130
1,1,2-Trichloroethane	100	94	6	30	70-130
Tetrachloroethene	103	96	7	30	70-130
Chlorobenzene	98	94	4	30	70-130
1,2-Dichloroethane	110	100	10	30	70-130
1,1,1-Trichloroethane	112	102	9	30	70-130
Bromodichloromethane	106	100	6	30	70-130
trans-1,3-Dichloropropene	101	97	4	30	70-130
cis-1,3-Dichloropropene	86	81	6	30	70-130
Bromoform	102	96	6	30	70-130
1,1,2,2-Tetrachloroethane	93	93	0	30	70-130
Chloromethane	86	80	7	30	70-130
Vinyl chloride	103	92	11	30	70-130
Chloroethane	92	86	7	30	70-130
1,1-Dichloroethene	96	93	3	30	70-130
trans-1,2-Dichloroethene	97	93	4	30	70-130
Trichloroethene	102	81	23	30	70-130
1,2-Dichlorobenzene	90	89	1	30	70-130
1,3-Dichlorobenzene	93	90	3	30	70-130
1,4-Dichlorobenzene	86	85	1	30	70-130
cis-1,2-Dichloroethene	126	90	33	30	70-130
Dichlorodifluoromethane	97	81	18	30	70-130
1,2-Dibromoethane	97	92	5	30	70-130
1,3-Dichloropropane	102	96	6	30	70-130
1,1,1,2-Tetrachloroethane	108	98	10	30	70-130
o-Chlorotoluene	95	93	2	30	70-130
p-Chlorotoluene	92	90	2	30	70-130
Hexachlorobutadiene	81	76	6	30	70-130
1,2,4-Trichlorobenzene	65	70	7	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	117	110	6		70-130
Toluene-d8	101	99	2		70-130
4-Bromofluorobenzene	98	98	0		70-130
Dibromofluoromethane	113	105	7		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0604775

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01,03-04 (WG235382-5)							
Volatile Organics by MCP 8260B				60 8260B	0409 11:22 PD		
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	104	%	70-130				
Blank Analysis for sample(s) 01-02 (WG235382-8)							
Volatile Organics by MCP 8260B				60 8260B	0410 10:41 PD		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604775

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG235382-8)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0410 10:41	PD
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109	%	70-130				
Toluene-d8	96.0	%	70-130				
4-Bromofluorobenzene	102	%	70-130				
Dibromofluoromethane	109	%	70-130				
Blank Analysis for sample(s) 05 (WG235447-3)							
Volatile Organics by MCP 8260B				60 8260B		0410 10:22	RY
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				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604775

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05 (WG235447-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0410 10:22	RY
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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	2.0				
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				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604775

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05 (WG235447-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0410 10:22	RY
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	0.60				
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	120	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	98.0	%		70-130			
Dibromofluoromethane	111	%		70-130			

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604775

---

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
L0604775-01A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-01B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-02A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-02B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-03A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-03B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04C	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04D	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04E	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-04F	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-05A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04
L0604775-05B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID Comments

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L0604775-01A This container has not been properly returned to CUSTODY! It was last assigned to LKING for department CUSTODY on 04/06/06 17:16 .



# 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**

Address: **399 Boylston St.**

**Boston, MA 02116**

Phone: **617-644-7800**

Fax: **617-267-6447**

Email: **jeremy.picard@erm.com**

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments/Detection Limits:

### Project Information

Project Name: **Raytheon Wayland**

Project Location: **Wayland MA**

Project #: **42925**

Project Manager: **Jeremy Picard**

ALPHA Quote #:

Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: **4/13/06** Time:

Date Rec'd in Lab: **4/6/06**

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

### Regulatory Requirements/Report Limits

State/Fed Program: **MCP** Criteria: **GW-1**

### 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?

ALPHA Job #: **0604725**

### Billing Information

Same as Client info PO #:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
060475-01	MW-20060405-01	4/5/06	9:17	GW	RM
-02	MW-20060405-01	4/5/06	10:40	GW	RM
03	MW-20060405-01	4/5/06	11:45	GW	RM
04	MW-20060405-01	4/5/06	13:54	GW	RM
	MW-20060405-01-MS	4/5/06	13:54	GW	RM
	MW-20060405-01-MSD	4/5/06	13:54	GW	RM
05	MW-20060405-01	4/5/06	14:35	GW	RM

SAMPLE HANDLING	SAMPLE SPECIFIC COMMENTS
<input checked="" type="checkbox"/> Done	
<input type="checkbox"/> Not needed	
<input type="checkbox"/> Lab to do	
<input type="checkbox"/> Preservation	
<input type="checkbox"/> Lab to do	
(Please specify below)	

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP?

Relinquished By:	Date/Time	Container Type	Preservative	Received By:	Date/Time
<i>[Signature]</i>	4/6/06 10:50	V		<i>[Signature]</i>	4/6/06 10:50
<i>[Signature]</i>	4/6/06 17:30	B		<i>[Signature]</i>	4/6/06 17:30

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.

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: L0604761  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 05-APR-2006  
Attn: Jeremy Picard Date Reported: 11-APR-2006  
Project Number: 42925 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? N/A

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604761

Date Reported: 11-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604761-01	MW-553-20060404-01	WAYLAND
L0604761-02	MW-552-20060404-01	WAYLAND
L0604761-03	MW-551-20060404-01	WAYLAND
L0604761-04	MW-267S-20060404-01	WAYLAND



ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604761

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MCP Related Narratives

Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

The following samples have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples:

L0604761-01, -04: 10x

L0604761-02: 200x

In reference to question E:

The WG235382-7 LCSD % recovery for 1,2,4-Trichlorobenzene is below the acceptance criteria for the method.

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

<b>Laboratory Sample Number:</b> L0604761-01 MW-553-20060404-01 <b>Sample Matrix:</b> WATER	<b>Date Collected:</b> 04-APR-2006 08:40 <b>Date Received :</b> 05-APR-2006 <b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B		0410 11:19 PD	
Methylene chloride	ND	ug/l	50.				
1,1-Dichloroethane	ND	ug/l	7.5				
Chloroform	ND	ug/l	7.5				
Carbon tetrachloride	ND	ug/l	5.0				
1,2-Dichloropropane	ND	ug/l	18.				
Dibromochloromethane	ND	ug/l	5.0				
1,1,2-Trichloroethane	ND	ug/l	7.5				
Tetrachloroethene	24	ug/l	5.0				
Chlorobenzene	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	5.0				
1,1,1-Trichloroethane	ND	ug/l	5.0				
Bromodichloromethane	ND	ug/l	5.0				
trans-1,3-Dichloropropene	ND	ug/l	5.0				
cis-1,3-Dichloropropene	ND	ug/l	5.0				
Bromoform	ND	ug/l	20.				
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0				
Chloromethane	ND	ug/l	25.				
Vinyl chloride	ND	ug/l	10.				
Chloroethane	ND	ug/l	10.				
1,1-Dichloroethene	ND	ug/l	5.0				
trans-1,2-Dichloroethene	ND	ug/l	7.5				
Trichloroethene	400	ug/l	5.0				
1,2-Dichlorobenzene	ND	ug/l	25.				
1,3-Dichlorobenzene	ND	ug/l	25.				
1,4-Dichlorobenzene	ND	ug/l	25.				
cis-1,2-Dichloroethene	68	ug/l	5.0				
Dichlorodifluoromethane	ND	ug/l	50.				
1,2-Dibromoethane	ND	ug/l	20.				
1,3-Dichloropropane	ND	ug/l	25.				
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0				
o-Chlorotoluene	ND	ug/l	25.				
p-Chlorotoluene	ND	ug/l	25.				
Hexachlorobutadiene	ND	ug/l	6.0				
1,2,4-Trichlorobenzene	ND	ug/l	25.				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604761-01  
MW-553-20060404-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0410 11:19 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	113	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	99.0	%		70-130			
Dibromofluoromethane	111	%		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

<b>Laboratory Sample Number:</b> L0604761-02	<b>Date Collected:</b> 04-APR-2006 09:55
MW-552-20060404-01	<b>Date Received :</b> 05-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0410 11:56 PD	
Methylene chloride	ND	ug/l	1000			
1,1-Dichloroethane	ND	ug/l	150			
Chloroform	ND	ug/l	150			
Carbon tetrachloride	ND	ug/l	100			
1,2-Dichloropropane	ND	ug/l	350			
Dibromochloromethane	ND	ug/l	100			
1,1,2-Trichloroethane	ND	ug/l	150			
Tetrachloroethene	230	ug/l	100			
Chlorobenzene	ND	ug/l	100			
1,2-Dichloroethane	ND	ug/l	100			
1,1,1-Trichloroethane	ND	ug/l	100			
Bromodichloromethane	ND	ug/l	100			
trans-1,3-Dichloropropene	ND	ug/l	100			
cis-1,3-Dichloropropene	ND	ug/l	100			
Bromoform	ND	ug/l	400			
1,1,2,2-Tetrachloroethane	ND	ug/l	100			
Chloromethane	ND	ug/l	500			
Vinyl chloride	ND	ug/l	200			
Chloroethane	ND	ug/l	200			
1,1-Dichloroethene	ND	ug/l	100			
trans-1,2-Dichloroethene	ND	ug/l	150			
Trichloroethene	6200	ug/l	100			
1,2-Dichlorobenzene	ND	ug/l	500			
1,3-Dichlorobenzene	ND	ug/l	500			
1,4-Dichlorobenzene	ND	ug/l	500			
cis-1,2-Dichloroethene	310	ug/l	100			
Dichlorodifluoromethane	ND	ug/l	1000			
1,2-Dibromoethane	ND	ug/l	400			
1,3-Dichloropropane	ND	ug/l	500			
1,1,1,2-Tetrachloroethane	ND	ug/l	100			
o-Chlorotoluene	ND	ug/l	500			
p-Chlorotoluene	ND	ug/l	500			
Hexachlorobutadiene	ND	ug/l	120			
1,2,4-Trichlorobenzene	ND	ug/l	500			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604761-02  
MW-552-20060404-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0410 11:56 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	119	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	98.0	%		70-130			
Dibromofluoromethane	113	%		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

<b>Laboratory Sample Number:</b> L0604761-03	<b>Date Collected:</b> 04-APR-2006 11:25
MW-551-20060404-01	<b>Date Received :</b> 05-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0409 14:59 PD	
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	0.70	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			
cis-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	40	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			
cis-1,2-Dichloroethene	0.58	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604761-03  
MW-551-20060404-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 14:59 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	115	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	102	%		70-130			
Dibromofluoromethane	110	%		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

<b>Laboratory Sample Number:</b> L0604761-04	<b>Date Collected:</b> 04-APR-2006 13:20
MW-267S-20060404-01	<b>Date Received :</b> 05-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 11-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0409 15:36 PD	
Methylene chloride	ND	ug/l	50.			
1,1-Dichloroethane	ND	ug/l	7.5			
Chloroform	ND	ug/l	7.5			
Carbon tetrachloride	ND	ug/l	5.0			
1,2-Dichloropropane	ND	ug/l	18.			
Dibromochloromethane	ND	ug/l	5.0			
1,1,2-Trichloroethane	ND	ug/l	7.5			
Tetrachloroethene	6.1	ug/l	5.0			
Chlorobenzene	ND	ug/l	5.0			
1,2-Dichloroethane	ND	ug/l	5.0			
1,1,1-Trichloroethane	ND	ug/l	5.0			
Bromodichloromethane	ND	ug/l	5.0			
trans-1,3-Dichloropropene	ND	ug/l	5.0			
cis-1,3-Dichloropropene	ND	ug/l	5.0			
Bromoform	ND	ug/l	20.			
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0			
Chloromethane	ND	ug/l	25.			
Vinyl chloride	ND	ug/l	10.			
Chloroethane	ND	ug/l	10.			
1,1-Dichloroethene	ND	ug/l	5.0			
trans-1,2-Dichloroethene	ND	ug/l	7.5			
Trichloroethene	400	ug/l	5.0			
1,2-Dichlorobenzene	ND	ug/l	25.			
1,3-Dichlorobenzene	ND	ug/l	25.			
1,4-Dichlorobenzene	ND	ug/l	25.			
cis-1,2-Dichloroethene	67	ug/l	5.0			
Dichlorodifluoromethane	ND	ug/l	50.			
1,2-Dibromoethane	ND	ug/l	20.			
1,3-Dichloropropane	ND	ug/l	25.			
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0			
o-Chlorotoluene	ND	ug/l	25.			
p-Chlorotoluene	ND	ug/l	25.			
Hexachlorobutadiene	ND	ug/l	6.0			
1,2,4-Trichlorobenzene	ND	ug/l	25.			

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



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604761-04  
MW-267S-20060404-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 15:36 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	115	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	104	%		70-130			
Dibromofluoromethane	113	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0604761

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 03-04 (WG235382-3, WG235382-4)					
Methylene chloride	99	106	7	25	70-130
1,1-Dichloroethane	99	94	5	25	70-130
Chloroform	102	110	8	25	70-130
Carbon tetrachloride	113	126	11	25	70-130
1,2-Dichloropropane	100	104	4	25	70-130
Dibromochloromethane	95	98	3	25	70-130
1,1,2-Trichloroethane	96	100	4	25	70-130
Tetrachloroethene	97	110	13	25	70-130
Chlorobenzene	98	103	5	25	70-130
1,2-Dichloroethane	102	105	3	25	70-130
1,1,1-Trichloroethane	106	114	7	25	70-130
Bromodichloromethane	105	111	6	25	70-130
trans-1,3-Dichloropropene	98	100	2	25	70-130
cis-1,3-Dichloropropene	89	89	0	25	70-130
Bromoform	98	101	3	50	70-130
1,1,2,2-Tetrachloroethane	93	91	2	25	70-130
Chloromethane	93	94	1	50	70-130
Vinyl chloride	107	115	7	25	70-130
Chloroethane	95	98	3	25	70-130
1,1-Dichloroethene	105	106	1	25	70-130
trans-1,2-Dichloroethene	101	103	2	25	70-130
Trichloroethene	100	103	3	25	70-130
1,2-Dichlorobenzene	95	97	2	25	70-130
1,3-Dichlorobenzene	98	101	3	25	70-130
1,4-Dichlorobenzene	92	96	4	25	70-130
cis-1,2-Dichloroethene	104	107	3	25	70-130
Dichlorodifluoromethane	103	113	9	50	70-130
1,2-Dibromoethane	93	97	4	25	70-130
1,3-Dichloropropane	98	103	5	25	70-130
1,1,1,2-Tetrachloroethane	102	113	10	25	70-130
o-Chlorotoluene	100	104	4	25	70-130
p-Chlorotoluene	99	101	2	25	70-130
Hexachlorobutadiene	81	88	8	25	70-130
1,2,4-Trichlorobenzene	80	72	11	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	102	108	6		70-130
Toluene-d8	96	97	1		70-130
4-Bromofluorobenzene	100	97	3		70-130
Dibromofluoromethane	107	105	2		70-130
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG235382-6, WG235382-7)					
Methylene chloride	99	100	1	25	70-130
1,1-Dichloroethane	101	99	2	25	70-130
Chloroform	101	103	2	25	70-130
Carbon tetrachloride	114	115	1	25	70-130
1,2-Dichloropropane	98	98	0	25	70-130
Dibromochloromethane	96	93	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604761

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG235382-6, WG235382-7)					
1,1,2-Trichloroethane	98	98	0	25	70-130
Tetrachloroethene	102	101	1	25	70-130
Chlorobenzene	98	98	0	25	70-130
1,2-Dichloroethane	102	106	4	25	70-130
1,1,1-Trichloroethane	108	110	2	25	70-130
Bromodichloromethane	102	104	2	25	70-130
trans-1,3-Dichloropropene	100	99	1	25	70-130
cis-1,3-Dichloropropene	88	82	7	25	70-130
Bromoform	100	101	1	50	70-130
1,1,2,2-Tetrachloroethane	90	86	5	25	70-130
Chloromethane	91	90	1	50	70-130
Vinyl chloride	105	105	0	25	70-130
Chloroethane	92	90	2	25	70-130
1,1-Dichloroethene	104	93	11	25	70-130
trans-1,2-Dichloroethene	100	96	4	25	70-130
Trichloroethene	97	92	5	25	70-130
1,2-Dichlorobenzene	92	89	3	25	70-130
1,3-Dichlorobenzene	98	92	6	25	70-130
1,4-Dichlorobenzene	91	87	4	25	70-130
cis-1,2-Dichloroethene	102	98	4	25	70-130
Dichlorodifluoromethane	100	104	4	50	70-130
1,2-Dibromoethane	96	88	9	25	70-130
1,3-Dichloropropane	98	96	2	25	70-130
1,1,1,2-Tetrachloroethane	104	104	0	25	70-130
o-Chlorotoluene	97	93	4	25	70-130
p-Chlorotoluene	94	89	5	25	70-130
Hexachlorobutadiene	86	82	5	25	70-130
1,2,4-Trichlorobenzene	73	65	12	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	106	108	2		70-130
Toluene-d8	98	97	1		70-130
4-Bromofluorobenzene	98	94	4		70-130
Dibromofluoromethane	105	111	6		70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0604761

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by MCP 8260B for sample(s) 01-04 (L0604775-04, WG235382-2)					
Methylene chloride	99	93	6	30	70-130
1,1-Dichloroethane	104	94	10	30	70-130
Chloroform	107	97	10	30	70-130
Carbon tetrachloride	119	107	11	30	70-130
1,2-Dichloropropane	105	97	8	30	70-130
Dibromochloromethane	95	92	3	30	70-130
1,1,2-Trichloroethane	100	94	6	30	70-130
Tetrachloroethene	103	96	7	30	70-130
Chlorobenzene	98	94	4	30	70-130
1,2-Dichloroethane	110	100	10	30	70-130
1,1,1-Trichloroethane	112	102	9	30	70-130
Bromodichloromethane	106	100	6	30	70-130
trans-1,3-Dichloropropene	101	97	4	30	70-130
cis-1,3-Dichloropropene	86	81	6	30	70-130
Bromoform	102	96	6	30	70-130
1,1,2,2-Tetrachloroethane	93	93	0	30	70-130
Chloromethane	86	80	7	30	70-130
Vinyl chloride	103	92	11	30	70-130
Chloroethane	92	86	7	30	70-130
1,1-Dichloroethene	96	93	3	30	70-130
trans-1,2-Dichloroethene	97	93	4	30	70-130
Trichloroethene	102	81	23	30	70-130
1,2-Dichlorobenzene	90	89	1	30	70-130
1,3-Dichlorobenzene	93	90	3	30	70-130
1,4-Dichlorobenzene	86	85	1	30	70-130
cis-1,2-Dichloroethene	126	90	33	30	70-130
Dichlorodifluoromethane	97	81	18	30	70-130
1,2-Dibromoethane	97	92	5	30	70-130
1,3-Dichloropropane	102	96	6	30	70-130
1,1,1,2-Tetrachloroethane	108	98	10	30	70-130
o-Chlorotoluene	95	93	2	30	70-130
p-Chlorotoluene	92	90	2	30	70-130
Hexachlorobutadiene	81	76	6	30	70-130
1,2,4-Trichlorobenzene	65	70	7	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	117	110	6		70-130
Toluene-d8	101	99	2		70-130
4-Bromofluorobenzene	98	98	0		70-130
Dibromofluoromethane	113	105	7		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0604761

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03-04 (WG235382-5)							
Volatile Organics by MCP 8260B				60 8260B	0409 11:22 PD		
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	104	%	70-130				
Blank Analysis for sample(s) 01-02 (WG235382-8)							
Volatile Organics by MCP 8260B				60 8260B	0410 10:41 PD		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604761

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG235382-8)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0410 10:41	PD
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				
cis-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	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				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	109	%		70-130			
Toluene-d8	96.0	%		70-130			
4-Bromofluorobenzene	102	%		70-130			
Dibromofluoromethane	109	%		70-130			

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604761

---

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
L0604761-01A	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-01B	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-02A	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-02B	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-03A	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-03B	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-04A	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604761-04B	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID	Comments
L0604761-03A	This container has not been properly returned to CUSTODY! It was last assigned to KJOZW for department CUSTODY on 04/05/06 22:45 .





# 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  
 Address: 311 Bolton St  
Boston, Me.  
 Phone: 617-267-7800  
 Fax: 617-267-6447  
 Email: premj@ermm.com

### Project Information

Project Name: Rogheven  
 Project Location: Walden Me.  
 Project #: 42925  
 Project Manager: Jeremy Picard  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 4/12 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 4/6ALPHA Job #: 10604761

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State/Fed Program Criteria

### 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?

### SAMPLE HANDLING

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials
--------------------------------	-----------	-----------------	------	---------------	--------------------

<u>04761-01</u>	<u>MW-553-20060404-01</u>	<u>4/4/06</u>	<u>0540</u>	<u>GW</u>	<u>CC</u>	<u>2</u>
<u>1-02</u>	<u>MW-553A-20060404-01</u>	<u>4/4/06</u>	<u>0955</u>	<u>GW</u>	<u>CC</u>	<u>2</u>
<u>1-03</u>	<u>MW-551-20060404-01</u>	<u>4/4/06</u>	<u>1125</u>	<u>GW</u>	<u>CC</u>	<u>2</u>
<u>1-04</u>	<u>MW-2675-20060404-01</u>	<u>4/4/06</u>	<u>1320</u>	<u>GW</u>	<u>CC</u>	<u>2</u>

### Sample Specific Comments

TOTAL # BOTTLES

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

### IS YOUR PROJECT MCP ?

Container Type  Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

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.

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: L0604696  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 05-APR-2006  
Attn: Jeremy Picard Date Reported: 10-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON GW SAMPLING

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? N/A

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? YES
- 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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604696

Date Reported: 10-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604696-01	MW-267M-20060404-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604696

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MCP Related Narratives

Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

L0604696-01 has elevated limits of detection due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

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: L0604696-01 Date Collected: 04-APR-2006 14:17  
MW-267M-20060404-01 Date Received : 05-APR-2006  
Sample Matrix: WATER Date Reported : 10-APR-2006  
Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0409 10:37 PD		
Methylene chloride	ND	ug/l	25.				
1,1-Dichloroethane	ND	ug/l	3.8				
Chloroform	ND	ug/l	3.8				
Carbon tetrachloride	ND	ug/l	2.5				
1,2-Dichloropropane	ND	ug/l	8.8				
Dibromochloromethane	ND	ug/l	2.5				
1,1,2-Trichloroethane	ND	ug/l	3.8				
Tetrachloroethene	24	ug/l	2.5				
Chlorobenzene	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	2.5				
1,1,1-Trichloroethane	ND	ug/l	2.5				
Bromodichloromethane	ND	ug/l	2.5				
trans-1,3-Dichloropropene	ND	ug/l	2.5				
cis-1,3-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	10.				
1,1,2,2-Tetrachloroethane	ND	ug/l	2.5				
Chloromethane	ND	ug/l	12.				
Vinyl chloride	ND	ug/l	5.0				
Chloroethane	ND	ug/l	5.0				
1,1-Dichloroethene	ND	ug/l	2.5				
trans-1,2-Dichloroethene	ND	ug/l	3.8				
Trichloroethene	510	ug/l	2.5				
1,2-Dichlorobenzene	ND	ug/l	12.				
1,3-Dichlorobenzene	ND	ug/l	12.				
1,4-Dichlorobenzene	ND	ug/l	12.				
cis-1,2-Dichloroethene	260	ug/l	2.5				
Dichlorodifluoromethane	ND	ug/l	25.				
1,2-Dibromoethane	ND	ug/l	10.				
1,3-Dichloropropane	ND	ug/l	12.				
1,1,1,2-Tetrachloroethane	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	12.				
p-Chlorotoluene	ND	ug/l	12.				
Hexachlorobutadiene	ND	ug/l	3.0				
1,2,4-Trichlorobenzene	ND	ug/l	12.				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604696-01  
MW-267M-20060404-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 10:37 PD		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	101	%		70-130			
Dibromofluoromethane	115	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0604696

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01 (WG235422-1, WG235422-2)					
Methylene chloride	95	92	3	25	70-130
1,1-Dichloroethane	100	95	5	25	70-130
Chloroform	95	90	5	25	70-130
Carbon tetrachloride	101	96	5	25	70-130
1,2-Dichloropropane	101	97	4	25	70-130
Dibromochloromethane	94	94	0	25	70-130
1,1,2-Trichloroethane	100	102	2	25	70-130
Tetrachloroethene	105	101	4	25	70-130
Chlorobenzene	102	99	3	25	70-130
Trichlorofluoromethane	102	94	8	25	70-130
1,2-Dichloroethane	101	99	2	25	70-130
1,1,1-Trichloroethane	101	96	5	25	70-130
Bromodichloromethane	100	97	3	25	70-130
trans-1,3-Dichloropropene	92	92	0	25	70-130
cis-1,3-Dichloropropene	90	90	0	25	70-130
1,1-Dichloropropene	99	92	7	25	70-130
Bromoform	92	98	6	50	70-130
1,1,2,2-Tetrachloroethane	99	102	3	25	70-130
Benzene	100	96	4	25	70-130
Toluene	100	96	4	25	70-130
Ethylbenzene	102	98	4	25	70-130
Chloromethane	91	87	4	50	70-130
Bromomethane	93	91	2	50	70-130
Vinyl chloride	102	94	8	25	70-130
Chloroethane	95	90	5	25	70-130
1,1-Dichloroethene	94	89	5	25	70-130
trans-1,2-Dichloroethene	94	90	4	25	70-130
Trichloroethene	98	93	5	25	70-130
1,2-Dichlorobenzene	96	96	0	25	70-130
1,3-Dichlorobenzene	104	102	2	25	70-130
1,4-Dichlorobenzene	100	99	1	25	70-130
Methyl tert butyl ether	80	85	6	25	70-130
p/m-Xylene	104	101	3	25	70-130
o-Xylene	95	91	4	25	70-130
cis-1,2-Dichloroethene	104	98	6	25	70-130
Dibromomethane	101	102	1	25	70-130
1,2,3-Trichloropropane	99	105	6	25	70-130
Styrene	95	92	3	25	70-130
Dichlorodifluoromethane	82	79	4	50	70-130
Acetone	91	94	3	50	70-130
Carbon disulfide	83	78	6	25	70-130
2-Butanone	90	94	4	50	70-130
4-Methyl-2-pentanone	84	89	6	50	70-130
2-Hexanone	81	88	8	50	70-130
Bromochloromethane	100	100	0	25	70-130
Tetrahydrofuran	82	81	1	25	70-130
2,2-Dichloropropane	96	93	3	50	70-130
1,2-Dibromoethane	91	94	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604696

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01 (WG235422-1, WG235422-2)					
1,3-Dichloropropane	94	98	4	25	70-130
1,1,1,2-Tetrachloroethane	104	102	2	25	70-130
Bromobenzene	102	101	1	25	70-130
n-Butylbenzene	94	91	3	25	70-130
sec-Butylbenzene	96	93	3	25	70-130
tert-Butylbenzene	97	95	2	25	70-130
o-Chlorotoluene	104	100	4	25	70-130
p-Chlorotoluene	102	98	4	25	70-130
1,2-Dibromo-3-chloropropane	92	98	6	50	70-130
Hexachlorobutadiene	96	91	5	25	70-130
Isopropylbenzene	104	101	3	25	70-130
p-Isopropyltoluene	98	96	2	25	70-130
Naphthalene	76	84	10	25	70-130
n-Propylbenzene	102	98	4	25	70-130
1,2,3-Trichlorobenzene	84	89	6	25	70-130
1,2,4-Trichlorobenzene	84	87	4	25	70-130
1,3,5-Trimethylbenzene	99	94	5	25	70-130
1,2,4-Trimethylbenzene	99	97	2	25	70-130
Ethyl ether	78	79	1	25	70-130
Isopropyl Ether	80	79	1	25	70-130
Ethyl-Tert-Butyl-Ether	76	77	1	25	70-130
Tertiary-Amyl Methyl Ether	75	77	3	25	70-130
1,4-Dioxane	79	83	5	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	99	104	5		70-130
Toluene-d8	98	100	2		70-130
4-Bromofluorobenzene	92	96	4		70-130
Dibromofluoromethane	106	109	3		70-130



**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH MS/MSD ANALYSIS**

Laboratory Job Number: L0604696

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by MCP 8260B for sample(s) 01 (L0604688-07, WG235422-5)					
Methylene chloride	96	101	5	30	70-130
1,1-Dichloroethane	95	101	6	30	70-130
Chloroform	84	90	7	30	70-130
Carbon tetrachloride	85	93	9	30	70-130
1,2-Dichloropropane	93	99	6	30	70-130
Dibromochloromethane	84	89	6	30	70-130
1,1,2-Trichloroethane	93	98	5	30	70-130
Tetrachloroethene	86	97	12	30	70-130
Chlorobenzene	87	94	8	30	70-130
1,2-Dichloroethane	99	102	3	30	70-130
1,1,1-Trichloroethane	89	96	8	30	70-130
Bromodichloromethane	90	94	4	30	70-130
trans-1,3-Dichloropropene	80	84	5	30	70-130
cis-1,3-Dichloropropene	78	84	7	30	70-130
Bromoform	82	88	7	30	70-130
1,1,2,2-Tetrachloroethane	94	98	4	30	70-130
Chloromethane	85	93	9	30	70-130
Vinyl chloride	92	102	10	30	70-130
Chloroethane	88	97	10	30	70-130
1,1-Dichloroethene	79	92	15	30	70-130
trans-1,2-Dichloroethene	86	94	9	30	70-130
Trichloroethene	79	88	11	30	70-130
1,2-Dichlorobenzene	81	90	11	30	70-130
1,3-Dichlorobenzene	84	94	11	30	70-130
1,4-Dichlorobenzene	81	90	11	30	70-130
cis-1,2-Dichloroethene	94	101	7	30	70-130
Dichlorodifluoromethane	68	76	11	30	70-130
1,2-Dibromoethane	88	91	3	30	70-130
1,3-Dichloropropane	92	96	4	30	70-130
1,1,1,2-Tetrachloroethane	91	96	5	30	70-130
o-Chlorotoluene	84	92	9	30	70-130
p-Chlorotoluene	80	89	11	30	70-130
Hexachlorobutadiene	73	84	14	30	70-130
1,2,4-Trichlorobenzene	71	79	11	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	103	106	3		70-130
Toluene-d8	95	101	6		70-130
4-Bromofluorobenzene	90	96	6		70-130
Dibromofluoromethane	106	111	5		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0604696

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG235422-3)							
Volatile Organics by MCP 8260B				60 8260B		0409 09:57 PD	
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604696

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG235422-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B	0409 09:57 PD		
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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	109	%	70-130				
Toluene-d8	102	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				
Dibromofluoromethane	116	%	70-130				

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604696

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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
L0604696-01A	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04
L0604696-01B	Vial HCl preserved	A	N/A	2.2C	Y	Absent	MCP-8260-04

---

**Container Comments**

Container ID	Comments
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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

Address: 399 Boylston St.  
Boston, MA 02116

Phone: 617-646-7800

Fax: 617-267-6447

Email: jeremy.picard@erm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Project Information

Project Name: Raytheon GW Sampling

Project Location: Wayland, MA

Project #: 42925

Project Manager: Jeremy Picard

ALPHA Quote #:

Turn-Around Time

Standard

RUSH (only confirmed if pre-approved)

Date Due: 4/1/05

Time:

Date Rec'd In Lab: 4/5

Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State / Fed Program Criteria

MCP  PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED  
MCP  GW-1

ALPHA Job #: 20604696

Billing Information

Same as Client info PO #:

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

SAMPLE HANDLING

- Filtration
  - Done
  - Not needed
  - Lab to do
  - Preservation
  - Lab to do
- (please specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
0769601	MW-247M-22060404-01	4/4/06	17	GW	KRM

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP?

Relinquished By

*[Signature]*

Container Type Preservative

V

Date/Time

4/5/05 12:05

Received By

*[Signature]*

Date/Time

4/5/05 12:05

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.

2

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: L0604617  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 04-APR-2006  
Attn: Jeremy Picard Date Reported: 10-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON GW SAMPLING

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? N/A

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? YES
- 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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604617  
Date Reported: 10-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604617-01	MW-261S-20060303-01	WAYLAND, MA



ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604617

---

Volatile Organics

L0604617-01 has elevated limits of detection due to the 100x dilutions required by the elevated concentrations of target compounds in the sample.

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

**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

<b>Laboratory Sample Number:</b> L0604617-01	<b>Date Collected:</b> 03-APR-2006 14:30
MW-261S-20060303-01	<b>Date Received :</b> 04-APR-2006
<b>Sample Matrix:</b> WATER	<b>Date Reported :</b> 10-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0408 00:18 RY	
Methylene chloride	ND	ug/l	500			
1,1-Dichloroethane	ND	ug/l	75.			
Chloroform	ND	ug/l	75.			
Carbon tetrachloride	ND	ug/l	50.			
1,2-Dichloropropane	ND	ug/l	180			
Dibromochloromethane	ND	ug/l	50.			
1,1,2-Trichloroethane	ND	ug/l	75.			
Tetrachloroethene	56	ug/l	50.			
Chlorobenzene	ND	ug/l	50.			
1,2-Dichloroethane	ND	ug/l	50.			
1,1,1-Trichloroethane	ND	ug/l	50.			
Bromodichloromethane	ND	ug/l	50.			
trans-1,3-Dichloropropene	ND	ug/l	50.			
cis-1,3-Dichloropropene	ND	ug/l	50.			
Bromoform	ND	ug/l	200			
1,1,2,2-Tetrachloroethane	ND	ug/l	50.			
Chloromethane	ND	ug/l	250			
Vinyl chloride	ND	ug/l	100			
Chloroethane	ND	ug/l	100			
1,1-Dichloroethene	ND	ug/l	50.			
trans-1,2-Dichloroethene	ND	ug/l	75.			
Trichloroethene	3600	ug/l	50.			
1,2-Dichlorobenzene	ND	ug/l	250			
1,3-Dichlorobenzene	ND	ug/l	250			
1,4-Dichlorobenzene	ND	ug/l	250			
cis-1,2-Dichloroethene	80	ug/l	50.			
Dichlorodifluoromethane	ND	ug/l	500			
1,2-Dibromoethane	ND	ug/l	200			
1,3-Dichloropropane	ND	ug/l	250			
1,1,1,2-Tetrachloroethane	ND	ug/l	50.			
o-Chlorotoluene	ND	ug/l	250			
p-Chlorotoluene	ND	ug/l	250			
Hexachlorobutadiene	ND	ug/l	60.			
1,2,4-Trichlorobenzene	ND	ug/l	250			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604617-01  
MW-261S-20060303-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0408 00:18 RY		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	108	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	100	%		70-130			
Dibromofluoromethane	111	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0604617

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01 (WG235379-1, WG235379-2)					
Methylene chloride	97	96	1	25	70-130
1,1-Dichloroethane	100	95	5	25	70-130
Chloroform	96	92	4	25	70-130
Carbon tetrachloride	102	97	5	25	70-130
1,2-Dichloropropane	100	97	3	25	70-130
Dibromochloromethane	89	89	0	25	70-130
1,1,2-Trichloroethane	90	93	3	25	70-130
Tetrachloroethene	98	94	4	25	70-130
Chlorobenzene	96	93	3	25	70-130
Trichlorofluoromethane	101	95	6	25	70-130
1,2-Dichloroethane	95	94	1	25	70-130
1,1,1-Trichloroethane	99	96	3	25	70-130
Bromodichloromethane	98	95	3	25	70-130
trans-1,3-Dichloropropene	95	94	1	25	70-130
cis-1,3-Dichloropropene	87	86	1	25	70-130
1,1-Dichloropropene	102	96	6	25	70-130
Bromoform	93	92	1	50	70-130
1,1,2,2-Tetrachloroethane	94	95	1	25	70-130
Benzene	100	95	5	25	70-130
Toluene	101	95	6	25	70-130
Ethylbenzene	100	97	3	25	70-130
Chloromethane	88	83	6	50	70-130
Bromomethane	94	93	1	50	70-130
Vinyl chloride	97	94	3	25	70-130
Chloroethane	88	81	8	25	70-130
1,1-Dichloroethene	102	97	5	25	70-130
trans-1,2-Dichloroethene	101	95	6	25	70-130
Trichloroethene	100	95	5	25	70-130
1,2-Dichlorobenzene	94	93	1	25	70-130
1,3-Dichlorobenzene	100	94	6	25	70-130
1,4-Dichlorobenzene	91	86	6	25	70-130
Methyl tert butyl ether	90	93	3	25	70-130
p/m-Xylene	100	96	4	25	70-130
o-Xylene	95	91	4	25	70-130
cis-1,2-Dichloroethene	104	99	5	25	70-130
Dibromomethane	91	91	0	25	70-130
1,2,3-Trichloropropane	99	104	5	25	70-130
Styrene	92	88	4	25	70-130
Dichlorodifluoromethane	92	84	9	50	70-130
Acetone	82	82	0	50	70-130
Carbon disulfide	81	76	6	25	70-130
2-Butanone	89	100	12	50	70-130
4-Methyl-2-pentanone	86	95	10	50	70-130
2-Hexanone	99	106	7	50	70-130
Bromochloromethane	94	95	1	25	70-130
Tetrahydrofuran	101	92	9	25	70-130
2,2-Dichloropropane	95	81	16	50	70-130
1,2-Dibromoethane	93	94	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604617

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01 (WG235379-1, WG235379-2)					
1,3-Dichloropropane	96	95	1	25	70-130
1,1,1,2-Tetrachloroethane	97	96	1	25	70-130
Bromobenzene	98	94	4	25	70-130
n-Butylbenzene	100	90	11	25	70-130
sec-Butylbenzene	96	91	5	25	70-130
tert-Butylbenzene	107	100	7	25	70-130
o-Chlorotoluene	102	97	5	25	70-130
p-Chlorotoluene	98	94	4	25	70-130
1,2-Dibromo-3-chloropropane	79	82	4	50	70-130
Hexachlorobutadiene	92	85	8	25	70-130
Isopropylbenzene	105	102	3	25	70-130
p-Isopropyltoluene	97	89	9	25	70-130
Naphthalene	79	82	4	25	70-130
n-Propylbenzene	110	101	9	25	70-130
1,2,3-Trichlorobenzene	77	80	4	25	70-130
1,2,4-Trichlorobenzene	84	81	4	25	70-130
1,3,5-Trimethylbenzene	108	102	6	25	70-130
1,2,4-Trimethylbenzene	103	96	7	25	70-130
Ethyl ether	86	88	2	25	70-130
Isopropyl Ether	86	86	0	25	70-130
Ethyl-Tert-Butyl-Ether	86	87	1	25	70-130
Tertiary-Amyl Methyl Ether	84	85	1	25	70-130
1,4-Dioxane	86	90	5	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	93	93	0		70-130
Toluene-d8	99	100	1		70-130
4-Bromofluorobenzene	104	101	3		70-130
Dibromofluoromethane	99	95	4		70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604617

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG235379-3)							
Volatile Organics by MCP 8260B				60 8260B		0407 17:41 RY	
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604617

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG235379-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0407 17:41	RY
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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	96.0	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	104	%		70-130			
Dibromofluoromethane	99.0	%		70-130			

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

---

**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604617

---

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
L0604617-01A	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604617-01B	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID    Comments

---



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: L0604613  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 04-APR-2006  
Attn: Jeremy Picard Date Reported: 10-APR-2006  
Project Number: 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? N/A

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? YES
- 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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0604613

Date Reported: 10-APR-2006

---

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0604613-01	MW-268M-20060403-01	WAYLAND, MA
L0604613-02	DUP-003-20060403-01	WAYLAND, MA
L0604613-03	MW-268D-20060403-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0604613

---

Volatile Organics

The following samples have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples:

L0604613-01, -02 (100X)

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604613-01  
MW-268M-20060403-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0407 21:18		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	103	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	105	%		70-130			
Dibromofluoromethane	105	%		70-130			

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





**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0604613-02  
DUP-003-20060403-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0407 21:55 RY		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	101	%		70-130			
Dibromofluoromethane	105	%		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

<b>Laboratory Sample Number:</b> L0604613-03		<b>Date Collected:</b> 03-APR-2006 15:25
	MW-268D-20060403-01	<b>Date Received :</b> 04-APR-2006
<b>Sample Matrix:</b> WATER		<b>Date Reported :</b> 10-APR-2006
<b>Condition of Sample:</b> Satisfactory		<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0407 22:31	RY
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			
cis-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	21	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			
cis-1,2-Dichloroethene	22	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
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	0.60			
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: L0604613-03  
MW-268D-20060403-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B cont'd				60 8260B	0407 22:31		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	105	%		70-130			
Toluene-d8	100	%		70-130			
4-Bromofluorobenzene	105	%		70-130			
Dibromofluoromethane	108	%		70-130			

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604613

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-03 (WG235379-1, WG235379-2)					
Methylene chloride	97	96	1	25	70-130
1,1-Dichloroethane	100	95	5	25	70-130
Chloroform	96	92	4	25	70-130
Carbon tetrachloride	102	97	5	25	70-130
1,2-Dichloropropane	100	97	3	25	70-130
Dibromochloromethane	89	89	0	25	70-130
1,1,2-Trichloroethane	90	93	3	25	70-130
Tetrachloroethene	98	94	4	25	70-130
Chlorobenzene	96	93	3	25	70-130
Trichlorofluoromethane	101	95	6	25	70-130
1,2-Dichloroethane	95	94	1	25	70-130
1,1,1-Trichloroethane	99	96	3	25	70-130
Bromodichloromethane	98	95	3	25	70-130
trans-1,3-Dichloropropene	95	94	1	25	70-130
cis-1,3-Dichloropropene	87	86	1	25	70-130
1,1-Dichloropropene	102	96	6	25	70-130
Bromoform	93	92	1	50	70-130
1,1,2,2-Tetrachloroethane	94	95	1	25	70-130
Benzene	100	95	5	25	70-130
Toluene	101	95	6	25	70-130
Ethylbenzene	100	97	3	25	70-130
Chloromethane	88	83	6	50	70-130
Bromomethane	94	93	1	50	70-130
Vinyl chloride	97	94	3	25	70-130
Chloroethane	88	81	8	25	70-130
1,1-Dichloroethene	102	97	5	25	70-130
trans-1,2-Dichloroethene	101	95	6	25	70-130
Trichloroethene	100	95	5	25	70-130
1,2-Dichlorobenzene	94	93	1	25	70-130
1,3-Dichlorobenzene	100	94	6	25	70-130
1,4-Dichlorobenzene	91	86	6	25	70-130
Methyl tert butyl ether	90	93	3	25	70-130
p/m-Xylene	100	96	4	25	70-130
o-Xylene	95	91	4	25	70-130
cis-1,2-Dichloroethene	104	99	5	25	70-130
Dibromomethane	91	91	0	25	70-130
1,2,3-Trichloropropane	99	104	5	25	70-130
Styrene	92	88	4	25	70-130
Dichlorodifluoromethane	92	84	9	50	70-130
Acetone	82	82	0	50	70-130
Carbon disulfide	81	76	6	25	70-130
2-Butanone	89	100	12	50	70-130
4-Methyl-2-pentanone	86	95	10	50	70-130
2-Hexanone	99	106	7	50	70-130
Bromochloromethane	94	95	1	25	70-130
Tetrahydrofuran	101	92	9	25	70-130
2,2-Dichloropropane	95	81	16	50	70-130
1,2-Dibromoethane	93	94	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0604613

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-03 (WG235379-1, WG235379-2)					
1,3-Dichloropropane	96	95	1	25	70-130
1,1,1,2-Tetrachloroethane	97	96	1	25	70-130
Bromobenzene	98	94	4	25	70-130
n-Butylbenzene	100	90	11	25	70-130
sec-Butylbenzene	96	91	5	25	70-130
tert-Butylbenzene	107	100	7	25	70-130
o-Chlorotoluene	102	97	5	25	70-130
p-Chlorotoluene	98	94	4	25	70-130
1,2-Dibromo-3-chloropropane	79	82	4	50	70-130
Hexachlorobutadiene	92	85	8	25	70-130
Isopropylbenzene	105	102	3	25	70-130
p-Isopropyltoluene	97	89	9	25	70-130
Naphthalene	79	82	4	25	70-130
n-Propylbenzene	110	101	9	25	70-130
1,2,3-Trichlorobenzene	77	80	4	25	70-130
1,2,4-Trichlorobenzene	84	81	4	25	70-130
1,3,5-Trimethylbenzene	108	102	6	25	70-130
1,2,4-Trimethylbenzene	103	96	7	25	70-130
Ethyl ether	86	88	2	25	70-130
Isopropyl Ether	86	86	0	25	70-130
Ethyl-Tert-Butyl-Ether	86	87	1	25	70-130
Tertiary-Amyl Methyl Ether	84	85	1	25	70-130
1,4-Dioxane	86	90	5	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	93	93	0		70-130
Toluene-d8	99	100	1		70-130
4-Bromofluorobenzene	104	101	3		70-130
Dibromofluoromethane	99	95	4		70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604613

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG235379-3)							
Volatile Organics by MCP 8260B				60 8260B	0407 17:41 RY		
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	1.0				
o-Xylene	ND	ug/l	1.0				
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	1.0				
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.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0604613

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG235379-3)							
Volatile Organics by MCP 8260B cont'd				60 8260B		0407 17:41	RY
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
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	0.60				
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	96.0	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	104	%		70-130			
Dibromofluoromethane	99.0	%		70-130			

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0604613

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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
L0604613-01A	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604613-01B	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604613-02A	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604613-02B	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604613-03A	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04
L0604613-03B	Vial HCl preserved	A	N/A	3.2C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID Comments

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ALPHA ANALYTICAL LABORATORIES

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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: L0605526  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 19-APR-2006  
Attn: Jeremy Picard Date Reported: 21-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON WAYLAND

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? YES

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0605526  
Date Reported: 21-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0605526-01	B-531E-15-20-01	WAYLAND, MA
L0605526-02	B-530C-10-15-01	WAYLAND, MA
L0605526-03	B-531F-15-20-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0605526

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MCP Related Narratives

Volatile Organics

In reference to question E:

The LCS/LCSD % recoveries for Acetone are above the acceptance criteria for the method.

The LCS/LCSD % recoveries for Dichlorodifluoromethane are below the acceptance criteria for the method.

These are both difficult analytes.



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605526-01  
 B-531E-15-20-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0421 12:07 RY	
1,2,3-Trichloropropane	ND	ug/kg	890				
Styrene	ND	ug/kg	180				
Dichlorodifluoromethane	ND	ug/kg	890				
Acetone	ND	ug/kg	890				
Carbon disulfide	ND	ug/kg	890				
2-Butanone	ND	ug/kg	890				
4-Methyl-2-pentanone	ND	ug/kg	890				
2-Hexanone	ND	ug/kg	890				
Bromochloromethane	ND	ug/kg	440				
Tetrahydrofuran	ND	ug/kg	1800				
2,2-Dichloropropane	ND	ug/kg	440				
1,2-Dibromoethane	ND	ug/kg	360				
1,3-Dichloropropane	ND	ug/kg	440				
1,1,1,2-Tetrachloroethane	ND	ug/kg	89.				
Bromobenzene	ND	ug/kg	440				
n-Butylbenzene	ND	ug/kg	89.				
sec-Butylbenzene	ND	ug/kg	89.				
tert-Butylbenzene	ND	ug/kg	440				
o-Chlorotoluene	ND	ug/kg	440				
p-Chlorotoluene	ND	ug/kg	440				
1,2-Dibromo-3-chloropropane	ND	ug/kg	440				
Hexachlorobutadiene	ND	ug/kg	440				
Isopropylbenzene	ND	ug/kg	89.				
p-Isopropyltoluene	ND	ug/kg	89.				
Naphthalene	ND	ug/kg	440				
n-Propylbenzene	ND	ug/kg	89.				
1,2,3-Trichlorobenzene	ND	ug/kg	440				
1,2,4-Trichlorobenzene	ND	ug/kg	440				
1,3,5-Trimethylbenzene	ND	ug/kg	440				
1,2,4-Trimethylbenzene	ND	ug/kg	440				
Ethyl ether	ND	ug/kg	440				
Isopropyl Ether	ND	ug/kg	360				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	360				
Tertiary-Amyl Methyl Ether	ND	ug/kg	360				
1,4-Dioxane	ND	ug/kg	44000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	101	%	70-130				
Toluene-d8	103	%	70-130				
4-Bromofluorobenzene	105	%	70-130				
Dibromofluoromethane	94.0	%	70-130				

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





**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605526-02  
 B-530C-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0421 12:42 RY	
1,2,3-Trichloropropane	ND	ug/kg	750				
Styrene	ND	ug/kg	150				
Dichlorodifluoromethane	ND	ug/kg	750				
Acetone	ND	ug/kg	750				
Carbon disulfide	ND	ug/kg	750				
2-Butanone	ND	ug/kg	750				
4-Methyl-2-pentanone	ND	ug/kg	750				
2-Hexanone	ND	ug/kg	750				
Bromochloromethane	ND	ug/kg	380				
Tetrahydrofuran	ND	ug/kg	1500				
2,2-Dichloropropane	ND	ug/kg	380				
1,2-Dibromoethane	ND	ug/kg	300				
1,3-Dichloropropane	ND	ug/kg	380				
1,1,1,2-Tetrachloroethane	ND	ug/kg	75.				
Bromobenzene	ND	ug/kg	380				
n-Butylbenzene	ND	ug/kg	75.				
sec-Butylbenzene	ND	ug/kg	75.				
tert-Butylbenzene	ND	ug/kg	380				
o-Chlorotoluene	ND	ug/kg	380				
p-Chlorotoluene	ND	ug/kg	380				
1,2-Dibromo-3-chloropropane	ND	ug/kg	380				
Hexachlorobutadiene	ND	ug/kg	380				
Isopropylbenzene	ND	ug/kg	75.				
p-Isopropyltoluene	ND	ug/kg	75.				
Naphthalene	ND	ug/kg	380				
n-Propylbenzene	ND	ug/kg	75.				
1,2,3-Trichlorobenzene	ND	ug/kg	380				
1,2,4-Trichlorobenzene	ND	ug/kg	380				
1,3,5-Trimethylbenzene	ND	ug/kg	380				
1,2,4-Trimethylbenzene	ND	ug/kg	380				
Ethyl ether	ND	ug/kg	380				
Isopropyl Ether	ND	ug/kg	300				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	300				
Tertiary-Amyl Methyl Ether	ND	ug/kg	300				
1,4-Dioxane	ND	ug/kg	38000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100	%	70-130				
Toluene-d8	101	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	91.0	%	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:	L0605526-03	Date Collected:	14-APR-2006 13:05
	B-531F-15-20-01	Date Received :	19-APR-2006
Sample Matrix:	SOIL	Date Reported :	21-APR-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Solids, Total	75	%	0.10	30 2540G		0420 13:03 PD
Volatile Organics by MCP 8260B/5035-High				60 8260B		0421 13:18 RY
Methylene chloride	ND	ug/kg	1200			
1,1-Dichloroethane	ND	ug/kg	180			
Chloroform	ND	ug/kg	180			
Carbon tetrachloride	ND	ug/kg	120			
1,2-Dichloropropane	ND	ug/kg	430			
Dibromochloromethane	ND	ug/kg	120			
1,1,2-Trichloroethane	ND	ug/kg	180			
Tetrachloroethene	140	ug/kg	120			
Chlorobenzene	ND	ug/kg	120			
Trichlorofluoromethane	ND	ug/kg	620			
1,2-Dichloroethane	ND	ug/kg	120			
1,1,1-Trichloroethane	ND	ug/kg	120			
Bromodichloromethane	ND	ug/kg	120			
trans-1,3-Dichloropropene	ND	ug/kg	120			
cis-1,3-Dichloropropene	ND	ug/kg	120			
1,1-Dichloropropene	ND	ug/kg	620			
Bromoform	ND	ug/kg	490			
1,1,2,2-Tetrachloroethane	ND	ug/kg	120			
Benzene	ND	ug/kg	120			
Toluene	ND	ug/kg	180			
Ethylbenzene	ND	ug/kg	120			
Chloromethane	ND	ug/kg	620			
Bromomethane	ND	ug/kg	250			
Vinyl chloride	ND	ug/kg	250			
Chloroethane	ND	ug/kg	250			
1,1-Dichloroethene	ND	ug/kg	120			
trans-1,2-Dichloroethene	ND	ug/kg	180			
Trichloroethene	720	ug/kg	120			
1,2-Dichlorobenzene	ND	ug/kg	620			
1,3-Dichlorobenzene	ND	ug/kg	620			
1,4-Dichlorobenzene	ND	ug/kg	620			
Methyl tert butyl ether	ND	ug/kg	250			
p/m-Xylene	ND	ug/kg	250			
o-Xylene	ND	ug/kg	250			
cis-1,2-Dichloroethene	130	ug/kg	120			
Dibromomethane	ND	ug/kg	1200			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605526-03  
 B-531F-15-20-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0421 13:18 RY	
1,2,3-Trichloropropane	ND	ug/kg	1200				
Styrene	ND	ug/kg	250				
Dichlorodifluoromethane	ND	ug/kg	1200				
Acetone	ND	ug/kg	1200				
Carbon disulfide	ND	ug/kg	1200				
2-Butanone	ND	ug/kg	1200				
4-Methyl-2-pentanone	ND	ug/kg	1200				
2-Hexanone	ND	ug/kg	1200				
Bromochloromethane	ND	ug/kg	620				
Tetrahydrofuran	ND	ug/kg	2500				
2,2-Dichloropropane	ND	ug/kg	620				
1,2-Dibromoethane	ND	ug/kg	490				
1,3-Dichloropropane	ND	ug/kg	620				
1,1,1,2-Tetrachloroethane	ND	ug/kg	120				
Bromobenzene	ND	ug/kg	620				
n-Butylbenzene	ND	ug/kg	120				
sec-Butylbenzene	ND	ug/kg	120				
tert-Butylbenzene	ND	ug/kg	620				
o-Chlorotoluene	ND	ug/kg	620				
p-Chlorotoluene	ND	ug/kg	620				
1,2-Dibromo-3-chloropropane	ND	ug/kg	620				
Hexachlorobutadiene	ND	ug/kg	620				
Isopropylbenzene	ND	ug/kg	120				
p-Isopropyltoluene	ND	ug/kg	120				
Naphthalene	ND	ug/kg	620				
n-Propylbenzene	ND	ug/kg	120				
1,2,3-Trichlorobenzene	ND	ug/kg	620				
1,2,4-Trichlorobenzene	ND	ug/kg	620				
1,3,5-Trimethylbenzene	ND	ug/kg	620				
1,2,4-Trimethylbenzene	ND	ug/kg	620				
Ethyl ether	ND	ug/kg	620				
Isopropyl Ether	ND	ug/kg	490				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	490				
Tertiary-Amyl Methyl Ether	ND	ug/kg	490				
1,4-Dioxane	ND	ug/kg	62000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100	%	70-130				
Toluene-d8	104	%	70-130				
4-Bromofluorobenzene	106	%	70-130				
Dibromofluoromethane	90.0	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0605526

---

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-03 (L0605490-01, WG236709-1)					
Solids, Total	92	93	%	1	20

---

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0605526

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 01-03 (WG236900-1, WG236900-2)					
Methylene chloride	76	76	0	25	70-130
1,1-Dichloroethane	105	100	5	25	70-130
Chloroform	96	93	3	25	70-130
Carbon tetrachloride	89	85	5	25	70-130
1,2-Dichloropropane	108	105	3	25	70-130
Dibromochloromethane	94	93	1	25	70-130
1,1,2-Trichloroethane	113	109	4	25	70-130
Tetrachloroethene	103	96	7	25	70-130
Chlorobenzene	102	98	4	25	70-130
Trichlorofluoromethane	104	98	6	25	70-130
1,2-Dichloroethane	111	109	2	25	70-130
1,1,1-Trichloroethane	93	91	2	25	70-130
Bromodichloromethane	96	94	2	25	70-130
trans-1,3-Dichloropropene	80	79	1	25	70-130
cis-1,3-Dichloropropene	83	82	1	25	70-130
1,1-Dichloropropene	100	95	5	25	70-130
Bromoform	102	100	2	50	70-130
1,1,2,2-Tetrachloroethane	104	104	0	25	70-130
Benzene	101	97	4	25	70-130
Toluene	103	100	3	25	70-130
Ethylbenzene	108	102	6	25	70-130
Chloromethane	92	90	2	50	70-130
Bromomethane	103	99	4	50	70-130
Vinyl chloride	94	90	4	25	70-130
Chloroethane	90	88	2	25	70-130
1,1-Dichloroethene	93	90	3	25	70-130
trans-1,2-Dichloroethene	94	91	3	25	70-130
Trichloroethene	98	94	4	25	70-130
1,2-Dichlorobenzene	98	95	3	25	70-130
1,3-Dichlorobenzene	103	98	5	25	70-130
1,4-Dichlorobenzene	101	97	4	25	70-130
Methyl tert butyl ether	94	94	0	25	70-130
p/m-Xylene	112	105	6	25	70-130
o-Xylene	95	89	7	25	70-130
cis-1,2-Dichloroethene	100	96	4	25	70-130
Dibromomethane	102	101	1	25	70-130
1,2,3-Trichloropropane	115	113	2	25	70-130
Styrene	96	90	6	25	70-130
Dichlorodifluoromethane	59	56	5	50	70-130
Acetone	144	153	6	50	70-130
Carbon disulfide	99	94	5	25	70-130
2-Butanone	124	120	3	50	70-130
4-Methyl-2-pentanone	98	100	2	50	70-130
2-Hexanone	127	127	0	50	70-130
Bromochloromethane	96	95	1	25	70-130
Tetrahydrofuran	122	128	5	25	70-130
2,2-Dichloropropane	91	89	2	50	70-130
1,2-Dibromoethane	95	94	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605526

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 01-03 (WG236900-1, WG236900-2)					
1,3-Dichloropropane	102	102	0	25	70-130
1,1,1,2-Tetrachloroethane	102	100	2	25	70-130
Bromobenzene	100	97	3	25	70-130
n-Butylbenzene	113	104	8	25	70-130
sec-Butylbenzene	108	102	6	25	70-130
tert-Butylbenzene	99	96	3	25	70-130
o-Chlorotoluene	111	105	6	25	70-130
p-Chlorotoluene	107	101	6	25	70-130
1,2-Dibromo-3-chloropropane	102	105	3	50	70-130
Hexachlorobutadiene	91	88	3	25	70-130
Isopropylbenzene	108	100	8	25	70-130
p-Isopropyltoluene	98	92	6	25	70-130
Naphthalene	95	97	2	25	70-130
n-Propylbenzene	108	102	6	25	70-130
1,2,3-Trichlorobenzene	94	92	2	25	70-130
1,2,4-Trichlorobenzene	95	92	3	25	70-130
1,3,5-Trimethylbenzene	104	99	5	25	70-130
1,2,4-Trimethylbenzene	108	102	6	25	70-130
Ethyl ether	111	108	3	25	70-130
Isopropyl Ether	116	113	3	25	70-130
Ethyl-Tert-Butyl-Ether	92	90	2	25	70-130
Tertiary-Amyl Methyl Ether	86	85	1	25	70-130
1,4-Dioxane	99	102	3	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	107	106	1		70-130
Toluene-d8	104	103	1		70-130
4-Bromofluorobenzene	99	100	1		70-130
Dibromofluoromethane	98	99	1		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0605526

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG236900-3)							
Volatile Organics by MCP 8260B/5035-High				60 8260B	0421 10:21		RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0605526

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG236900-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0421 10:21	RY
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	101	%		70-130			
Toluene-d8	105	%		70-130			
4-Bromofluorobenzene	105	%		70-130			
Dibromofluoromethane	92.0	%		70-130			



**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0605526

---

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
L0605526-01A	Vial MeOH preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-01B	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-01C	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-01D	Plastic 2oz unpreserved for TS	A	NA	1.0 C	Y	Absent	TS
L0605526-02A	Vial MeOH preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-02B	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-02C	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-02D	Plastic 2oz unpreserved for TS	A	NA	1.0 C	Y	Absent	TS
L0605526-03A	Vial MeOH preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-03B	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-03C	Vial water preserved	A	NA	1.0 C	Y	Absent	MCP-8260H-04
L0605526-03D	Plastic 2oz unpreserved for TS	A	NA	1.0 C	Y	Absent	TS

**Container Comments**

Container ID    Comments

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# CHAIN OF CUSTODY

Page 1 of 2

WESTBORO, MA  
TEL: 508-898-9280  
FAX: 508-898-9183

RAYNHAM, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

### Client Information

Client: ERM

Address: 399 Boston St  
Boston, MA 02116

Phone: 617 646 7802

Fax: 617 267 6447

Email: jeremy.picard@erm.com

These samples have been previously analyzed by Alpha  
Other Project Specific Requirements/Comments/Detection Limits:  
O=water preserved

### Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 042925

Project Manager: Jeremy Picard

ALPHA Quote #:  
Turn-Around Time

Standard  RUSH (only confirmed if pre-authorized)  
Date Due: 4/19/06 Time: 72 hr

Date Rec'd in Lab: 4/14/06

ALPHA Job #: LO05331

### Report Information - Data Deliverables

FAX  EMAIL  
 XDEX  Add'l Deliverables

### Billing Information

Same as Client info PO #

### Regulatory Requirements/Report Limits

State/Fed Program: Mr / MCP Criteria: S-1

### MAMP/PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sample's Initials
		Date	Time		

<u>LO05331-01</u>	<u>B-531D-10-25-01</u>	<u>4/14/06</u>	<u>8:55</u>	<u>S</u>	<u>CR</u>
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	<u>B-531E-10-15-01</u>		<u>8:50</u>		
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	<u>B-531C-15-20-01</u>		<u>7:45</u>		
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	<u>B-531C-10-15-01</u>		<u>7:35</u>		
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	<u>B-531D-15-20-01</u>		<u>8:30</u>		
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	<u>B-531E-15-20-01</u>		<u>9:06</u>		
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	<u>B-525C-15-20-01</u>		<u>9:45</u>		
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	<u>B-525C-10-15-01</u>		<u>10:00</u>		
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	<u>TR-001-20060414-01</u>	<u>4/12/06</u>	<u>17:34</u>	<u>TR</u>	<u>SLR</u>
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	<u>B-525B-10-15-01</u>	<u>4/14/06</u>	<u>10:25</u>	<u>S</u>	<u>CR</u>
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**ANALYSIS**  
8260 Low  
8260 High  
Total Solids

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

### PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MAMP or CT RCP?

Requested By: [Signature]

Date/Time: 4/14/06 13:15

Received By: [Signature]

Date/Time: 4/14/06 13:16

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.



WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

RAYNHAM, MA  
TEL: 508-822-3300  
FAX: 508-822-3288

# CHAIN OF CUSTODY

PAGE 2 OF 2

### Client Information

Client: ERM

Address: 399 Boylston St  
Boston MA 02116

Phone: 617 646 7800

Fax: 617 267 6417

Email: jeremy.picard@erm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

0 = water preserved

### Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 42925

Project Manager: Jeremy Picard

Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: 4/19/00 Time: 72 hr

Date Rec'd In Lab: 4/14/00

Report Information - Data Deliverables

FAX  EMAIL

Xerox  Add'l Deliverables

ALPHA Job #: 10005331

Billing Information

Same as Client Info  PO #:

Regulatory Requirements/Report Limits

State / Fed / Program MA / MCLP

Criteria S-1

MAMCOP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?

Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
<u>10005331-11</u>	<u>B-525A3-15-20-01</u>	<u>4/14/00</u>	<u>1035</u>	<u>S</u>	<u>CR</u>
<u>12</u>	<u>B-525A-10-15-01</u>		<u>1116</u>		
<u>13</u>	<u>B-525A-15-20-01</u>		<u>1126</u>		
<u>14</u>	<u>B-530B-10-15-01</u>		<u>1205</u>		
<u>15</u>	<u>B-530B-15-20-01</u>		<u>1215</u>		
<u>16</u>	<u>B-530C-5-10-01</u>		<u>1230</u>		
<u>17</u>	<u>B-530C-10-15-01</u>		<u>1235</u>		
<u>18</u>	<u>B-531E-15-20-01</u>		<u>1305</u>		

ANALYSIS	8260 Low		8260 High		Total	Solids
	Yes	No	Yes	No		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		
	X	X	X	X		

Sample Specific Comments
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>
<u>Hold</u>

### PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MAMCP or CT RCP?

Reimbursed By:

Date/Time

Received By:

Date/Time

Container Type	Preservative
<u>V</u>	<u>P</u>
<u>V</u>	<u>P</u>
<u>E</u>	<u>A</u>

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.

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: L0605331  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 14-APR-2006  
Attn: Jeremy Picard Date Reported: 19-APR-2006  
Project Number: 42925 Delivery Method: Alpha  
Site: RAYTHEON WAYLAND

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? YES

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: Kathleen M. Davis  
Technical Representative

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0605331  
Date Reported: 19-APR-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0605331-01	B-531D-20-25-01	WAYLAND, MA
L0605331-02	B-531E-10-15-01	WAYLAND, MA
L0605331-03	B-531C-15-20-01	WAYLAND, MA
L0605331-04	B-531C-10-15-01	WAYLAND, MA
L0605331-05	B-531D-15-20-01	WAYLAND, MA
L0605331-06	B-531E-15-20-01	WAYLAND, MA
L0605331-07	B-525C-15-20-01	WAYLAND, MA
L0605331-08	B-525C-10-15-01	WAYLAND, MA
L0605331-09	TB-001-20060414-01	WAYLAND, MA
L0605331-10	B-525B-10-15-01	WAYLAND, MA
L0605331-11	B-525B-15-20-01	WAYLAND, MA
L0605331-12	B-525A-10-15-01	WAYLAND, MA
L0605331-13	B-525A-15-20-01	WAYLAND, MA
L0605331-14	B-530B-10-15-01	WAYLAND, MA
L0605331-15	B-530B-15-20-01	WAYLAND, MA
L0605331-16	B-530C-5-10-01	WAYLAND, MA
L0605331-17	B-530C-10-15-01	WAYLAND, MA
L0605331-18	B-531F-15-20-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0605331

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MCP Related Narratives

Volatile Organics

In reference to question E:

The WG236583-1,2 LCS/LCSD % recoveries for Acetone are above the acceptance criteria for the method.

The WG236414-5 LCSD % recovery for Dichlorodifluoromethane is below the acceptance criteria for the method.

Both are difficult 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:	L0605331-03	Date Collected:	14-APR-2006 07:45
	B-531C-15-20-01	Date Received :	14-APR-2006
Sample Matrix:	SOIL	Date Reported :	19-APR-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP      ANAL	ID
Solids, Total	75	%	0.10	30 2540G		0417 10:58 PD
Volatile Organics by MCP 8260B/5035-High				60 8260B		0418 12:42 PD
Methylene chloride	ND	ug/kg	950			
1,1-Dichloroethane	ND	ug/kg	140			
Chloroform	ND	ug/kg	140			
Carbon tetrachloride	ND	ug/kg	95.			
1,2-Dichloropropane	ND	ug/kg	330			
Dibromochloromethane	ND	ug/kg	95.			
1,1,2-Trichloroethane	ND	ug/kg	140			
Tetrachloroethene	200	ug/kg	95.			
Chlorobenzene	ND	ug/kg	95.			
Trichlorofluoromethane	ND	ug/kg	480			
1,2-Dichloroethane	ND	ug/kg	95.			
1,1,1-Trichloroethane	ND	ug/kg	95.			
Bromodichloromethane	ND	ug/kg	95.			
trans-1,3-Dichloropropene	ND	ug/kg	95.			
cis-1,3-Dichloropropene	ND	ug/kg	95.			
1,1-Dichloropropene	ND	ug/kg	480			
Bromoform	ND	ug/kg	380			
1,1,2,2-Tetrachloroethane	ND	ug/kg	95.			
Benzene	ND	ug/kg	95.			
Toluene	ND	ug/kg	140			
Ethylbenzene	ND	ug/kg	95.			
Chloromethane	ND	ug/kg	480			
Bromomethane	ND	ug/kg	190			
Vinyl chloride	ND	ug/kg	190			
Chloroethane	ND	ug/kg	190			
1,1-Dichloroethene	ND	ug/kg	95.			
trans-1,2-Dichloroethene	ND	ug/kg	140			
Trichloroethene	1200	ug/kg	95.			
1,2-Dichlorobenzene	ND	ug/kg	480			
1,3-Dichlorobenzene	ND	ug/kg	480			
1,4-Dichlorobenzene	ND	ug/kg	480			
Methyl tert butyl ether	ND	ug/kg	190			
p/m-Xylene	ND	ug/kg	190			
o-Xylene	ND	ug/kg	190			
cis-1,2-Dichloroethene	180	ug/kg	95.			
Dibromomethane	ND	ug/kg	950			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-03  
B-531C-15-20-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B	0418 12:42 PD		
1,2,3-Trichloropropane	ND	ug/kg	950				
Styrene	ND	ug/kg	190				
Dichlorodifluoromethane	ND	ug/kg	950				
Acetone	ND	ug/kg	950				
Carbon disulfide	ND	ug/kg	950				
2-Butanone	ND	ug/kg	950				
4-Methyl-2-pentanone	ND	ug/kg	950				
2-Hexanone	ND	ug/kg	950				
Bromochloromethane	ND	ug/kg	480				
Tetrahydrofuran	ND	ug/kg	1900				
2,2-Dichloropropane	ND	ug/kg	480				
1,2-Dibromoethane	ND	ug/kg	380				
1,3-Dichloropropane	ND	ug/kg	480				
1,1,1,2-Tetrachloroethane	ND	ug/kg	95.				
Bromobenzene	ND	ug/kg	480				
n-Butylbenzene	ND	ug/kg	95.				
sec-Butylbenzene	ND	ug/kg	95.				
tert-Butylbenzene	ND	ug/kg	480				
o-Chlorotoluene	ND	ug/kg	480				
p-Chlorotoluene	ND	ug/kg	480				
1,2-Dibromo-3-chloropropane	ND	ug/kg	480				
Hexachlorobutadiene	ND	ug/kg	480				
Isopropylbenzene	ND	ug/kg	95.				
p-Isopropyltoluene	ND	ug/kg	95.				
Naphthalene	ND	ug/kg	480				
n-Propylbenzene	ND	ug/kg	95.				
1,2,3-Trichlorobenzene	ND	ug/kg	480				
1,2,4-Trichlorobenzene	ND	ug/kg	480				
1,3,5-Trimethylbenzene	ND	ug/kg	480				
1,2,4-Trimethylbenzene	ND	ug/kg	480				
Ethyl ether	ND	ug/kg	480				
Isopropyl Ether	ND	ug/kg	380				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	380				
Tertiary-Amyl Methyl Ether	ND	ug/kg	380				
1,4-Dioxane	ND	ug/kg	48000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	101	%	70-130				
4-Bromofluorobenzene	109	%	70-130				
Dibromofluoromethane	93.0	%	70-130				

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





**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-05  
 B-531D-15-20-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0419 00:11 PD	
1,2,3-Trichloropropane	ND	ug/kg	780				
Styrene	ND	ug/kg	160				
Dichlorodifluoromethane	ND	ug/kg	780				
Acetone	ND	ug/kg	780				
Carbon disulfide	ND	ug/kg	780				
2-Butanone	ND	ug/kg	780				
4-Methyl-2-pentanone	ND	ug/kg	780				
2-Hexanone	ND	ug/kg	780				
Bromochloromethane	ND	ug/kg	390				
Tetrahydrofuran	ND	ug/kg	1600				
2,2-Dichloropropane	ND	ug/kg	390				
1,2-Dibromoethane	ND	ug/kg	310				
1,3-Dichloropropane	ND	ug/kg	390				
1,1,1,2-Tetrachloroethane	ND	ug/kg	78.				
Bromobenzene	ND	ug/kg	390				
n-Butylbenzene	ND	ug/kg	78.				
sec-Butylbenzene	ND	ug/kg	78.				
tert-Butylbenzene	ND	ug/kg	390				
o-Chlorotoluene	ND	ug/kg	390				
p-Chlorotoluene	ND	ug/kg	390				
1,2-Dibromo-3-chloropropane	ND	ug/kg	390				
Hexachlorobutadiene	ND	ug/kg	390				
Isopropylbenzene	ND	ug/kg	78.				
p-Isopropyltoluene	ND	ug/kg	78.				
Naphthalene	ND	ug/kg	390				
n-Propylbenzene	ND	ug/kg	78.				
1,2,3-Trichlorobenzene	ND	ug/kg	390				
1,2,4-Trichlorobenzene	ND	ug/kg	390				
1,3,5-Trimethylbenzene	ND	ug/kg	390				
1,2,4-Trimethylbenzene	ND	ug/kg	390				
Ethyl ether	ND	ug/kg	390				
Isopropyl Ether	ND	ug/kg	310				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	310				
Tertiary-Amyl Methyl Ether	ND	ug/kg	310				
1,4-Dioxane	ND	ug/kg	39000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	107	%	70-130				
Dibromofluoromethane	94.0	%	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:** L0605331-09 **Date Collected:** 12-APR-2006 17:34  
**Date Received :** 14-APR-2006  
**Sample Matrix:** SOIL **Date Reported :** 19-APR-2006  
**Condition of Sample:** Satisfactory **Field Prep:** None

**Number & Type of Containers:** 1-Vial

**Comments:**  
 Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0418 11:17 PD		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-09  
 TB-001-20060414-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0418 11:17 PD		
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	97.0	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	109	%	70-130				
Dibromofluoromethane	96.0	%	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:	L0605331-10	Date Collected:	14-APR-2006 10:25
	B-525B-10-15-01	Date Received :	14-APR-2006
Sample Matrix:	SOIL	Date Reported :	19-APR-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	1-Plastic,3-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Solids, Total	76	%	0.10	30 2540G		0417 10:58 PD
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0418 12:00 PD
Methylene chloride	ND	ug/kg	13.			
1,1-Dichloroethane	ND	ug/kg	2.0			
Chloroform	ND	ug/kg	2.0			
Carbon tetrachloride	ND	ug/kg	1.3			
1,2-Dichloropropane	ND	ug/kg	4.6			
Dibromochloromethane	ND	ug/kg	1.3			
1,1,2-Trichloroethane	ND	ug/kg	2.0			
Tetrachloroethene	44	ug/kg	1.3			
Chlorobenzene	ND	ug/kg	1.3			
Trichlorofluoromethane	ND	ug/kg	6.6			
1,2-Dichloroethane	ND	ug/kg	1.3			
1,1,1-Trichloroethane	ND	ug/kg	1.3			
Bromodichloromethane	ND	ug/kg	1.3			
trans-1,3-Dichloropropene	ND	ug/kg	1.3			
cis-1,3-Dichloropropene	ND	ug/kg	1.3			
1,1-Dichloropropene	ND	ug/kg	6.6			
Bromoform	ND	ug/kg	5.3			
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.3			
Benzene	ND	ug/kg	1.3			
Toluene	ND	ug/kg	2.0			
Ethylbenzene	ND	ug/kg	1.3			
Chloromethane	ND	ug/kg	6.6			
Bromomethane	ND	ug/kg	2.6			
Vinyl chloride	ND	ug/kg	2.6			
Chloroethane	ND	ug/kg	2.6			
1,1-Dichloroethene	ND	ug/kg	1.3			
trans-1,2-Dichloroethene	ND	ug/kg	2.0			
Trichloroethene	250	ug/kg	1.3			
1,2-Dichlorobenzene	ND	ug/kg	6.6			
1,3-Dichlorobenzene	ND	ug/kg	6.6			
1,4-Dichlorobenzene	ND	ug/kg	6.6			
Methyl tert butyl ether	ND	ug/kg	2.6			
p/m-Xylene	ND	ug/kg	2.6			
o-Xylene	ND	ug/kg	2.6			
cis-1,2-Dichloroethene	85	ug/kg	1.3			
Dibromomethane	ND	ug/kg	13.			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-10  
 B-525B-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0418 12:00 PD		
1,2,3-Trichloropropane	ND	ug/kg	13.				
Styrene	ND	ug/kg	2.6				
Dichlorodifluoromethane	ND	ug/kg	13.				
Acetone	ND	ug/kg	13.				
Carbon disulfide	ND	ug/kg	13.				
2-Butanone	ND	ug/kg	13.				
4-Methyl-2-pentanone	ND	ug/kg	13.				
2-Hexanone	ND	ug/kg	13.				
Bromochloromethane	ND	ug/kg	6.6				
Tetrahydrofuran	ND	ug/kg	26.				
2,2-Dichloropropane	ND	ug/kg	6.6				
1,2-Dibromoethane	ND	ug/kg	5.3				
1,3-Dichloropropane	ND	ug/kg	6.6				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.3				
Bromobenzene	ND	ug/kg	6.6				
n-Butylbenzene	ND	ug/kg	1.3				
sec-Butylbenzene	ND	ug/kg	1.3				
tert-Butylbenzene	ND	ug/kg	6.6				
o-Chlorotoluene	ND	ug/kg	6.6				
p-Chlorotoluene	ND	ug/kg	6.6				
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6				
Hexachlorobutadiene	ND	ug/kg	6.6				
Isopropylbenzene	ND	ug/kg	1.3				
p-Isopropyltoluene	ND	ug/kg	1.3				
Naphthalene	ND	ug/kg	6.6				
n-Propylbenzene	ND	ug/kg	1.3				
1,2,3-Trichlorobenzene	ND	ug/kg	6.6				
1,2,4-Trichlorobenzene	ND	ug/kg	6.6				
1,3,5-Trimethylbenzene	ND	ug/kg	6.6				
1,2,4-Trimethylbenzene	ND	ug/kg	6.6				
Ethyl ether	ND	ug/kg	6.6				
Isopropyl Ether	ND	ug/kg	5.3				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	5.3				
Tertiary-Amyl Methyl Ether	ND	ug/kg	5.3				
1,4-Dioxane	ND	ug/kg	660				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	95.0	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	110	%	70-130				
Dibromofluoromethane	96.0	%	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

<b>Laboratory Sample Number:</b> L0605331-12	<b>Date Collected:</b> 14-APR-2006 11:10
B-525A-10-15-01	<b>Date Received :</b> 14-APR-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 19-APR-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	75	%	0.10	30 2540G		0417 10:58 PD
Volatile Organics by MCP 8260B/5035-High				60 8260B		0419 00:54 PD
Methylene chloride	ND	ug/kg	890			
1,1-Dichloroethane	ND	ug/kg	130			
Chloroform	ND	ug/kg	130			
Carbon tetrachloride	ND	ug/kg	89.			
1,2-Dichloropropane	ND	ug/kg	310			
Dibromochloromethane	ND	ug/kg	89.			
1,1,2-Trichloroethane	ND	ug/kg	130			
Tetrachloroethene	220	ug/kg	89.			
Chlorobenzene	ND	ug/kg	89.			
Trichlorofluoromethane	ND	ug/kg	440			
1,2-Dichloroethane	ND	ug/kg	89.			
1,1,1-Trichloroethane	ND	ug/kg	89.			
Bromodichloromethane	ND	ug/kg	89.			
trans-1,3-Dichloropropene	ND	ug/kg	89.			
cis-1,3-Dichloropropene	ND	ug/kg	89.			
1,1-Dichloropropene	ND	ug/kg	440			
Bromoform	ND	ug/kg	350			
1,1,2,2-Tetrachloroethane	ND	ug/kg	89.			
Benzene	ND	ug/kg	89.			
Toluene	ND	ug/kg	130			
Ethylbenzene	ND	ug/kg	89.			
Chloromethane	ND	ug/kg	440			
Bromomethane	ND	ug/kg	180			
Vinyl chloride	ND	ug/kg	180			
Chloroethane	ND	ug/kg	180			
1,1-Dichloroethene	ND	ug/kg	89.			
trans-1,2-Dichloroethene	ND	ug/kg	130			
Trichloroethene	1800	ug/kg	89.			
1,2-Dichlorobenzene	ND	ug/kg	440			
1,3-Dichlorobenzene	ND	ug/kg	440			
1,4-Dichlorobenzene	ND	ug/kg	440			
Methyl tert butyl ether	ND	ug/kg	180			
p/m-Xylene	ND	ug/kg	180			
o-Xylene	ND	ug/kg	180			
cis-1,2-Dichloroethene	330	ug/kg	89.			
Dibromomethane	ND	ug/kg	890			

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-12  
 B-525A-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0419 00:54 PD	
1,2,3-Trichloropropane	ND	ug/kg	890				
Styrene	ND	ug/kg	180				
Dichlorodifluoromethane	ND	ug/kg	890				
Acetone	ND	ug/kg	890				
Carbon disulfide	ND	ug/kg	890				
2-Butanone	ND	ug/kg	890				
4-Methyl-2-pentanone	ND	ug/kg	890				
2-Hexanone	ND	ug/kg	890				
Bromochloromethane	ND	ug/kg	440				
Tetrahydrofuran	ND	ug/kg	1800				
2,2-Dichloropropane	ND	ug/kg	440				
1,2-Dibromoethane	ND	ug/kg	350				
1,3-Dichloropropane	ND	ug/kg	440				
1,1,1,2-Tetrachloroethane	ND	ug/kg	89.				
Bromobenzene	ND	ug/kg	440				
n-Butylbenzene	ND	ug/kg	89.				
sec-Butylbenzene	ND	ug/kg	89.				
tert-Butylbenzene	ND	ug/kg	440				
o-Chlorotoluene	ND	ug/kg	440				
p-Chlorotoluene	ND	ug/kg	440				
1,2-Dibromo-3-chloropropane	ND	ug/kg	440				
Hexachlorobutadiene	ND	ug/kg	440				
Isopropylbenzene	ND	ug/kg	89.				
p-Isopropyltoluene	ND	ug/kg	89.				
Naphthalene	ND	ug/kg	440				
n-Propylbenzene	ND	ug/kg	89.				
1,2,3-Trichlorobenzene	ND	ug/kg	440				
1,2,4-Trichlorobenzene	ND	ug/kg	440				
1,3,5-Trimethylbenzene	ND	ug/kg	440				
1,2,4-Trimethylbenzene	ND	ug/kg	440				
Ethyl ether	ND	ug/kg	440				
Isopropyl Ether	ND	ug/kg	350				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	350				
Tertiary-Amyl Methyl Ether	ND	ug/kg	350				
1,4-Dioxane	ND	ug/kg	44000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	95.0	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	110	%	70-130				
Dibromofluoromethane	94.0	%	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:	L0605331-14	Date Collected:	14-APR-2006 12:05
	B-530B-10-15-01	Date Received :	14-APR-2006
Sample Matrix:	SOIL	Date Reported :	19-APR-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Solids, Total	75	%	0.10	30 2540G		0417 10:58 PD
Volatile Organics by MCP 8260B/5035-High				60 8260B		0419 11:06 RY
Methylene chloride	ND	ug/kg	840			
1,1-Dichloroethane	ND	ug/kg	120			
Chloroform	ND	ug/kg	120			
Carbon tetrachloride	ND	ug/kg	84.			
1,2-Dichloropropane	ND	ug/kg	290			
Dibromochloromethane	ND	ug/kg	84.			
1,1,2-Trichloroethane	ND	ug/kg	120			
Tetrachloroethene	210	ug/kg	84.			
Chlorobenzene	ND	ug/kg	84.			
Trichlorofluoromethane	ND	ug/kg	420			
1,2-Dichloroethane	ND	ug/kg	84.			
1,1,1-Trichloroethane	ND	ug/kg	84.			
Bromodichloromethane	ND	ug/kg	84.			
trans-1,3-Dichloropropene	ND	ug/kg	84.			
cis-1,3-Dichloropropene	ND	ug/kg	84.			
1,1-Dichloropropene	ND	ug/kg	420			
Bromoform	ND	ug/kg	340			
1,1,2,2-Tetrachloroethane	ND	ug/kg	84.			
Benzene	ND	ug/kg	84.			
Toluene	ND	ug/kg	120			
Ethylbenzene	ND	ug/kg	84.			
Chloromethane	ND	ug/kg	420			
Bromomethane	ND	ug/kg	170			
Vinyl chloride	ND	ug/kg	170			
Chloroethane	ND	ug/kg	170			
1,1-Dichloroethene	ND	ug/kg	84.			
trans-1,2-Dichloroethene	ND	ug/kg	120			
Trichloroethene	1700	ug/kg	84.			
1,2-Dichlorobenzene	ND	ug/kg	420			
1,3-Dichlorobenzene	ND	ug/kg	420			
1,4-Dichlorobenzene	ND	ug/kg	420			
Methyl tert butyl ether	ND	ug/kg	170			
p/m-Xylene	ND	ug/kg	170			
o-Xylene	ND	ug/kg	170			
cis-1,2-Dichloroethene	260	ug/kg	84.			
Dibromomethane	ND	ug/kg	840			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0605331-14  
 B-530B-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0419 11:06 RY	
1,2,3-Trichloropropane	ND	ug/kg	840				
Styrene	ND	ug/kg	170				
Dichlorodifluoromethane	ND	ug/kg	840				
Acetone	ND	ug/kg	840				
Carbon disulfide	ND	ug/kg	840				
2-Butanone	ND	ug/kg	840				
4-Methyl-2-pentanone	ND	ug/kg	840				
2-Hexanone	ND	ug/kg	840				
Bromochloromethane	ND	ug/kg	420				
Tetrahydrofuran	ND	ug/kg	1700				
2,2-Dichloropropane	ND	ug/kg	420				
1,2-Dibromoethane	ND	ug/kg	340				
1,3-Dichloropropane	ND	ug/kg	420				
1,1,1,2-Tetrachloroethane	ND	ug/kg	84.				
Bromobenzene	ND	ug/kg	420				
n-Butylbenzene	ND	ug/kg	84.				
sec-Butylbenzene	ND	ug/kg	84.				
tert-Butylbenzene	ND	ug/kg	420				
o-Chlorotoluene	ND	ug/kg	420				
p-Chlorotoluene	ND	ug/kg	420				
1,2-Dibromo-3-chloropropane	ND	ug/kg	420				
Hexachlorobutadiene	ND	ug/kg	420				
Isopropylbenzene	ND	ug/kg	84.				
p-Isopropyltoluene	ND	ug/kg	84.				
Naphthalene	ND	ug/kg	420				
n-Propylbenzene	ND	ug/kg	84.				
1,2,3-Trichlorobenzene	ND	ug/kg	420				
1,2,4-Trichlorobenzene	ND	ug/kg	420				
1,3,5-Trimethylbenzene	ND	ug/kg	420				
1,2,4-Trimethylbenzene	ND	ug/kg	420				
Ethyl ether	ND	ug/kg	420				
Isopropyl Ether	ND	ug/kg	340				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	340				
Tertiary-Amyl Methyl Ether	ND	ug/kg	340				
1,4-Dioxane	ND	ug/kg	42000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	106	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	104	%	70-130				
Dibromofluoromethane	95.0	%	70-130				

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











ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0605331

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Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 03,05,10,12,14 (L0605329-01, WG236263-1)					
Solids, Total	90	90	%	0	20

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**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0605331

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 09-10 (WG236422-1, WG236422-2)					
Methylene chloride	118	115	3	25	70-130
1,1-Dichloroethane	110	110	0	25	70-130
Chloroform	107	105	2	25	70-130
Carbon tetrachloride	106	102	4	25	70-130
1,2-Dichloropropane	119	117	2	25	70-130
Dibromochloromethane	101	100	1	25	70-130
1,1,2-Trichloroethane	122	119	2	25	70-130
Tetrachloroethene	126	119	6	25	70-130
Chlorobenzene	114	111	3	25	70-130
Trichlorofluoromethane	110	102	8	25	70-130
1,2-Dichloroethane	112	106	6	25	70-130
1,1,1-Trichloroethane	107	103	4	25	70-130
Bromodichloromethane	105	101	4	25	70-130
trans-1,3-Dichloropropene	100	98	2	25	70-130
cis-1,3-Dichloropropene	111	109	2	25	70-130
1,1-Dichloropropene	116	111	4	25	70-130
Bromoform	99	95	4	50	70-130
1,1,2,2-Tetrachloroethane	128	121	6	25	70-130
Benzene	116	113	3	25	70-130
Toluene	112	110	2	25	70-130
Ethylbenzene	118	114	3	25	70-130
Chloromethane	92	88	4	50	70-130
Bromomethane	98	98	0	50	70-130
Vinyl chloride	100	95	5	25	70-130
Chloroethane	106	102	4	25	70-130
1,1-Dichloroethene	113	109	4	25	70-130
trans-1,2-Dichloroethene	114	110	4	25	70-130
Trichloroethene	112	109	3	25	70-130
1,2-Dichlorobenzene	114	111	3	25	70-130
1,3-Dichlorobenzene	116	113	3	25	70-130
1,4-Dichlorobenzene	115	112	3	25	70-130
Methyl tert butyl ether	107	105	2	25	70-130
p/m-Xylene	121	117	3	25	70-130
o-Xylene	119	117	2	25	70-130
cis-1,2-Dichloroethene	122	117	4	25	70-130
Dibromomethane	122	117	4	25	70-130
1,2,3-Trichloropropane	126	121	4	25	70-130
Styrene	120	117	3	25	70-130
Dichlorodifluoromethane	73	70	4	50	70-130
Acetone	130	112	15	50	70-130
Carbon disulfide	81	80	1	25	70-130
2-Butanone	117	109	7	50	70-130
4-Methyl-2-pentanone	111	100	10	50	70-130
2-Hexanone	113	105	7	50	70-130
Bromochloromethane	116	113	3	25	70-130
Tetrahydrofuran	119	109	9	25	70-130
2,2-Dichloropropane	108	105	3	50	70-130
1,2-Dibromoethane	116	113	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 09-10 (WG236422-1, WG236422-2)					
1,3-Dichloropropane	114	112	2	25	70-130
1,1,1,2-Tetrachloroethane	109	109	0	25	70-130
Bromobenzene	114	112	2	25	70-130
n-Butylbenzene	122	116	5	25	70-130
sec-Butylbenzene	119	114	4	25	70-130
tert-Butylbenzene	113	111	2	25	70-130
o-Chlorotoluene	114	111	3	25	70-130
p-Chlorotoluene	111	108	3	25	70-130
1,2-Dibromo-3-chloropropane	95	94	1	50	70-130
Hexachlorobutadiene	105	103	2	25	70-130
Isopropylbenzene	127	123	3	25	70-130
p-Isopropyltoluene	120	114	5	25	70-130
Naphthalene	94	98	4	25	70-130
n-Propylbenzene	120	116	3	25	70-130
1,2,3-Trichlorobenzene	104	107	3	25	70-130
1,2,4-Trichlorobenzene	99	99	0	25	70-130
1,3,5-Trimethylbenzene	115	112	3	25	70-130
1,2,4-Trimethylbenzene	116	112	4	25	70-130
Ethyl ether	106	103	3	25	70-130
Isopropyl Ether	112	112	0	25	70-130
Ethyl-Tert-Butyl-Ether	108	106	2	25	70-130
Tertiary-Amyl Methyl Ether	108	106	2	25	70-130
1,4-Dioxane	126	113	11	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	100	96	4		70-130
Toluene-d8	100	100	0		70-130
4-Bromofluorobenzene	96	96	0		70-130
Dibromofluoromethane	99	99	0		70-130
Volatile Organics by MCP 8260B/5035-High for sample(s) 03 (WG236414-1, WG236414-2)					
Methylene chloride	118	115	3	25	70-130
1,1-Dichloroethane	110	110	0	25	70-130
Chloroform	107	105	2	25	70-130
Carbon tetrachloride	106	102	4	25	70-130
1,2-Dichloropropane	119	117	2	25	70-130
Dibromochloromethane	101	100	1	25	70-130
1,1,2-Trichloroethane	122	119	2	25	70-130
Tetrachloroethene	126	119	6	25	70-130
Chlorobenzene	114	111	3	25	70-130
Trichlorofluoromethane	110	102	8	25	70-130
1,2-Dichloroethane	112	106	6	25	70-130
1,1,1-Trichloroethane	107	103	4	25	70-130
Bromodichloromethane	105	101	4	25	70-130
trans-1,3-Dichloropropene	100	98	2	25	70-130
cis-1,3-Dichloropropene	111	109	2	25	70-130
1,1-Dichloropropene	116	111	4	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 03 (WG236414-1, WG236414-2)					
Bromoform	99	95	4	50	70-130
1,1,2,2-Tetrachloroethane	128	121	6	25	70-130
Benzene	116	113	3	25	70-130
Toluene	112	110	2	25	70-130
Ethylbenzene	118	114	3	25	70-130
Chloromethane	92	88	4	50	70-130
Bromomethane	98	98	0	50	70-130
Vinyl chloride	100	95	5	25	70-130
Chloroethane	106	102	4	25	70-130
1,1-Dichloroethene	113	109	4	25	70-130
trans-1,2-Dichloroethene	114	110	4	25	70-130
Trichloroethene	112	109	3	25	70-130
1,2-Dichlorobenzene	114	111	3	25	70-130
1,3-Dichlorobenzene	116	113	3	25	70-130
1,4-Dichlorobenzene	115	112	3	25	70-130
Methyl tert butyl ether	107	105	2	25	70-130
p/m-Xylene	121	117	3	25	70-130
o-Xylene	119	117	2	25	70-130
cis-1,2-Dichloroethene	122	117	4	25	70-130
Dibromomethane	122	117	4	25	70-130
1,2,3-Trichloropropane	126	121	4	25	70-130
Styrene	120	117	3	25	70-130
Dichlorodifluoromethane	73	70	4	50	70-130
Acetone	130	112	15	50	70-130
Carbon disulfide	81	80	1	25	70-130
2-Butanone	117	109	7	50	70-130
4-Methyl-2-pentanone	111	100	10	50	70-130
2-Hexanone	113	105	7	50	70-130
Bromochloromethane	116	113	3	25	70-130
Tetrahydrofuran	119	109	9	25	70-130
2,2-Dichloropropane	108	105	3	50	70-130
1,2-Dibromoethane	116	113	3	25	70-130
1,3-Dichloropropane	114	112	2	25	70-130
1,1,1,2-Tetrachloroethane	109	109	0	25	70-130
Bromobenzene	114	112	2	25	70-130
n-Butylbenzene	122	116	5	25	70-130
sec-Butylbenzene	119	114	4	25	70-130
tert-Butylbenzene	113	111	2	25	70-130
o-Chlorotoluene	114	111	3	25	70-130
p-Chlorotoluene	111	108	3	25	70-130
1,2-Dibromo-3-chloropropane	95	94	1	50	70-130
Hexachlorobutadiene	105	103	2	25	70-130
Isopropylbenzene	127	123	3	25	70-130
p-Isopropyltoluene	120	114	5	25	70-130
Naphthalene	94	98	4	25	70-130
n-Propylbenzene	120	116	3	25	70-130
1,2,3-Trichlorobenzene	104	107	3	25	70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 03 (WG236414-1, WG236414-2)					
1,2,4-Trichlorobenzene	99	99	0	25	70-130
1,3,5-Trimethylbenzene	115	112	3	25	70-130
1,2,4-Trimethylbenzene	116	112	4	25	70-130
Ethyl ether	106	103	3	25	70-130
Isopropyl Ether	112	112	0	25	70-130
Ethyl-Tert-Butyl-Ether	108	106	2	25	70-130
Tertiary-Amyl Methyl Ether	108	106	2	25	70-130
1,4-Dioxane	126	113	11	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	100	96	4		70-130
Toluene-d8	100	100	0		70-130
4-Bromofluorobenzene	96	97	1		70-130
Dibromofluoromethane	99	99	0		70-130
Volatile Organics by MCP 8260B/5035-High for sample(s) 14 (WG236583-1, WG236583-2)					
Methylene chloride	87	87	0	25	70-130
1,1-Dichloroethane	118	115	3	25	70-130
Chloroform	108	106	2	25	70-130
Carbon tetrachloride	103	102	1	25	70-130
1,2-Dichloropropane	118	116	2	25	70-130
Dibromochloromethane	97	95	2	25	70-130
1,1,2-Trichloroethane	112	107	5	25	70-130
Tetrachloroethene	104	98	6	25	70-130
Chlorobenzene	102	98	4	25	70-130
Trichlorofluoromethane	115	113	2	25	70-130
1,2-Dichloroethane	126	124	2	25	70-130
1,1,1-Trichloroethane	107	106	1	25	70-130
Bromodichloromethane	107	108	1	25	70-130
trans-1,3-Dichloropropene	81	78	4	25	70-130
cis-1,3-Dichloropropene	90	90	0	25	70-130
1,1-Dichloropropene	113	108	5	25	70-130
Bromoform	101	102	1	50	70-130
1,1,2,2-Tetrachloroethane	100	96	4	25	70-130
Benzene	110	109	1	25	70-130
Toluene	105	102	3	25	70-130
Ethylbenzene	110	105	5	25	70-130
Chloromethane	102	103	1	50	70-130
Bromomethane	108	116	7	50	70-130
Vinyl chloride	105	107	2	25	70-130
Chloroethane	100	94	6	25	70-130
1,1-Dichloroethene	101	101	0	25	70-130
trans-1,2-Dichloroethene	102	103	1	25	70-130
Trichloroethene	109	105	4	25	70-130
1,2-Dichlorobenzene	95	94	1	25	70-130
1,3-Dichlorobenzene	99	97	2	25	70-130
1,4-Dichlorobenzene	97	96	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 14 (WG236583-1, WG236583-2)					
Methyl tert butyl ether	105	104	1	25	70-130
p/m-Xylene	110	107	3	25	70-130
o-Xylene	95	93	2	25	70-130
cis-1,2-Dichloroethene	111	110	1	25	70-130
Dibromomethane	114	110	4	25	70-130
1,2,3-Trichloropropane	110	106	4	25	70-130
Styrene	94	93	1	25	70-130
Dichlorodifluoromethane	86	85	1	50	70-130
Acetone	178	168	6	50	70-130
Carbon disulfide	114	112	2	25	70-130
2-Butanone	125	122	2	50	70-130
4-Methyl-2-pentanone	105	101	4	50	70-130
2-Hexanone	127	120	6	50	70-130
Bromochloromethane	107	104	3	25	70-130
Tetrahydrofuran	128	126	2	25	70-130
2,2-Dichloropropane	98	101	3	50	70-130
1,2-Dibromoethane	96	90	6	25	70-130
1,3-Dichloropropane	103	99	4	25	70-130
1,1,1,2-Tetrachloroethane	105	104	1	25	70-130
Bromobenzene	96	95	1	25	70-130
n-Butylbenzene	107	105	2	25	70-130
sec-Butylbenzene	103	101	2	25	70-130
tert-Butylbenzene	97	96	1	25	70-130
o-Chlorotoluene	107	105	2	25	70-130
p-Chlorotoluene	102	99	3	25	70-130
1,2-Dibromo-3-chloropropane	100	98	2	50	70-130
Hexachlorobutadiene	86	89	3	25	70-130
Isopropylbenzene	106	103	3	25	70-130
p-Isopropyltoluene	94	92	2	25	70-130
Naphthalene	85	90	6	25	70-130
n-Propylbenzene	106	102	4	25	70-130
1,2,3-Trichlorobenzene	87	90	3	25	70-130
1,2,4-Trichlorobenzene	88	91	3	25	70-130
1,3,5-Trimethylbenzene	102	99	3	25	70-130
1,2,4-Trimethylbenzene	105	101	4	25	70-130
Ethyl ether	120	118	2	25	70-130
Isopropyl Ether	129	128	1	25	70-130
Ethyl-Tert-Butyl-Ether	103	103	0	25	70-130
Tertiary-Amyl Methyl Ether	95	94	1	25	70-130
1,4-Dioxane	106	105	1	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	115	114	1		70-130
Toluene-d8	102	100	2		70-130
4-Bromofluorobenzene	101	98	3		70-130
Dibromofluoromethane	104	105	1		70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 05,12 (WG236414-4, WG236414-5)					
Methylene chloride	117	114	3	25	70-130
1,1-Dichloroethane	109	107	2	25	70-130
Chloroform	108	103	5	25	70-130
Carbon tetrachloride	107	99	8	25	70-130
1,2-Dichloropropane	116	113	3	25	70-130
Dibromochloromethane	102	107	5	25	70-130
1,1,2-Trichloroethane	116	116	0	25	70-130
Tetrachloroethene	120	114	5	25	70-130
Chlorobenzene	110	107	3	25	70-130
Trichlorofluoromethane	107	100	7	25	70-130
1,2-Dichloroethane	108	108	0	25	70-130
1,1,1-Trichloroethane	106	100	6	25	70-130
Bromodichloromethane	106	102	4	25	70-130
trans-1,3-Dichloropropene	98	98	0	25	70-130
cis-1,3-Dichloropropene	108	107	1	25	70-130
1,1-Dichloropropene	113	107	5	25	70-130
Bromoform	96	103	7	50	70-130
1,1,2,2-Tetrachloroethane	119	123	3	25	70-130
Benzene	112	110	2	25	70-130
Toluene	109	105	4	25	70-130
Ethylbenzene	114	109	4	25	70-130
Chloromethane	90	86	5	50	70-130
Bromomethane	98	99	1	50	70-130
Vinyl chloride	98	92	6	25	70-130
Chloroethane	103	99	4	25	70-130
1,1-Dichloroethene	110	105	5	25	70-130
trans-1,2-Dichloroethene	113	108	5	25	70-130
Trichloroethene	110	104	6	25	70-130
1,2-Dichlorobenzene	111	109	2	25	70-130
1,3-Dichlorobenzene	115	110	4	25	70-130
1,4-Dichlorobenzene	114	109	4	25	70-130
Methyl tert butyl ether	104	107	3	25	70-130
p/m-Xylene	120	113	6	25	70-130
o-Xylene	117	113	3	25	70-130
cis-1,2-Dichloroethene	117	116	1	25	70-130
Dibromomethane	115	114	1	25	70-130
1,2,3-Trichloropropane	115	124	8	25	70-130
Styrene	118	114	3	25	70-130
Dichlorodifluoromethane	74	67	10	50	70-130
Acetone	112	121	8	50	70-130
Carbon disulfide	84	77	9	25	70-130
2-Butanone	101	110	9	50	70-130
4-Methyl-2-pentanone	92	106	14	50	70-130
2-Hexanone	92	108	16	50	70-130
Bromochloromethane	116	112	4	25	70-130
Tetrahydrofuran	100	115	14	25	70-130
2,2-Dichloropropane	107	100	7	50	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0605331

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 05,12 (WG236414-4, WG236414-5)					
1,2-Dibromoethane	111	115	4	25	70-130
1,3-Dichloropropane	108	111	3	25	70-130
1,1,1,2-Tetrachloroethane	110	108	2	25	70-130
Bromobenzene	112	110	2	25	70-130
n-Butylbenzene	117	108	8	25	70-130
sec-Butylbenzene	115	110	4	25	70-130
tert-Butylbenzene	112	106	6	25	70-130
o-Chlorotoluene	112	108	4	25	70-130
p-Chlorotoluene	110	105	5	25	70-130
1,2-Dibromo-3-chloropropane	92	98	6	50	70-130
Hexachlorobutadiene	102	95	7	25	70-130
Isopropylbenzene	124	117	6	25	70-130
p-Isopropyltoluene	116	110	5	25	70-130
Naphthalene	86	96	11	25	70-130
n-Propylbenzene	117	111	5	25	70-130
1,2,3-Trichlorobenzene	97	102	5	25	70-130
1,2,4-Trichlorobenzene	94	95	1	25	70-130
1,3,5-Trimethylbenzene	113	108	5	25	70-130
1,2,4-Trimethylbenzene	114	108	5	25	70-130
Ethyl ether	104	107	3	25	70-130
Isopropyl Ether	109	109	0	25	70-130
Ethyl-Tert-Butyl-Ether	106	107	1	25	70-130
Tertiary-Amyl Methyl Ether	103	106	3	25	70-130
1,4-Dioxane	105	119	13	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	96	97	1		70-130
Toluene-d8	100	99	1		70-130
4-Bromofluorobenzene	96	96	0		70-130
Dibromofluoromethane	103	100	3		70-130



**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0605331

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 09-10 (WG236422-3)							
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0418 08:57 PD		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 09-10 (WG236422-3)							
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0418 08:57 PD		
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	96.0	%	70-130				
Blank Analysis for sample(s) 03 (WG236414-3)							
Volatile Organics by MCP 8260B/5035-High				60 8260B	0418 08:57 PD		
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03 (WG236414-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0418 08:57 PD	
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				

**ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03 (WG236414-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0418 08:57	PD
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	96.0	%	70-130				
Blank Analysis for sample(s) 05,12 (WG236414-6)							
Volatile Organics by MCP 8260B/5035-High				60 8260B		0418 14:54	PD
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05,12 (WG236414-6)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0418 14:54 PD	
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05,12 (WG236414-6)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0418 14:54	PD
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	104	%	70-130				
Dibromofluoromethane	96.0	%	70-130				
Blank Analysis for sample(s) 14 (WG236583-3)							
Volatile Organics by MCP 8260B/5035-High				60 8260B		0419 10:11	RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0605331

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 14 (WG236583-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B	0419 10:11		RY
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	106	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	104	%	70-130				
Dibromofluoromethane	94.0	%	70-130				

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
  
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI         Not Ignitable.  
ug/cart    Micrograms per Cartridge.

**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: L0605331**

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
L0605331-01A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-01B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-01C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-01D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-02A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-02B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-02C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-02D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-03A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-03B	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-03C	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-03D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	TS
L0605331-04A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-04B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-04C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-04D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-05A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-05B	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-05C	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-05D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	TS
L0605331-06A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-06B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-06C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-06D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-07A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-07B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-07C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-07D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-08A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-08B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-08C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-08D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-09A	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260LW-04
L0605331-10A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	MCP-8260LW-04
L0605331-10B	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260LW-04
L0605331-10C	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260LW-04
L0605331-10D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	TS
L0605331-11A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-11B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-11C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-11D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD

**ALPHA ANALYTICAL LABORATORIES  
LOGIN SPECIFIC INFORMATION**

Laboratory Job Number: L0605331

Continued

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0605331-12A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-12B	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-12C	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-12D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	TS
L0605331-13A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-13B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-13C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-13D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-14A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-14B	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-14C	Vial water preserved	A	N/A	1.0 C	Y	Absent	MCP-8260H-04
L0605331-14D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	TS
L0605331-15A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-15B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-15C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-15D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-16A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-16B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-16C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-16D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-17A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-17B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-17C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-17D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-18A	Vial MeOH preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-18B	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-18C	Vial water preserved	A	N/A	1.0 C	Y	Absent	HOLD
L0605331-18D	Plastic 2oz unpreserved for TS	A	N/A	1.0 C	Y	Absent	HOLD

**Container Comments**

Container ID    Comments



WESTBORO, MA  
 TEL: 508-898-9220  
 FAX: 508-898-9193

RAYNHAM, MA  
 TEL: 508-822-9300  
 FAX: 508-822-3288

# CHAIN OF CUSTODY

## Client Information

Client: ERM

Address: 399 Boylston St  
Boston, MA 02116

Phone: 617 646 7802

Fax: 617 267 6447

Email: jeremy.picaud@erm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
O = water preserved

## Project Information

Project Name: Raytheon Weyland

Project Location: Weyland, MA

Project #: 042925

Project Manager: Jeremy Picaud

ALPHA Quote #:

Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: 4/19/06 Time: 12 hr

Date Rec'd in Lab: 4/14/06 ALPHA Job #: LO005331

## Report Information - Data Deliverables

FAX  EMAIL

ADEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State / Fed Program MA / MCP Criteria S-1

## MAMC/PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

## Billing Information

Same as Client info

PO #:

ANALYSIS	RESULTS
8260 Low	X
8260 High	X
Total Solids	X

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Container Type	Preservative	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time	Sample Specific Comments
		Date	Time										
LO005331-01	B-531D-20-25-01	4/14/06	8:35	S	CR	N	N	4/14/06 10:25	[Signature]	4/14/06 13:10	[Signature]	4/14/06 20:15	Hold
02	B-531E-10-15-01		8:50			N	N						Hold
03	B-531C-15-20-01		7:45			N	N						Hold
04	B-531C-10-15-01		7:35			N	N						Hold
05	B-531D-15-20-01		8:30			N	N						Hold
06	B-531E-15-20-01		9:00			N	N						Hold
07	B-525C-15-20-01		9:45			N	N						Hold
08	B-525C-10-15-01		10:00			N	N						Hold
09	TB-001-20060414-01	4/12/06	17:34			N	N						Hold
10	B-525B-10-15-01	4/14/06	10:25	S	CR	N	N						Hold

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

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.



WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

RAYNHAM, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

# CHAIN OF CUSTODY

### Client Information

Client: ERM

Address: 399 Boylston St  
Boston MA 02116

Phone: 617 646 7800

Fax: 617 267 6417

Email: jeremy.picard@erm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
O=water preserved

### Project Information

Project Name: Pathogen Weyland

Project Location: Weyland, MA

Project #: 42925

Project Manager: Jeremy Picard

ALPHA Quote #:

Turn-Around Time

Standard

Date Due: 4/19/00 72 hr Time: CRUSH (only confirmed if pre-approved)

Date Rec'd in Lab: 4/14/00

### Report Information - Data Deliverables

FAX  EMAIL

REXEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State /Fed /Program MA /MCP Criteria S-1

### MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Job #: 10005331

### Billing Information

Same as Client Info PO #:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
<u>10005331-11</u>	<u>B-525B-15-20-01</u>	<u>4/14/06</u>	<u>1035</u>	<u>S</u>	<u>CR</u>
<u>12</u>	<u>B-525A-10-15-01</u>		<u>1116</u>		
<u>13</u>	<u>B-525A-15-20-01</u>		<u>1126</u>		
<u>14</u>	<u>B-530B-10-15-01</u>		<u>1205</u>		
<u>15</u>	<u>B-530B-15-20-01</u>		<u>1215</u>		
<u>16</u>	<u>B-530C-5-10-01</u>		<u>1230</u>		
<u>17</u>	<u>B-530C-10-15-01</u>		<u>1235</u>		
<u>18</u>	<u>B-531E-15-20-01</u>		<u>1305</u>		

ANALYSIS	8260 Low		8260 High		Total Solids
	Y	N	Y	N	
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	

SAMPLE HANDLING	Filtration		Preservation	
	Done	Not needed	Lab to do	Lab to do
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PLEASE ANSWER QUESTIONS ABOVE!

Container Type	Preservative
<u>VVP</u>	<u>OPA</u>

### IS YOUR PROJECT MA MCP or CT RCP?

Retrieved By: [Signature] Date/Time: 4/14/00 20:00  
 Received By: [Signature] Date/Time: 4/14/00 20:00

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.

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: L0601935  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 10-FEB-2006  
Attn: Jeremy Picard Date Reported: 16-FEB-2006  
Project Number: 0043036 Delivery Method: Alpha  
Site: RAYTHEON-WAYLAND

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? YES
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0601935

Date Reported: 16-FEB-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0601935-01	B-534B-15-20-2.2-01	WAYLAND, MA
L0601935-02	B-529-5-10-4.6-01	WAYLAND, MA
L0601935-03	B-522-10-15-1.75-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0601935

---

Volatile Organics

The following samples have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples:

L0601935-02 (4X)

L0601935-03 (2.5X)

**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

<b>Laboratory Sample Number:</b> L0601935-01	<b>Date Collected:</b> 01-FEB-2006 14:00
B-534B-15-20-2.2-01	<b>Date Received :</b> 10-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 16-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	74	%	0.10	30 2540G		0213 19:50	PJ
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0214 13:06	PD
Methylene chloride	ND	ug/kg	8.1				
1,1-Dichloroethane	ND	ug/kg	1.2				
Chloroform	ND	ug/kg	1.2				
Carbon tetrachloride	ND	ug/kg	0.81				
1,2-Dichloropropane	ND	ug/kg	2.8				
Dibromochloromethane	ND	ug/kg	0.81				
1,1,2-Trichloroethane	ND	ug/kg	1.2				
Tetrachloroethene	ND	ug/kg	0.81				
Chlorobenzene	ND	ug/kg	0.81				
Trichlorofluoromethane	ND	ug/kg	4.1				
1,2-Dichloroethane	ND	ug/kg	0.81				
1,1,1-Trichloroethane	ND	ug/kg	0.81				
Bromodichloromethane	ND	ug/kg	0.81				
trans-1,3-Dichloropropene	ND	ug/kg	0.81				
cis-1,3-Dichloropropene	ND	ug/kg	0.81				
1,1-Dichloropropene	ND	ug/kg	4.1				
Bromoform	ND	ug/kg	3.2				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.81				
Benzene	ND	ug/kg	0.81				
Toluene	ND	ug/kg	1.2				
Ethylbenzene	ND	ug/kg	0.81				
Chloromethane	ND	ug/kg	4.1				
Bromomethane	ND	ug/kg	1.6				
Vinyl chloride	ND	ug/kg	1.6				
Chloroethane	ND	ug/kg	1.6				
1,1-Dichloroethene	ND	ug/kg	0.81				
trans-1,2-Dichloroethene	ND	ug/kg	1.2				
Trichloroethene	3.6	ug/kg	0.81				
1,2-Dichlorobenzene	ND	ug/kg	4.1				
1,3-Dichlorobenzene	ND	ug/kg	4.1				
1,4-Dichlorobenzene	ND	ug/kg	4.1				
Methyl tert butyl ether	ND	ug/kg	1.6				
p/m-Xylene	ND	ug/kg	1.6				
o-Xylene	ND	ug/kg	1.6				
cis-1,2-Dichloroethene	ND	ug/kg	0.81				
Dibromomethane	ND	ug/kg	8.1				

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601935-01  
 B-534B-15-20-2.2-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0214 13:06 PD		
1,2,3-Trichloropropane	ND	ug/kg	8.1				
Styrene	ND	ug/kg	1.6				
Dichlorodifluoromethane	ND	ug/kg	8.1				
Acetone	10	ug/kg	8.1				
Carbon disulfide	ND	ug/kg	8.1				
2-Butanone	ND	ug/kg	8.1				
4-Methyl-2-pentanone	ND	ug/kg	8.1				
2-Hexanone	ND	ug/kg	8.1				
Bromochloromethane	ND	ug/kg	4.1				
Tetrahydrofuran	ND	ug/kg	16.				
2,2-Dichloropropane	ND	ug/kg	4.1				
1,2-Dibromoethane	ND	ug/kg	3.2				
1,3-Dichloropropane	ND	ug/kg	4.1				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.81				
Bromobenzene	ND	ug/kg	4.1				
n-Butylbenzene	ND	ug/kg	0.81				
sec-Butylbenzene	ND	ug/kg	0.81				
tert-Butylbenzene	ND	ug/kg	4.1				
o-Chlorotoluene	ND	ug/kg	4.1				
p-Chlorotoluene	ND	ug/kg	4.1				
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.1				
Hexachlorobutadiene	ND	ug/kg	4.1				
Isopropylbenzene	ND	ug/kg	0.81				
p-Isopropyltoluene	ND	ug/kg	0.81				
Naphthalene	ND	ug/kg	4.1				
n-Propylbenzene	ND	ug/kg	0.81				
1,2,3-Trichlorobenzene	ND	ug/kg	4.1				
1,2,4-Trichlorobenzene	ND	ug/kg	4.1				
1,3,5-Trimethylbenzene	ND	ug/kg	4.1				
1,2,4-Trimethylbenzene	ND	ug/kg	4.1				
Ethyl ether	ND	ug/kg	4.1				
Isopropyl Ether	ND	ug/kg	3.2				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.2				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.2				
1,4-Dioxane	ND	ug/kg	410				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	113	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	112	%	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

<b>Laboratory Sample Number:</b> L0601935-02	<b>Date Collected:</b> 31-JAN-2006 13:20
B-529-5-10-4.6-01	<b>Date Received :</b> 10-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 16-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	75	%	0.10	30 2540G		0213 19:50	PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0214 14:16	PD
Methylene chloride	ND	ug/kg	6000				
1,1-Dichloroethane	ND	ug/kg	900				
Chloroform	ND	ug/kg	900				
Carbon tetrachloride	ND	ug/kg	600				
1,2-Dichloropropane	ND	ug/kg	2100				
Dibromochloromethane	ND	ug/kg	600				
1,1,2-Trichloroethane	ND	ug/kg	900				
Tetrachloroethene	17000	ug/kg	600				
Chlorobenzene	ND	ug/kg	600				
Trichlorofluoromethane	ND	ug/kg	3000				
1,2-Dichloroethane	ND	ug/kg	600				
1,1,1-Trichloroethane	ND	ug/kg	600				
Bromodichloromethane	ND	ug/kg	600				
trans-1,3-Dichloropropene	ND	ug/kg	600				
cis-1,3-Dichloropropene	ND	ug/kg	600				
1,1-Dichloropropene	ND	ug/kg	3000				
Bromoform	ND	ug/kg	2400				
1,1,2,2-Tetrachloroethane	ND	ug/kg	600				
Benzene	ND	ug/kg	600				
Toluene	5400	ug/kg	900				
Ethylbenzene	ND	ug/kg	600				
Chloromethane	ND	ug/kg	3000				
Bromomethane	ND	ug/kg	1200				
Vinyl chloride	ND	ug/kg	1200				
Chloroethane	ND	ug/kg	1200				
1,1-Dichloroethene	ND	ug/kg	600				
trans-1,2-Dichloroethene	ND	ug/kg	900				
Trichloroethene	57000	ug/kg	600				
1,2-Dichlorobenzene	ND	ug/kg	3000				
1,3-Dichlorobenzene	ND	ug/kg	3000				
1,4-Dichlorobenzene	ND	ug/kg	3000				
Methyl tert butyl ether	ND	ug/kg	1200				
p/m-Xylene	ND	ug/kg	1200				
o-Xylene	ND	ug/kg	1200				
cis-1,2-Dichloroethene	2500	ug/kg	600				
Dibromomethane	ND	ug/kg	6000				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601935-02  
 B-529-5-10-4.6-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0214 14:16 PD	
1,2,3-Trichloropropane	ND	ug/kg	6000				
Styrene	ND	ug/kg	1200				
Dichlorodifluoromethane	ND	ug/kg	6000				
Acetone	ND	ug/kg	6000				
Carbon disulfide	ND	ug/kg	6000				
2-Butanone	ND	ug/kg	6000				
4-Methyl-2-pentanone	ND	ug/kg	6000				
2-Hexanone	ND	ug/kg	6000				
Bromochloromethane	ND	ug/kg	3000				
Tetrahydrofuran	ND	ug/kg	12000				
2,2-Dichloropropane	ND	ug/kg	3000				
1,2-Dibromoethane	ND	ug/kg	2400				
1,3-Dichloropropane	ND	ug/kg	3000				
1,1,1,2-Tetrachloroethane	ND	ug/kg	600				
Bromobenzene	ND	ug/kg	3000				
n-Butylbenzene	ND	ug/kg	600				
sec-Butylbenzene	ND	ug/kg	600				
tert-Butylbenzene	ND	ug/kg	3000				
o-Chlorotoluene	ND	ug/kg	3000				
p-Chlorotoluene	ND	ug/kg	3000				
1,2-Dibromo-3-chloropropane	ND	ug/kg	3000				
Hexachlorobutadiene	ND	ug/kg	3000				
Isopropylbenzene	ND	ug/kg	600				
p-Isopropyltoluene	ND	ug/kg	600				
Naphthalene	ND	ug/kg	3000				
n-Propylbenzene	ND	ug/kg	600				
1,2,3-Trichlorobenzene	ND	ug/kg	3000				
1,2,4-Trichlorobenzene	ND	ug/kg	3000				
1,3,5-Trimethylbenzene	ND	ug/kg	3000				
1,2,4-Trimethylbenzene	ND	ug/kg	3000				
Ethyl ether	ND	ug/kg	3000				
Isopropyl Ether	ND	ug/kg	2400				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	2400				
Tertiary-Amyl Methyl Ether	ND	ug/kg	2400				
1,4-Dioxane	ND	ug/kg	300000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	112	%	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

<b>Laboratory Sample Number:</b> L0601935-03	<b>Date Collected:</b> 01-FEB-2006 12:00
	<b>Date Received :</b> 10-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 16-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	76	%	0.10	30 2540G		0213 19:50 PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0214 16:02 PD
Methylene chloride	ND	ug/kg	3200			
1,1-Dichloroethane	ND	ug/kg	480			
Chloroform	ND	ug/kg	480			
Carbon tetrachloride	ND	ug/kg	320			
1,2-Dichloropropane	ND	ug/kg	1100			
Dibromochloromethane	ND	ug/kg	320			
1,1,2-Trichloroethane	ND	ug/kg	480			
Tetrachloroethene	1800	ug/kg	320			
Chlorobenzene	ND	ug/kg	320			
Trichlorofluoromethane	ND	ug/kg	1600			
1,2-Dichloroethane	ND	ug/kg	320			
1,1,1-Trichloroethane	ND	ug/kg	320			
Bromodichloromethane	ND	ug/kg	320			
trans-1,3-Dichloropropene	ND	ug/kg	320			
cis-1,3-Dichloropropene	ND	ug/kg	320			
1,1-Dichloropropene	ND	ug/kg	1600			
Bromoform	ND	ug/kg	1300			
1,1,2,2-Tetrachloroethane	ND	ug/kg	320			
Benzene	ND	ug/kg	320			
Toluene	ND	ug/kg	480			
Ethylbenzene	ND	ug/kg	320			
Chloromethane	ND	ug/kg	1600			
Bromomethane	ND	ug/kg	650			
Vinyl chloride	ND	ug/kg	650			
Chloroethane	ND	ug/kg	650			
1,1-Dichloroethene	ND	ug/kg	320			
trans-1,2-Dichloroethene	ND	ug/kg	480			
Trichloroethene	26000	ug/kg	320			
1,2-Dichlorobenzene	ND	ug/kg	1600			
1,3-Dichlorobenzene	ND	ug/kg	1600			
1,4-Dichlorobenzene	ND	ug/kg	1600			
Methyl tert butyl ether	ND	ug/kg	650			
p/m-Xylene	ND	ug/kg	650			
o-Xylene	ND	ug/kg	650			
cis-1,2-Dichloroethene	1700	ug/kg	320			
Dibromomethane	ND	ug/kg	3200			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601935-03  
 B-522-10-15-1.75-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0214 16:02 PD	
1,2,3-Trichloropropane	ND	ug/kg	3200				
Styrene	ND	ug/kg	650				
Dichlorodifluoromethane	ND	ug/kg	3200				
Acetone	ND	ug/kg	3200				
Carbon disulfide	ND	ug/kg	3200				
2-Butanone	ND	ug/kg	3200				
4-Methyl-2-pentanone	ND	ug/kg	3200				
2-Hexanone	ND	ug/kg	3200				
Bromochloromethane	ND	ug/kg	1600				
Tetrahydrofuran	ND	ug/kg	6500				
2,2-Dichloropropane	ND	ug/kg	1600				
1,2-Dibromoethane	ND	ug/kg	1300				
1,3-Dichloropropane	ND	ug/kg	1600				
1,1,1,2-Tetrachloroethane	ND	ug/kg	320				
Bromobenzene	ND	ug/kg	1600				
n-Butylbenzene	ND	ug/kg	320				
sec-Butylbenzene	ND	ug/kg	320				
tert-Butylbenzene	ND	ug/kg	1600				
o-Chlorotoluene	ND	ug/kg	1600				
p-Chlorotoluene	ND	ug/kg	1600				
1,2-Dibromo-3-chloropropane	ND	ug/kg	1600				
Hexachlorobutadiene	ND	ug/kg	1600				
Isopropylbenzene	ND	ug/kg	320				
p-Isopropyltoluene	ND	ug/kg	320				
Naphthalene	ND	ug/kg	1600				
n-Propylbenzene	ND	ug/kg	320				
1,2,3-Trichlorobenzene	ND	ug/kg	1600				
1,2,4-Trichlorobenzene	ND	ug/kg	1600				
1,3,5-Trimethylbenzene	ND	ug/kg	1600				
1,2,4-Trimethylbenzene	ND	ug/kg	1600				
Ethyl ether	ND	ug/kg	1600				
Isopropyl Ether	ND	ug/kg	1300				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	1300				
Tertiary-Amyl Methyl Ether	ND	ug/kg	1300				
1,4-Dioxane	ND	ug/kg	160000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	107	%	70-130				
Toluene-d8	102	%	70-130				
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	109	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0601935

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Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-03 (L0601884-01, WG229499-1)					
Solids, Total	91	91	%	0	

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**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0601935

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 01 (WG229700-1, WG229700-2)					
Methylene chloride	86	86	0	25	70-130
1,1-Dichloroethane	105	101	4	25	70-130
Chloroform	105	101	4	25	70-130
Carbon tetrachloride	122	116	5	25	70-130
1,2-Dichloropropane	107	105	2	25	70-130
Dibromochloromethane	109	110	1	25	70-130
1,1,2-Trichloroethane	109	111	2	25	70-130
Tetrachloroethene	106	100	6	25	70-130
Chlorobenzene	107	105	2	25	70-130
Trichlorofluoromethane	111	106	5	25	70-130
1,2-Dichloroethane	108	106	2	25	70-130
1,1,1-Trichloroethane	110	106	4	25	70-130
Bromodichloromethane	115	112	3	25	70-130
trans-1,3-Dichloropropene	98	99	1	25	70-130
cis-1,3-Dichloropropene	102	100	2	25	70-130
1,1-Dichloropropene	103	98	5	25	70-130
Bromoform	115	118	3	50	70-130
1,1,2,2-Tetrachloroethane	98	98	0	25	70-130
Benzene	101	98	3	25	70-130
Toluene	102	102	0	25	70-130
Ethylbenzene	109	107	2	25	70-130
Chloromethane	87	79	10	50	70-130
Bromomethane	112	115	3	50	70-130
Vinyl chloride	102	90	13	25	70-130
Chloroethane	114	108	5	25	70-130
1,1-Dichloroethene	97	94	3	25	70-130
trans-1,2-Dichloroethene	99	96	3	25	70-130
Trichloroethene	106	101	5	25	70-130
1,2-Dichlorobenzene	103	101	2	25	70-130
1,3-Dichlorobenzene	103	101	2	25	70-130
1,4-Dichlorobenzene	107	107	0	25	70-130
Methyl tert butyl ether	91	92	1	25	70-130
p/m-Xylene	110	111	1	25	70-130
o-Xylene	108	109	1	25	70-130
cis-1,2-Dichloroethene	103	103	0	25	70-130
Dibromomethane	112	109	3	25	70-130
1,2,3-Trichloropropane	109	110	1	25	70-130
Styrene	115	114	1	25	70-130
Dichlorodifluoromethane	74	72	3	50	70-130
Acetone	91	93	2	50	70-130
Carbon disulfide	91	88	3	25	70-130
2-Butanone	90	88	2	50	70-130
4-Methyl-2-pentanone	94	98	4	50	70-130
2-Hexanone	88	92	4	50	70-130
Bromochloromethane	105	102	3	25	70-130
Tetrahydrofuran	75	76	1	25	70-130
2,2-Dichloropropane	106	103	3	50	70-130
1,2-Dibromoethane	105	106	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601935

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 01 (WG229700-1, WG229700-2)					
1,3-Dichloropropane	106	107	1	25	70-130
1,1,1,2-Tetrachloroethane	117	116	1	25	70-130
Bromobenzene	108	104	4	25	70-130
n-Butylbenzene	86	96	11	25	70-130
sec-Butylbenzene	98	99	1	25	70-130
tert-Butylbenzene	102	102	0	25	70-130
o-Chlorotoluene	108	107	1	25	70-130
p-Chlorotoluene	104	101	3	25	70-130
1,2-Dibromo-3-chloropropane	98	100	2	50	70-130
Hexachlorobutadiene	102	99	3	25	70-130
Isopropylbenzene	120	120	0	25	70-130
p-Isopropyltoluene	97	106	9	25	70-130
Naphthalene	83	102	21	25	70-130
n-Propylbenzene	105	104	1	25	70-130
1,2,3-Trichlorobenzene	92	97	5	25	70-130
1,2,4-Trichlorobenzene	90	95	5	25	70-130
1,3,5-Trimethylbenzene	95	111	16	25	70-130
1,2,4-Trimethylbenzene	90	113	23	25	70-130
Ethyl ether	100	99	1	25	70-130
Isopropyl Ether	88	86	2	25	70-130
Ethyl-Tert-Butyl-Ether	90	91	1	25	70-130
Tertiary-Amyl Methyl Ether	86	88	2	25	70-130
1,4-Dioxane	102	104	2	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	106	105	1		70-130
Toluene-d8	101	102	1		70-130
4-Bromofluorobenzene	98	95	3		70-130
Dibromofluoromethane	108	105	3		70-130
Volatile Organics by MCP 8260B/5035-High for sample(s) 02-03 (WG229699-1, WG229699-2)					
Methylene chloride	86	86	0	25	70-130
1,1-Dichloroethane	105	101	4	25	70-130
Chloroform	105	101	4	25	70-130
Carbon tetrachloride	122	116	5	25	70-130
1,2-Dichloropropane	107	105	2	25	70-130
Dibromochloromethane	109	110	1	25	70-130
1,1,2-Trichloroethane	109	111	2	25	70-130
Tetrachloroethene	106	100	6	25	70-130
Chlorobenzene	107	105	2	25	70-130
Trichlorofluoromethane	111	106	5	25	70-130
1,2-Dichloroethane	108	106	2	25	70-130
1,1,1-Trichloroethane	110	106	4	25	70-130
Bromodichloromethane	115	112	3	25	70-130
trans-1,3-Dichloropropene	98	99	1	25	70-130
cis-1,3-Dichloropropene	102	100	2	25	70-130
1,1-Dichloropropene	103	98	5	25	70-130



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601935

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 02-03 (WG229699-1, WG229699-2)					
Bromoform	115	118	3	50	70-130
1,1,2,2-Tetrachloroethane	98	98	0	25	70-130
Benzene	101	98	3	25	70-130
Toluene	102	102	0	25	70-130
Ethylbenzene	109	107	2	25	70-130
Chloromethane	87	79	10	50	70-130
Bromomethane	112	115	3	50	70-130
Vinyl chloride	102	90	13	25	70-130
Chloroethane	114	108	5	25	70-130
1,1-Dichloroethene	97	94	3	25	70-130
trans-1,2-Dichloroethene	99	96	3	25	70-130
Trichloroethene	106	101	5	25	70-130
1,2-Dichlorobenzene	103	101	2	25	70-130
1,3-Dichlorobenzene	103	101	2	25	70-130
1,4-Dichlorobenzene	107	107	0	25	70-130
Methyl tert butyl ether	91	92	1	25	70-130
p/m-Xylene	110	111	1	25	70-130
o-Xylene	108	109	1	25	70-130
cis-1,2-Dichloroethene	103	103	0	25	70-130
Dibromomethane	112	109	3	25	70-130
1,2,3-Trichloropropane	109	110	1	25	70-130
Styrene	115	114	1	25	70-130
Dichlorodifluoromethane	74	72	3	50	70-130
Acetone	91	93	2	50	70-130
Carbon disulfide	91	88	3	25	70-130
2-Butanone	90	88	2	50	70-130
4-Methyl-2-pentanone	94	98	4	50	70-130
2-Hexanone	88	92	4	50	70-130
Bromochloromethane	105	102	3	25	70-130
Tetrahydrofuran	75	76	1	25	70-130
2,2-Dichloropropane	106	103	3	50	70-130
1,2-Dibromoethane	105	106	1	25	70-130
1,3-Dichloropropane	106	107	1	25	70-130
1,1,1,2-Tetrachloroethane	117	116	1	25	70-130
Bromobenzene	108	104	4	25	70-130
n-Butylbenzene	86	96	11	25	70-130
sec-Butylbenzene	98	99	1	25	70-130
tert-Butylbenzene	102	102	0	25	70-130
o-Chlorotoluene	108	107	1	25	70-130
p-Chlorotoluene	104	101	3	25	70-130
1,2-Dibromo-3-chloropropane	98	100	2	50	70-130
Hexachlorobutadiene	102	99	3	25	70-130
Isopropylbenzene	120	120	0	25	70-130
p-Isopropyltoluene	97	106	9	25	70-130
Naphthalene	83	102	21	25	70-130
n-Propylbenzene	105	104	1	25	70-130
1,2,3-Trichlorobenzene	92	97	5	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601935

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 02-03 (WG229699-1, WG229699-2)					
1,2,4-Trichlorobenzene	90	95	5	25	70-130
1,3,5-Trimethylbenzene	95	111	16	25	70-130
1,2,4-Trimethylbenzene	90	113	23	25	70-130
Ethyl ether	100	99	1	25	70-130
Isopropyl Ether	88	86	2	25	70-130
Ethyl-Tert-Butyl-Ether	90	91	1	25	70-130
Tertiary-Amyl Methyl Ether	86	88	2	25	70-130
1,4-Dioxane	102	104	2	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	106	105	1		70-130
Toluene-d8	101	102	1		70-130
4-Bromofluorobenzene	98	95	3		70-130
Dibromofluoromethane	108	105	3		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601935

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG229700-3)							
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0214 10:43 PD		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601935

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG229700-3)							
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0214 10:43 PD		
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	117	%	70-130				
Toluene-d8	101	%	70-130				
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	110	%	70-130				
Blank Analysis for sample(s) 02-03 (WG229699-3)							
Volatile Organics by MCP 8260B/5035-High				60 8260B	0214 10:43 PD		
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601935

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02-03 (WG229699-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0214 10:43	PD
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601935

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02-03 (WG229699-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0214 10:43 PD	
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	117	%	70-130				
Toluene-d8	101	%	70-130				
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	110	%	70-130				

**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0601935

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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
L0601935-01A	Vial MeOH preserved	A	N/A	4.1C	Y	Absent	MCP-8260LG-04
L0601935-01B	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260LG-04
L0601935-01C	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260LG-04
L0601935-01D	Plastic 2oz unpreserved for TS	A	N/A	4.1C	Y	Absent	TS
L0601935-02A	Vial MeOH preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-02B	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-02C	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-02D	Plastic 2oz unpreserved for TS	A	N/A	4.1C	Y	Absent	TS
L0601935-03A	Vial MeOH preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-03B	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-03C	Vial NaHSO4 preserved	A	N/A	4.1C	Y	Absent	MCP-8260H-04
L0601935-03D	Plastic 2oz unpreserved for TS	A	N/A	4.1C	Y	Absent	TS

**Container Comments**

Container ID    Comments

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ALPHA ANALYTICAL LABORATORIES

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(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: L0601593  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 03-FEB-2006  
Attn: Jeremy Picard Date Reported: 10-FEB-2006  
Project Number: 0043036 Delivery Method: Alpha  
Site: RAYTHEON-WAYLAND

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? YES

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:   
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0601593

Date Reported: 10-FEB-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0601593-01	B-529-20060131-01	WAYLAND, MA
L0601593-02	B-522-10-15-01	WAYLAND, MA
L0601593-03	COMP-20060201-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0601593

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MCP Related Narratives

EPH by method EPH-04-1

Extraction method:

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the method.

SemiVolatile Organics by method 8270C

Extraction method: 3540C

In reference to question E:

The LCS/LCSD % recoveries for Aniline, 4-Chloroaniline, and 3,3'-Dichlorobenzidine are below the acceptance criteria for the method.

The LCSD % recovery for 2,6-Dinitrotoluene is above the acceptance criteria for the method.

The LCS/LCSD RPDs for the following are above the acceptance criteria for the method: 1,2,4-Trichlorobenzene, Bis(2-chloroisopropyl)ether, Bis(2-chloroethoxy)methane, Hexachlorobutadiene, Hexachloroethane, Naphthalene, 2-Chlorophenol, 2,4-Dichlorophenol, 2-Nitrophenol, Phenol, and 3-Methylphenol/4-Methylphenol.

PCB by method 8082

Extraction method: 3540C

Cleanup method: 3665A

Non-MCP Related Narratives

TCLP SemiVolatile Organics

The LCS and MS/MSD % recoveries for 2,4-Dinitrotoluene are above the acceptance criteria for the method.

TCLP Pesticides

The MS/MSD RPDs for the following are above the acceptance criteria for the method: Lindane, Heptachlor, Heptachlor epoxide, Endrin, and Methoxychlor.

**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:	L0601593-01	Date Collected:	31-JAN-2006 13:40
	B-529-20060131-01	Date Received :	03-FEB-2006
Sample Matrix:	SOIL	Date Reported :	10-FEB-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	2-Amber,1-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
<b>TCLP Metals</b>						
TCLP Extraction				1 1311	0206 16:30	
Arsenic, TCLP	ND	mg/l	1.0	1 6010B	0208 17:00 0209 09:33	RW
Barium, TCLP	ND	mg/l	0.50	1 6010B	0208 17:00 0209 09:33	RW
Cadmium, TCLP	ND	mg/l	0.10	1 6010B	0208 17:00 0209 09:33	RW
Chromium, TCLP	ND	mg/l	0.20	1 6010B	0208 17:00 0209 09:33	RW
Lead, TCLP	ND	mg/l	0.50	1 6010B	0208 17:00 0209 09:33	RW
Mercury, TCLP	ND	mg/l	0.0010	1 7470A	0207 16:30 0208 10:22	DM
Selenium, TCLP	ND	mg/l	0.50	1 6010B	0208 17:00 0209 09:33	RW
Silver, TCLP	ND	mg/l	0.10	1 6010B	0208 17:00 0209 09:33	RW
<b>TCLP Semi-Volatile Organics</b>						
TCLP Extraction				1 8270C	0209 13:15 0210 06:24	RL
TCLP Extraction				1 1311	0206 16:30	
Hexachlorobenzene	ND	ug/l	25.			
2,4-Dinitrotoluene	ND	ug/l	30.			
Hexachlorobutadiene	ND	ug/l	50.			
Hexachloroethane	ND	ug/l	25.			
Nitrobenzene	ND	ug/l	25.			
2,4,6-Trichlorophenol	ND	ug/l	25.			
Pentachlorophenol	ND	ug/l	100			
2-Methylphenol	ND	ug/l	30.			
3-Methylphenol/4-Methylphenol	ND	ug/l	30.			
2,4,5-Trichlorophenol	28.	ug/l	25.			
Pyridine	ND	ug/l	250			
Surrogate(s)	Recovery			QC Criteria		
2-Fluorophenol	68.0	%		21-120		
Phenol-d6	86.0	%		10-120		
Nitrobenzene-d5	87.0	%		23-120		
2-Fluorobiphenyl	68.0	%		43-120		
2,4,6-Tribromophenol	78.0	%		10-120		
4-Terphenyl-d14	86.0	%		33-120		
<b>TCLP Pesticides by GC</b>						
TCLP Extraction				1 8082/8081	0209 13:30 0210 12:02	JB
TCLP Extraction				1 1311	0206 16:30	
Lindane	ND	ug/l	0.100			
Heptachlor	ND	ug/l	0.100			
Heptachlor epoxide	ND	ug/l	0.100			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-01  
 B-529-20060131-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0209 13:30	0210 12:02 JB
TCLP Extraction				1	1311	0206 16:30	
Endrin	ND	ug/l	0.200				
Methoxychlor	ND	ug/l	1.00				
Toxaphene	ND	ug/l	1.00				
Chlordane	ND	ug/l	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	51.0	%	30-150				
Decachlorobiphenyl	85.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0209 11:15	0210 12:40 JB
TCLP Extraction				1	1311	0206 16:30	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	70.0	%					
TCLP Volatile Organics				1	8260B		0208 15:04 PD
TCLP Extraction				1	1311	0207 13:45	
Chloroform	ND	ug/l	7.5				
Carbon tetrachloride	ND	ug/l	5.0				
Tetrachloroethene	82.	ug/l	5.0				
Chlorobenzene	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	5.0				
Benzene	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	10.				
1,1-Dichloroethene	ND	ug/l	5.0				
Trichloroethene	260	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	25.				
2-Butanone	ND	ug/l	50.				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	90.0	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	95.0	%	70-130				
Dibromofluoromethane	97.0	%	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

<b>Laboratory Sample Number:</b> L0601593-02		<b>Date Collected:</b> 01-FEB-2006 12:30
	B-522-10-15-01	<b>Date Received :</b> 03-FEB-2006
<b>Sample Matrix:</b>	SOIL	<b>Date Reported :</b> 10-FEB-2006
<b>Condition of Sample:</b>	Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 2-Amber		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	76.	%	0.10	30 2540G		0206 20:45	HS
Total Metals by MCP 6000/7000 series				60 6010B			
Antimony, Total	ND	mg/kg	2.6	60 6010B	0208 17:00	0209 10:25	RW
Arsenic, Total	4.9	mg/kg	0.52	60 6010B	0208 17:00	0209 10:25	RW
Beryllium, Total	ND	mg/kg	0.26	60 6010B	0208 17:00	0209 10:25	RW
Cadmium, Total	ND	mg/kg	0.52	60 6010B	0208 17:00	0209 10:25	RW
Chromium, Total	17.	mg/kg	0.52	60 6010B	0208 17:00	0209 10:25	RW
Copper, Total	16.	mg/kg	0.52	60 6010B	0208 17:00	0209 10:25	RW
Lead, Total	5.5	mg/kg	2.6	60 6010B	0208 17:00	0209 10:25	RW
Mercury, Total	ND	mg/kg	0.10	64 7471A	0207 21:00	0208 15:59	DM
Nickel, Total	16.	mg/kg	1.3	60 6010B	0208 17:00	0209 10:25	RW
Selenium, Total	ND	mg/kg	2.6	60 6010B	0208 17:00	0209 10:25	RW
Silver, Total	ND	mg/kg	0.52	60 6010B	0208 17:00	0209 10:25	RW
Thallium, Total	ND	mg/kg	2.6	60 6010B	0208 17:00	0209 10:25	RW
Zinc, Total	32.	mg/kg	2.6	60 6010B	0208 17:00	0209 10:25	RW
Semivolatile Organics by MCP 8270C				64 8270C	0206 14:45	0208 21:14	RL
Acenaphthene	ND	ug/kg	440				
1,2,4-Trichlorobenzene	ND	ug/kg	440				
Hexachlorobenzene	ND	ug/kg	440				
Bis(2-chloroethyl)ether	ND	ug/kg	440				
2-Chloronaphthalene	ND	ug/kg	440				
1,2-Dichlorobenzene	ND	ug/kg	440				
1,3-Dichlorobenzene	ND	ug/kg	440				
1,4-Dichlorobenzene	ND	ug/kg	440				
3,3'-Dichlorobenzidine	ND	ug/kg	880				
2,4-Dinitrotoluene	ND	ug/kg	440				
2,6-Dinitrotoluene	ND	ug/kg	440				
Azobenzene	ND	ug/kg	440				
Fluoranthene	ND	ug/kg	440				
4-Bromophenyl phenyl ether	ND	ug/kg	440				
Bis(2-chloroisopropyl)ether	ND	ug/kg	440				
Bis(2-chloroethoxy)methane	ND	ug/kg	440				
Hexachlorobutadiene	ND	ug/kg	880				
Hexachloroethane	ND	ug/kg	440				
Isophorone	ND	ug/kg	440				
Naphthalene	ND	ug/kg	440				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-02  
B-522-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Semivolatile Organics by MCP 8270C cont'd				64 8270C	0206 14:45	0208 21:14	RL
Nitrobenzene	ND	ug/kg	440				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	880				
Butyl benzyl phthalate	ND	ug/kg	440				
Di-n-butylphthalate	ND	ug/kg	440				
Di-n-octylphthalate	ND	ug/kg	440				
Diethyl phthalate	ND	ug/kg	440				
Dimethyl phthalate	ND	ug/kg	440				
Benzo(a)anthracene	ND	ug/kg	440				
Benzo(a)pyrene	ND	ug/kg	440				
Benzo(b)fluoranthene	ND	ug/kg	440				
Benzo(k)fluoranthene	ND	ug/kg	440				
Chrysene	ND	ug/kg	440				
Acenaphthylene	ND	ug/kg	440				
Anthracene	ND	ug/kg	440				
Benzo(ghi)perylene	ND	ug/kg	440				
Fluorene	ND	ug/kg	440				
Phenanthrene	ND	ug/kg	440				
Dibenzo(a,h)anthracene	ND	ug/kg	440				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	440				
Pyrene	ND	ug/kg	440				
Aniline	ND	ug/kg	880				
4-Chloroaniline	ND	ug/kg	440				
Dibenzofuran	ND	ug/kg	440				
2-Methylnaphthalene	ND	ug/kg	440				
Acetophenone	ND	ug/kg	1800				
2,4,6-Trichlorophenol	ND	ug/kg	440				
2-Chlorophenol	ND	ug/kg	530				
2,4-Dichlorophenol	ND	ug/kg	880				
2,4-Dimethylphenol	ND	ug/kg	440				
2-Nitrophenol	ND	ug/kg	1800				
4-Nitrophenol	ND	ug/kg	880				
2,4-Dinitrophenol	ND	ug/kg	1800				
Pentachlorophenol	ND	ug/kg	1800				
Phenol	ND	ug/kg	610				
2-Methylphenol	ND	ug/kg	530				
3-Methylphenol/4-Methylphenol	ND	ug/kg	530				
2,4,5-Trichlorophenol	ND	ug/kg	440				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	60.0	%	30-130				
Phenol-d6	80.0	%	30-130				
Nitrobenzene-d5	73.0	%	30-130				
2-Fluorobiphenyl	55.0	%	30-130				
2,4,6-Tribromophenol	73.0	%	30-130				
4-Terphenyl-d14	84.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 19:15	AK
Aroclor 1221	ND	ug/kg	43.8				
Aroclor 1232	ND	ug/kg	43.8				

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



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-02  
B-522-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Polychlorinated Biphenyls by MCP 8082 cont'd				64 8082	0206 16:10	0208 19:15	AK
Aroclor 1242/1016	ND	ug/kg	43.8				
Aroclor 1248	ND	ug/kg	43.8				
Aroclor 1254	ND	ug/kg	43.8				
Aroclor 1260	ND	ug/kg	43.8				
Aroclor 1262	ND	ug/kg	43.8				
Aroclor 1268	ND	ug/kg	43.8				
Surrogate(s)	Recovery			QC Criteria			
2,4,5,6-Tetrachloro-m-xylene	76.0	%		30-150			
Decachlorobiphenyl	84.0	%		30-150			
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 19:15	AK
Surrogate(s)	Recovery			QC Criteria			
2,4,5,6-Tetrachloro-m-xylene	79.0	%		30-150			
Decachlorobiphenyl	102.	%		30-150			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-02  
B-522-10-15-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
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Extractable Petroleum Hydrocarbons				61 EPH-04-1	0206 20:35 0209 14:16 BN	
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Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.	
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.	

C9-C18 Aliphatics	ND	mg/kg	8.77
C19-C36 Aliphatics	ND	mg/kg	8.77
C11-C22 Aromatics, Unadjusted	ND	mg/kg	8.77
C11-C22 Aromatics, Adjusted	ND	mg/kg	8.77

Surrogate(s)	Recovery	QC Criteria
Chloro-Octadecane	45.0 %	40-140
o-Terphenyl	65.0 %	40-140
2-Fluorobiphenyl	67.0 %	40-140
2-Bromonaphthalene	67.0 %	40-140

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-03  
 COMP-20060201-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Semivolatile Organics by MCP 8270C cont'd				64 8270C	0206 14:45	0208 21:39	RL
Nitrobenzene	ND	ug/kg	430				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	860				
Butyl benzyl phthalate	ND	ug/kg	430				
Di-n-butylphthalate	ND	ug/kg	430				
Di-n-octylphthalate	ND	ug/kg	430				
Diethyl phthalate	ND	ug/kg	430				
Dimethyl phthalate	ND	ug/kg	430				
Benzo(a)anthracene	ND	ug/kg	430				
Benzo(a)pyrene	ND	ug/kg	430				
Benzo(b)fluoranthene	ND	ug/kg	430				
Benzo(k)fluoranthene	ND	ug/kg	430				
Chrysene	ND	ug/kg	430				
Acenaphthylene	ND	ug/kg	430				
Anthracene	ND	ug/kg	430				
Benzo(ghi)perylene	ND	ug/kg	430				
Fluorene	ND	ug/kg	430				
Phenanthrene	ND	ug/kg	430				
Dibenzo(a,h)anthracene	ND	ug/kg	430				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	430				
Pyrene	ND	ug/kg	430				
Aniline	ND	ug/kg	860				
4-Chloroaniline	ND	ug/kg	430				
Dibenzofuran	ND	ug/kg	430				
2-Methylnaphthalene	ND	ug/kg	430				
Acetophenone	ND	ug/kg	1700				
2,4,6-Trichlorophenol	ND	ug/kg	430				
2-Chlorophenol	ND	ug/kg	520				
2,4-Dichlorophenol	ND	ug/kg	860				
2,4-Dimethylphenol	ND	ug/kg	430				
2-Nitrophenol	ND	ug/kg	1700				
4-Nitrophenol	ND	ug/kg	860				
2,4-Dinitrophenol	ND	ug/kg	1700				
Pentachlorophenol	ND	ug/kg	1700				
Phenol	ND	ug/kg	610				
2-Methylphenol	ND	ug/kg	520				
3-Methylphenol/4-Methylphenol	ND	ug/kg	520				
2,4,5-Trichlorophenol	ND	ug/kg	430				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	55.0	%	30-130				
Phenol-d6	77.0	%	30-130				
Nitrobenzene-d5	68.0	%	30-130				
2-Fluorobiphenyl	55.0	%	30-130				
2,4,6-Tribromophenol	77.0	%	30-130				
4-Terphenyl-d14	93.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 19:43	AK
Aroclor 1221	ND	ug/kg	43.3				
Aroclor 1232	ND	ug/kg	43.3				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-03  
COMP-20060201-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Polychlorinated Biphenyls by MCP 8082 cont'd				64 8082	0206 16:10	0208 19:43	AK
Aroclor 1242/1016	ND	ug/kg	43.3				
Aroclor 1248	ND	ug/kg	43.3				
Aroclor 1254	ND	ug/kg	43.3				
Aroclor 1260	ND	ug/kg	43.3				
Aroclor 1262	ND	ug/kg	43.3				
Aroclor 1268	ND	ug/kg	43.3				
Surrogate(s)	Recovery			QC Criteria			
2,4,5,6-Tetrachloro-m-xylene	47.0	%		30-150			
Decachlorobiphenyl	72.0	%		30-150			
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 19:43	AK
Surrogate(s)	Recovery			QC Criteria			
2,4,5,6-Tetrachloro-m-xylene	45.0	%		30-150			
Decachlorobiphenyl	85.0	%		30-150			

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601593-03  
COMP-20060201-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
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Extractable Petroleum Hydrocarbons				61 EPH-04-1	0206 20:35 0209 10:32 BN	
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Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.	
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.	

C9-C18 Aliphatics	ND	mg/kg	8.66
C19-C36 Aliphatics	ND	mg/kg	8.66
C11-C22 Aromatics, Unadjusted	ND	mg/kg	8.66
C11-C22 Aromatics, Adjusted	ND	mg/kg	8.66

Surrogate(s)	Recovery	QC Criteria
Chloro-Octadecane	52.0 %	40-140
o-Terphenyl	72.0 %	40-140
2-Fluorobiphenyl	79.0 %	40-140
2-Bromonaphthalene	80.0 %	40-140

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0601593

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 02-03 (L0601426-01, WG228827-1)					
Solids, Total	92.	92.	%	0	
TCLP Metals for sample(s) 01 (L0601477-01, WG229047-1)					
Arsenic, TCLP	ND	ND	mg/l	NC	
Barium, TCLP	ND	ND	mg/l	NC	
Cadmium, TCLP	ND	ND	mg/l	NC	
Chromium, TCLP	ND	ND	mg/l	NC	
Lead, TCLP	ND	ND	mg/l	NC	
Selenium, TCLP	ND	ND	mg/l	NC	
Silver, TCLP	ND	ND	mg/l	NC	
TCLP Metals for sample(s) 01 (L0601477-01, WG228931-3)					
Mercury, TCLP	ND	ND	mg/l	NC	

**ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH SPIKE ANALYSES**

Laboratory Job Number: L0601593

Parameter	% Recovery	QC Criteria
TCLP Metals LCS for sample(s) 01 (WG229047-4)		
Arsenic, TCLP	96	
Barium, TCLP	87	
Cadmium, TCLP	95	
Chromium, TCLP	92	
Lead, TCLP	95	
Selenium, TCLP	95	
Silver, TCLP	91	
TCLP Metals LCS for sample(s) 01 (WG228931-1)		
Mercury, TCLP	100	
TCLP Semi-Volatile Organics LCS for sample(s) 01 (WG229162-2)		
Hexachlorobenzene	80	
2,4-Dinitrotoluene	103	24-96
Hexachlorobutadiene	63	
Hexachloroethane	56	
Nitrobenzene	82	
2,4,6-Trichlorophenol	84	
Pentachlorophenol	90	9-103
2-Methylphenol	68	
3-Methylphenol/4-Methylphenol	67	
2,4,5-Trichlorophenol	82	
Pyridine	20	
Surrogate(s)		
2-Fluorophenol	62	21-120
Phenol-d6	79	10-120
Nitrobenzene-d5	77	23-120
2-Fluorobiphenyl	71	43-120
2,4,6-Tribromophenol	86	10-120
4-Terphenyl-d14	91	33-120
TCLP Pesticides by GC LCS for sample(s) 01 (WG229161-2)		
Lindane	52	30-150
Heptachlor	44	30-150
Heptachlor epoxide	53	30-150
Endrin	64	30-150
Methoxychlor	71	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	44	30-150
Decachlorobiphenyl	69	30-150
TCLP Herbicides by GC LCS for sample(s) 01 (WG229147-2)		
2,4-D	105	
2,4,5-TP (Silvex)	76	



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0601593

Continued

Parameter	% Recovery	QC Criteria
TCLP Herbicides by GC LCS for sample(s) 01 (WG229147-2)		
Surrogate(s)		
DCAA	72	
TCLP Volatile Organics LCS for sample(s) 01 (WG229023-3)		
Chlorobenzene	113	75-130
Benzene	105	76-127
Toluene	109	76-125
1,1-Dichloroethene	98	61-145
Trichloroethene	101	71-120
Surrogate(s)		
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130
Dibromofluoromethane	97	70-130
TCLP Metals SPIKE for sample(s) 01 (L0601477-01, WG229047-2)		
Arsenic, TCLP	97	
Barium, TCLP	89	
Cadmium, TCLP	97	
Chromium, TCLP	94	
Lead, TCLP	96	
Selenium, TCLP	100	
Silver, TCLP	87	
TCLP Metals SPIKE for sample(s) 01 (L0601477-01, WG228931-2)		
Mercury, TCLP	124	

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0601593

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Total Metals by MCP 6000/7000 series for sample(s) 02-03 (WG229080-2, WG229080-3)					
Antimony, Total	91	86	6	30	75-125
Arsenic, Total	99	99	0	30	75-125
Beryllium, Total	91	91	0	30	75-125
Cadmium, Total	99	99	0	30	75-125
Chromium, Total	91	91	0	30	75-125
Copper, Total	87	86	1	30	75-125
Lead, Total	99	99	0	30	75-125
Nickel, Total	91	91	0	30	75-125
Selenium, Total	97	95	2	30	75-125
Silver, Total	93	84	10	30	75-125
Thallium, Total	105	103	2	30	75-125
Zinc, Total	91	91	0	30	75-125
Total Metals by MCP 6000/7000 series for sample(s) 02-03 (WG228959-2, WG228959-3)					
Mercury, Total	104	101	3	30	75-125
Semivolatile Organics by MCP 8270C for sample(s) 02-03 (WG228785-2, WG228785-3)					
Acenaphthene	60	70	15	30	40-140
1,2,4-Trichlorobenzene	47	65	32	30	40-140
Hexachlorobenzene	84	89	6	30	40-140
Bis(2-chloroethyl)ether	54	73	30	30	40-140
2-Chloronaphthalene	59	78	28	30	40-140
1,2-Dichlorobenzene	51	68	29	30	40-140
1,3-Dichlorobenzene	47	63	29	30	40-140
1,4-Dichlorobenzene	48	65	30	30	40-140
3,3'-Dichlorobenzidine	26	26	0	30	40-140
2,4-Dinitrotoluene	128	137	7	30	40-140
2,6-Dinitrotoluene	131	142	8	30	40-140
Azobenzene	82	86	5	30	40-140
Fluoranthene	98	100	2	30	40-140
4-Bromophenyl phenyl ether	85	90	6	30	40-140
Bis(2-chloroisopropyl)ether	52	73	34	30	40-140
Bis(2-chloroethoxy)methane	56	78	33	30	40-140
Hexachlorobutadiene	47	65	32	30	40-140
Hexachloroethane	48	67	33	30	40-140
Isophorone	62	84	30	30	40-140
Naphthalene	49	68	32	30	40-140
Nitrobenzene	56	75	29	30	40-140
Bis(2-Ethylhexyl)phthalate	109	109	0	30	40-140
Butyl benzyl phthalate	104	107	3	30	40-140
Di-n-butylphthalate	106	109	3	30	40-140
Di-n-octylphthalate	111	114	3	30	40-140
Diethyl phthalate	94	99	5	30	40-140
Dimethyl phthalate	85	89	5	30	40-140
Benzo(a)anthracene	99	100	1	30	40-140
Benzo(a)pyrene	90	91	1	30	40-140
Benzo(b)fluoranthene	102	103	1	30	40-140
Benzo(k)fluoranthene	98	98	0	30	40-140

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601593

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Semivolatile Organics by MCP 8270C for sample(s) 02-03 (WG228785-2, WG228785-3)					
Chrysene	88	89	1	30	40-140
Acenaphthylene	68	78	14	30	40-140
Anthracene	81	84	4	30	40-140
Benzo(ghi)perylene	85	87	2	30	40-140
Fluorene	78	83	6	30	40-140
Phenanthrene	79	83	5	30	40-140
Dibenzo(a,h)anthracene	89	90	1	30	40-140
Indeno(1,2,3-cd)Pyrene	91	92	1	30	40-140
Pyrene	92	94	2	30	40-140
Aniline	15	19	24	30	40-140
4-Chloroaniline	22	28	24	30	40-140
Dibenzofuran	70	79	12	30	40-140
2-Methylnaphthalene	53	72	30	30	40-140
Acetophenone	56	76	30	30	40-140
2,4,6-Trichlorophenol	84	93	10	30	30-130
2-Chlorophenol	54	75	33	30	30-130
2,4-Dichlorophenol	59	81	31	30	30-130
2,4-Dimethylphenol	49	44	11	30	30-130
2-Nitrophenol	62	88	35	30	30-130
4-Nitrophenol	90	103	13	30	30-130
2,4-Dinitrophenol	86	100	15	30	30-130
Pentachlorophenol	89	91	2	30	30-130
Phenol	57	78	31	30	30-130
2-Methylphenol	56	76	30	30	30-130
3-Methylphenol/4-Methylphenol	56	78	33	30	30-130
2,4,5-Trichlorophenol	94	99	5	30	30-130
Surrogate(s)					
2-Fluorophenol	55	71	25		30-130
Phenol-d6	70	92	27		30-130
Nitrobenzene-d5	67	89	28		30-130
2-Fluorobiphenyl	56	70	22		30-130
2,4,6-Tribromophenol	84	84	0		30-130
4-Terphenyl-d14	97	93	4		30-130
Polychlorinated Biphenyls by MCP 8082 for sample(s) 02-03 (WG228801-2, WG228801-3)					
Aroclor 1242/1016	68	70	3	30	40-140
Aroclor 1260	86	85	1	30	40-140
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	62	64	3		30-150
2,4,5,6-Tetrachloro-m-xylene	50	57	13		30-150
Decachlorobiphenyl	86	85	1		30-150
Decachlorobiphenyl	103	101	2		30-150

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601593

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Extractable Petroleum Hydrocarbons for sample(s) 02-03 (WG228835-2, WG228835-3)					
C9-C18 Aliphatics	57	61	7	25	40-140
C19-C36 Aliphatics	68	71	4	25	40-140
C11-C22 Aromatics	85	79	7	25	40-140
Naphthalene	70	70	0	25	40-140
2-Methylnaphthalene	71	70	1	25	40-140
Acenaphthylene	72	70	3	25	40-140
Acenaphthene	74	74	0	25	40-140
Fluorene	75	77	3	25	40-140
Phenanthrene	80	80	0	25	40-140
Anthracene	82	83	1	25	40-140
Fluoranthene	80	79	1	25	40-140
Pyrene	82	80	2	25	40-140
Benzo(a)anthracene	82	78	5	25	40-140
Chrysene	83	78	6	25	40-140
Benzo(b)fluoranthene	82	76	8	25	40-140
Benzo(k)fluoranthene	80	76	5	25	40-140
Benzo(a)pyrene	79	74	7	25	40-140
Indeno(1,2,3-cd)Pyrene	78	73	7	25	40-140
Dibenzo(a,h)anthracene	77	73	5	25	40-140
Benzo(ghi)perylene	81	77	5	25	40-140
Nonane (C9)	44	48	9	25	30-140
Decane (C10)	53	57	7	25	40-140
Dodecane (C12)	59	62	5	25	40-140
Tetradecane (C14)	62	65	5	25	40-140
Hexadecane (C16)	63	67	6	25	40-140
Octadecane (C18)	63	68	8	25	40-140
Nonadecane (C19)	66	70	6	25	40-140
Eicosane (C20)	67	72	7	25	40-140
Docosane (C22)	70	74	6	25	40-140
Tetracosane (C24)	70	74	6	25	40-140
Hexacosane (C26)	69	72	4	25	40-140
Octacosane (C28)	68	70	3	25	40-140
Triacosane (C30)	67	69	3	25	40-140
Hexatriacontane (C36)	69	70	1	25	40-140
Surrogate(s)					
Chloro-Octadecane	44	55	22		40-140
o-Terphenyl	84	84	0		40-140
2-Fluorobiphenyl	76	76	0		40-140
2-Bromonaphthalene	77	79	3		40-140
% Naphthalene Breakthrough	0	0	NC		
% 2-Methylnaphthalene Breakthrough	0	0	NC		

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH MS/MSD ANALYSIS**

Laboratory Job Number: L0601593

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
TCLP Semi-Volatile Organics for sample(s) 01 (L0601593-01, WG229162-4)					
Hexachlorobenzene	80	80	0	30	
2,4-Dinitrotoluene	110	110	0	30	24-96
Hexachlorobutadiene	56	60	7	30	
Hexachloroethane	52	50	4	30	
Nitrobenzene	80	80	0	30	
2,4,6-Trichlorophenol	88	88	0	30	
Pentachlorophenol	88	90	2	30	9-103
2-Methylphenol	70	70	0	30	
3-Methylphenol/4-Methylphenol	70	68	3	30	
2,4,5-Trichlorophenol	78	82	5	30	
Pyridine	79	60	27	30	
Surrogate(s)					
2-Fluorophenol	59	60	2		21-120
Phenol-d6	79	78	1		10-120
Nitrobenzene-d5	76	77	1		23-120
2-Fluorobiphenyl	71	70	1		43-120
2,4,6-Tribromophenol	82	82	0		10-120
4-Terphenyl-d14	85	86	1		33-120
TCLP Pesticides by GC for sample(s) 01 (L0601593-01, WG229161-4)					
Lindane	44	78	56	30	30-150
Heptachlor	38	68	57	30	30-150
Heptachlor epoxide	43	78	58	30	30-150
Endrin	53	96	58	30	30-150
Methoxychlor	60	113	61	30	30-150
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	36	58	47		30-150
Decachlorobiphenyl	49	82	50		30-150
TCLP Herbicides by GC for sample(s) 01 (L0601593-01, WG229147-4)					
2,4-D	110	110	0		
2,4,5-TP (Silvex)	82	80	2		
Surrogate(s)					
DCAA	81	79	3		
TCLP Volatile Organics for sample(s) 01 (L0601477-01, WG229023-2)					
Chlorobenzene	101	97	4	20	75-130
Benzene	105	101	4	20	76-127
Toluene	103	99	4	20	76-125
1,1-Dichloroethene	103	99	4	20	61-145
Trichloroethene	100	96	4	20	71-120
Surrogate(s)					
1,2-Dichloroethane-d4	91	94	3		70-130
Toluene-d8	98	100	2		70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0601593

Continued

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Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
TCLP Volatile Organics for sample(s) 01 (L0601477-01, WG229023-2)					
4-Bromofluorobenzene	97	100	3		70-130
Dibromofluoromethane	97	100	3		70-130

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**ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601593

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02-03 (WG229080-1)							
Total Metals by MCP 6000/7000 series				60	6010B		
Antimony, Total	ND	mg/kg	2.0	60	6010B	0208 17:00	0209 10:16 RW
Arsenic, Total	ND	mg/kg	0.40	60	6010B	0208 17:00	0209 10:16 RW
Beryllium, Total	ND	mg/kg	0.20	60	6010B	0208 17:00	0209 10:16 RW
Cadmium, Total	ND	mg/kg	0.40	60	6010B	0208 17:00	0209 10:16 RW
Chromium, Total	ND	mg/kg	0.40	60	6010B	0208 17:00	0209 10:16 RW
Copper, Total	ND	mg/kg	0.40	60	6010B	0208 17:00	0209 10:16 RW
Lead, Total	ND	mg/kg	2.0	60	6010B	0208 17:00	0209 10:16 RW
Nickel, Total	ND	mg/kg	1.0	60	6010B	0208 17:00	0209 10:16 RW
Selenium, Total	ND	mg/kg	2.0	60	6010B	0208 17:00	0209 10:16 RW
Silver, Total	ND	mg/kg	0.40	60	6010B	0208 17:00	0209 10:16 RW
Thallium, Total	ND	mg/kg	2.0	60	6010B	0208 17:00	0209 10:16 RW
Zinc, Total	ND	mg/kg	2.0	60	6010B	0208 17:00	0209 10:16 RW
Blank Analysis for sample(s) 02-03 (WG228959-1)							
Total Metals by MCP 6000/7000 series							
Mercury, Total	ND	mg/kg	0.08	64	7471A	0207 21:00	0208 15:24 DM
Blank Analysis for sample(s) 01 (WG229047-3)							
TCLP Metals							
TCLP Extraction				1	1311	0206 16:30	
Arsenic, TCLP	ND	mg/l	1.0	1	6010B	0208 17:00	0209 09:04 RW
Barium, TCLP	ND	mg/l	0.50	1	6010B	0208 17:00	0209 09:04 RW
Cadmium, TCLP	ND	mg/l	0.10	1	6010B	0208 17:00	0209 09:04 RW
Chromium, TCLP	ND	mg/l	0.20	1	6010B	0208 17:00	0209 09:04 RW
Lead, TCLP	ND	mg/l	0.50	1	6010B	0208 17:00	0209 09:04 RW
Selenium, TCLP	ND	mg/l	0.50	1	6010B	0208 17:00	0209 09:04 RW
Silver, TCLP	ND	mg/l	0.10	1	6010B	0208 17:00	0209 09:04 RW
Blank Analysis for sample(s) 01 (WG228931-4)							
TCLP Metals							
TCLP Extraction				1	1311	0206 16:30	
Mercury, TCLP	ND	mg/l	0.0010	1	7470A	0207 16:30	0208 10:07 DM
Blank Analysis for sample(s) 01 (WG229162-1)							
TCLP Semi-Volatile Organics				1	8270C	0209 13:15	0210 04:45 RL
TCLP Extraction				1	1311	0208 13:15	
Hexachlorobenzene	ND	ug/l	25.				
2,4-Dinitrotoluene	ND	ug/l	30.				
Hexachlorobutadiene	ND	ug/l	50.				
Hexachloroethane	ND	ug/l	25.				
Nitrobenzene	ND	ug/l	25.				
2,4,6-Trichlorophenol	ND	ug/l	25.				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601593

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG229162-1)							
TCLP Semi-Volatile Organics cont'd				1 8270C	0209 13:15	0210 04:45	RL
TCLP Extraction				1 1311	0208 13:15		
Pentachlorophenol	ND	ug/l	100				
2-Methylphenol	ND	ug/l	30.				
3-Methylphenol/4-Methylphenol	ND	ug/l	30.				
2,4,5-Trichlorophenol	ND	ug/l	25.				
Pyridine	ND	ug/l	250				
Surrogate(s)	Recovery						QC Criteria
2-Fluorophenol	70.0	%					21-120
Phenol-d6	89.0	%					10-120
Nitrobenzene-d5	89.0	%					23-120
2-Fluorobiphenyl	68.0	%					43-120
2,4,6-Tribromophenol	83.0	%					10-120
4-Terphenyl-d14	87.0	%					33-120
Blank Analysis for sample(s) 01 (WG229161-1)							
TCLP Pesticides by GC				1 8082/8081	0209 13:30	0210 10:07	JB
TCLP Extraction				1 1311	0208 09:35		
Lindane	ND	ug/l	0.100				
Heptachlor	ND	ug/l	0.100				
Heptachlor epoxide	ND	ug/l	0.100				
Endrin	ND	ug/l	0.200				
Methoxychlor	ND	ug/l	1.00				
Toxaphene	ND	ug/l	1.00				
Chlordane	ND	ug/l	1.00				
Surrogate(s)	Recovery						QC Criteria
2,4,5,6-Tetrachloro-m-xylene	57.0	%					30-150
Decachlorobiphenyl	102.	%					30-150
Blank Analysis for sample(s) 01 (WG229147-1)							
TCLP Herbicides by GC				1 8151A(M)	0209 11:15	0210 09:24	JB
TCLP Extraction				1 1311	0208 09:35		
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery						QC Criteria
DCAA	70.0	%					
Blank Analysis for sample(s) 01 (WG229023-4)							
TCLP Volatile Organics				1 8260B		0208 12:23	PD
TCLP Extraction				1 1311	0207 13:45		
Chloroform	ND	ug/l	7.5				
Carbon tetrachloride	ND	ug/l	5.0				
Tetrachloroethene	ND	ug/l	5.0				
Chlorobenzene	ND	ug/l	5.0				



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601593

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG229023-4)							
TCLP Volatile Organics cont'd				1 8260B		0208 12:23	PD
TCLP Extraction				1 1311		0207 13:45	
1,2-Dichloroethane	ND	ug/l	5.0				
Benzene	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	10.				
1,1-Dichloroethene	ND	ug/l	5.0				
Trichloroethene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	25.				
2-Butanone	ND	ug/l	50.				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	94.0	%		70-130			
Toluene-d8	101.	%		70-130			
4-Bromofluorobenzene	99.0	%		70-130			
Dibromofluoromethane	101.	%		70-130			
Blank Analysis for sample(s) 02-03 (WG228785-1)							
Semivolatile Organics by MCP 8270C				64 8270C		0206 14:45	0208 20:00 RL
Acenaphthene	ND	ug/kg	330				
1,2,4-Trichlorobenzene	ND	ug/kg	330				
Hexachlorobenzene	ND	ug/kg	330				
Bis(2-chloroethyl)ether	ND	ug/kg	330				
2-Chloronaphthalene	ND	ug/kg	330				
1,2-Dichlorobenzene	ND	ug/kg	330				
1,3-Dichlorobenzene	ND	ug/kg	330				
1,4-Dichlorobenzene	ND	ug/kg	330				
3,3'-Dichlorobenzidine	ND	ug/kg	670				
2,4-Dinitrotoluene	ND	ug/kg	330				
2,6-Dinitrotoluene	ND	ug/kg	330				
Azobenzene	ND	ug/kg	330				
Fluoranthene	ND	ug/kg	330				
4-Bromophenyl phenyl ether	ND	ug/kg	330				
Bis(2-chloroisopropyl)ether	ND	ug/kg	330				
Bis(2-chloroethoxy)methane	ND	ug/kg	330				
Hexachlorobutadiene	ND	ug/kg	670				
Hexachloroethane	ND	ug/kg	330				
Isophorone	ND	ug/kg	330				
Naphthalene	ND	ug/kg	330				
Nitrobenzene	ND	ug/kg	330				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	670				
Butyl benzyl phthalate	ND	ug/kg	330				
Di-n-butylphthalate	ND	ug/kg	330				
Di-n-octylphthalate	ND	ug/kg	330				
Diethyl phthalate	ND	ug/kg	330				
Dimethyl phthalate	ND	ug/kg	330				
Benzo(a)anthracene	ND	ug/kg	330				
Benzo(a)pyrene	ND	ug/kg	330				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601593

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02-03 (WG228785-1)							
Semivolatile Organics by MCP 8270C cont'd				64 8270C	0206 14:45	0208 20:00	RL
Benzo(b)fluoranthene	ND	ug/kg	330				
Benzo(k)fluoranthene	ND	ug/kg	330				
Chrysene	ND	ug/kg	330				
Acenaphthylene	ND	ug/kg	330				
Anthracene	ND	ug/kg	330				
Benzo(ghi)perylene	ND	ug/kg	330				
Fluorene	ND	ug/kg	330				
Phenanthrene	ND	ug/kg	330				
Dibenzo(a,h)anthracene	ND	ug/kg	330				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	330				
Pyrene	ND	ug/kg	330				
Aniline	ND	ug/kg	670				
4-Chloroaniline	ND	ug/kg	330				
Dibenzofuran	ND	ug/kg	330				
2-Methylnaphthalene	ND	ug/kg	330				
Acetophenone	ND	ug/kg	1300				
2,4,6-Trichlorophenol	ND	ug/kg	330				
2-Chlorophenol	ND	ug/kg	400				
2,4-Dichlorophenol	ND	ug/kg	670				
2,4-Dimethylphenol	ND	ug/kg	330				
2-Nitrophenol	ND	ug/kg	1300				
4-Nitrophenol	ND	ug/kg	670				
2,4-Dinitrophenol	ND	ug/kg	1300				
Pentachlorophenol	ND	ug/kg	1300				
Phenol	ND	ug/kg	470				
2-Methylphenol	ND	ug/kg	400				
3-Methylphenol/4-Methylphenol	ND	ug/kg	400				
2,4,5-Trichlorophenol	ND	ug/kg	330				
Surrogate(s)	Recovery			QC Criteria			
2-Fluorophenol	68.0	%		30-130			
Phenol-d6	88.0	%		30-130			
Nitrobenzene-d5	80.0	%		30-130			
2-Fluorobiphenyl	65.0	%		30-130			
2,4,6-Tribromophenol	75.0	%		30-130			
4-Terphenyl-d14	95.0	%		30-130			
Blank Analysis for sample(s) 02-03 (WG228801-1)							
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 17:49	AK
Aroclor 1221	ND	ug/kg	33.3				
Aroclor 1232	ND	ug/kg	33.3				
Aroclor 1242/1016	ND	ug/kg	33.3				
Aroclor 1248	ND	ug/kg	33.3				
Aroclor 1254	ND	ug/kg	33.3				
Aroclor 1260	ND	ug/kg	33.3				
Aroclor 1262	ND	ug/kg	33.3				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601593

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02-03 (WG228801-1)							
Polychlorinated Biphenyls by MCP 8082 cont'd				64 8082	0206 16:10	0208 17:49	AK
Aroclor 1268	ND	ug/kg	33.3				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	66.0	%	30-150				
Decachlorobiphenyl	82.0	%	30-150				
Blank Analysis for sample(s) 02-03 (WG228801-1)							
Polychlorinated Biphenyls by MCP 8082				64 8082	0206 16:10	0208 17:49	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	55.0	%	30-150				
Decachlorobiphenyl	97.0	%	30-150				
Blank Analysis for sample(s) 02-03 (WG228835-1)							
Extractable Petroleum Hydrocarbons				61 EPH-04-1	0206 20:35	0208 13:19	BN
C9-C18 Aliphatics	ND	mg/kg	6.67				
C19-C36 Aliphatics	ND	mg/kg	6.67				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	6.67				
C11-C22 Aromatics, Adjusted	ND	mg/kg	6.67				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	54.0	%	40-140				
o-Terphenyl	76.0	%	40-140				
2-Fluorobiphenyl	78.0	%	40-140				
2-Bromonaphthalene	80.0	%	40-140				

**ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I**

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**REFERENCES**

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.
61. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH). Massachusetts Department of Environmental Protection, DEA/ORS/BWSC. May 2004, Revision 1.1.
64. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). August 2004.

**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.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

**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: L0601593**

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
L0601593-01A	Vial Large unpreserved	A	N/A	2.2 C	Y	Absent	TCLP-EXT-ZHE, TCLP-VOA
L0601593-01B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	AG-CI, AS-CI, BA-CI, CD-CI, CR-CI, HG-C, PB-CI, PREPC, SE-CI
L0601593-01C	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	HERB-TCLP*, PEST-TCLP*, TCLP-ABN
L0601593-02A	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	MCP-7471T, MCP-AG-6010T, MCP-AS-6010T, MCP-BE-6010T, MCP-CD-6010T, MCP-CR-6010T, MCP-CU-6010T, MCP-NI-6010T, MCP-PB-6010T, MCP-SB-6010T, MCP-SE-6010T, MCP-TL-6010T, MCP-ZN-6010T, PREPT, TS
L0601593-02B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-04, MCP-8082-04, MCP-8270-04
L0601593-03A	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	MCP-7471T, MCP-AG-6010T, MCP-AS-6010T, MCP-BE-6010T, MCP-CD-6010T, MCP-CR-6010T, MCP-CU-6010T, MCP-NI-6010T, MCP-PB-6010T, MCP-SB-6010T, MCP-SE-6010T, MCP-TL-6010T, MCP-ZN-6010T, PREPT, TS
L0601593-03B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-04, MCP-8082-04, MCP-8270-04

**Container Comments**

Container ID    Comments



# CHAIN OF CUSTODY

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

### Client Information

Client: ERM

Address: 399 Bolyston St  
Boston MA

Phone: 617 267 6416 7820

Fax: 617 267 6447

Email: Catherine.Regan@erm.com

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments/Detection Limits:

### Project Information

Project Name: Raytheon-Wayland

Project Location: Wayland, MA

Project #: 0043036

Project Manager: Jeremy Picard

ALPHA Quote #:

Turn-Around Time

Standard

RUSH (only confirmed if pre-approved!)

Date Due: 2/10

Time:

Date Rec'd in Lab:

2/9

### Report Information - Data Deliverables

FAX  EMAIL

ADEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program Criteria

### 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

TCLP VAH  
TCLP SVOCs Pest, Herb  
TCLP Metals  
PP13 metals  
SVOC, PCB, EPH

### Billing Information

Same as Client Info

PO #:

ALPHA Job #: 20601593

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
17931	B-539-20060131-01	1/16/06	13:40	S	GR	
2	B-532-10-15-01	2/1/06	12:30			
3	COMP-20060201-01	2/1/06	16:00			

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Relinquished By:

Date/Time

Received By:

Date/Time

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.

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: L0601529  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 02-FEB-2006  
Attn: Jeremy Picard Date Reported: 09-FEB-2006  
Project Number: 0043036 Delivery Method: Alpha  
Site: RAYTHEON-WAYLAND

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? YES
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

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: Douglas Sheehey  
Technical Director

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0601529  
Date Reported: 09-FEB-2006

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0601529-01	B-530-5-10-4.6-01	WAYLAND, MA
L0601529-02	B-530A-10-15-1.8-01	WAYLAND, MA
L0601529-03	B-522A-10-15-1.75-01	WAYLAND, MA
L0601529-04	B-515-15-20-1.7-01	WAYLAND, MA
L0601529-05	B-534-15-20-2.2-01	WAYLAND, MA
L0601529-06	B-534A-20-25-1.25-01	WAYLAND, MA
L0601529-07	B-531A-15-20-3.1-01	WAYLAND, MA
L0601529-08	B-531B-10-15-2.5-01	WAYLAND, MA
L0601529-09	B-529-15-20-2.8-01	WAYLAND, MA
L0601529-10	TB-001-20060131-01	WAYLAND, MA



ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0601529

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Volatile Organics

Re-analysis on dilution was required 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. The dilution is as follows:

10601529-07

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: L0601529-01 Date Collected: 31-JAN-2006 14:00  
 B-530-5-10-4.6-01 Date Received : 02-FEB-2006  
 Sample Matrix: SOIL Date Reported : 09-FEB-2006  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Plastic,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	76.	%	0.10	30 2540G		0206 13:57	PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0206 18:09	RY
Methylene chloride	ND	ug/kg	1400				
1,1-Dichloroethane	ND	ug/kg	210				
Chloroform	ND	ug/kg	210				
Carbon tetrachloride	ND	ug/kg	140				
1,2-Dichloropropane	ND	ug/kg	500				
Dibromochloromethane	ND	ug/kg	140				
1,1,2-Trichloroethane	ND	ug/kg	210				
Tetrachloroethene	2900	ug/kg	140				
Chlorobenzene	ND	ug/kg	140				
Trichlorofluoromethane	ND	ug/kg	710				
1,2-Dichloroethane	ND	ug/kg	140				
1,1,1-Trichloroethane	ND	ug/kg	140				
Bromodichloromethane	ND	ug/kg	140				
trans-1,3-Dichloropropene	ND	ug/kg	140				
cis-1,3-Dichloropropene	ND	ug/kg	140				
1,1-Dichloropropene	ND	ug/kg	710				
Bromoform	ND	ug/kg	570				
1,1,2,2-Tetrachloroethane	ND	ug/kg	140				
Benzene	ND	ug/kg	140				
Toluene	ND	ug/kg	210				
Ethylbenzene	ND	ug/kg	140				
Chloromethane	ND	ug/kg	710				
Bromomethane	ND	ug/kg	280				
Vinyl chloride	ND	ug/kg	280				
Chloroethane	ND	ug/kg	280				
1,1-Dichloroethene	ND	ug/kg	140				
trans-1,2-Dichloroethene	ND	ug/kg	210				
Trichloroethene	3900	ug/kg	140				
1,2-Dichlorobenzene	ND	ug/kg	710				
1,3-Dichlorobenzene	ND	ug/kg	710				
1,4-Dichlorobenzene	ND	ug/kg	710				
Methyl tert butyl ether	ND	ug/kg	280				
p/m-Xylene	ND	ug/kg	280				
o-Xylene	ND	ug/kg	280				
cis-1,2-Dichloroethene	2200	ug/kg	140				
Dibromomethane	ND	ug/kg	1400				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-01  
 B-530-5-10-4.6-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 18:09 RY	
1,2,3-Trichloropropane	ND	ug/kg	1400				
Styrene	ND	ug/kg	280				
Dichlorodifluoromethane	ND	ug/kg	1400				
Acetone	ND	ug/kg	1400				
Carbon disulfide	ND	ug/kg	1400				
2-Butanone	ND	ug/kg	1400				
4-Methyl-2-pentanone	ND	ug/kg	1400				
2-Hexanone	ND	ug/kg	1400				
Bromochloromethane	ND	ug/kg	710				
Tetrahydrofuran	ND	ug/kg	2800				
2,2-Dichloropropane	ND	ug/kg	710				
1,2-Dibromoethane	ND	ug/kg	570				
1,3-Dichloropropane	ND	ug/kg	710				
1,1,1,2-Tetrachloroethane	ND	ug/kg	140				
Bromobenzene	ND	ug/kg	710				
n-Butylbenzene	ND	ug/kg	140				
sec-Butylbenzene	ND	ug/kg	140				
tert-Butylbenzene	ND	ug/kg	710				
o-Chlorotoluene	ND	ug/kg	710				
p-Chlorotoluene	ND	ug/kg	710				
1,2-Dibromo-3-chloropropane	ND	ug/kg	710				
Hexachlorobutadiene	ND	ug/kg	710				
Isopropylbenzene	ND	ug/kg	140				
p-Isopropyltoluene	ND	ug/kg	140				
Naphthalene	ND	ug/kg	710				
n-Propylbenzene	ND	ug/kg	140				
1,2,3-Trichlorobenzene	ND	ug/kg	710				
1,2,4-Trichlorobenzene	ND	ug/kg	710				
1,3,5-Trimethylbenzene	ND	ug/kg	710				
1,2,4-Trimethylbenzene	ND	ug/kg	710				
Ethyl ether	ND	ug/kg	710				
Isopropyl Ether	ND	ug/kg	570				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	570				
Tertiary-Amyl Methyl Ether	ND	ug/kg	570				
1,4-Dioxane	ND	ug/kg	71000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	92.0	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	95.0	%	70-130				
Dibromofluoromethane	99.0	%	70-130				

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-02  
B-530A-10-15-1.8-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0207 10:43		RY
1,2,3-Trichloropropane	ND	ug/kg	7.8				
Styrene	ND	ug/kg	1.6				
Dichlorodifluoromethane	ND	ug/kg	7.8				
Acetone	ND	ug/kg	7.8				
Carbon disulfide	ND	ug/kg	7.8				
2-Butanone	ND	ug/kg	7.8				
4-Methyl-2-pentanone	ND	ug/kg	7.8				
2-Hexanone	ND	ug/kg	7.8				
Bromochloromethane	ND	ug/kg	3.9				
Tetrahydrofuran	ND	ug/kg	16.				
2,2-Dichloropropane	ND	ug/kg	3.9				
1,2-Dibromoethane	ND	ug/kg	3.1				
1,3-Dichloropropane	ND	ug/kg	3.9				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.78				
Bromobenzene	ND	ug/kg	3.9				
n-Butylbenzene	0.91	ug/kg	0.78				
sec-Butylbenzene	ND	ug/kg	0.78				
tert-Butylbenzene	ND	ug/kg	3.9				
o-Chlorotoluene	ND	ug/kg	3.9				
p-Chlorotoluene	ND	ug/kg	3.9				
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.9				
Hexachlorobutadiene	ND	ug/kg	3.9				
Isopropylbenzene	ND	ug/kg	0.78				
p-Isopropyltoluene	0.91	ug/kg	0.78				
Naphthalene	ND	ug/kg	3.9				
n-Propylbenzene	ND	ug/kg	0.78				
1,2,3-Trichlorobenzene	ND	ug/kg	3.9				
1,2,4-Trichlorobenzene	ND	ug/kg	3.9				
1,3,5-Trimethylbenzene	ND	ug/kg	3.9				
1,2,4-Trimethylbenzene	ND	ug/kg	3.9				
Ethyl ether	ND	ug/kg	3.9				
Isopropyl Ether	ND	ug/kg	3.1				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.1				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.1				
1,4-Dioxane	ND	ug/kg	390				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100.	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	104.	%	70-130				
Dibromofluoromethane	107.	%	70-130				
Volatile Organics by MCP 8260B/5035-High				60 8260B	0206 18:44		RY
Trichloroethene	520	ug/kg	140				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	92.0	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0601529-02  
B-530A-10-15-1.8-01

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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ID ANAL
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 18:44 RY
Dibromofluoromethane	98.0	%	70-130			

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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

<b>Laboratory Sample Number:</b> L0601529-03	<b>Date Collected:</b> 01-FEB-2006 09:00
B-522A-10-15-1.75-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	76.	%	0.10	30 2540G		0206 13:57 PJ
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0206 15:13 RY
Methylene chloride	ND	ug/kg	8.3			
1,1-Dichloroethane	ND	ug/kg	1.2			
Chloroform	ND	ug/kg	1.2			
Carbon tetrachloride	ND	ug/kg	0.83			
1,2-Dichloropropane	ND	ug/kg	2.9			
Dibromochloromethane	ND	ug/kg	0.83			
1,1,2-Trichloroethane	ND	ug/kg	1.2			
Tetrachloroethene	ND	ug/kg	0.83			
Chlorobenzene	ND	ug/kg	0.83			
Trichlorofluoromethane	ND	ug/kg	4.2			
1,2-Dichloroethane	ND	ug/kg	0.83			
1,1,1-Trichloroethane	ND	ug/kg	0.83			
Bromodichloromethane	ND	ug/kg	0.83			
trans-1,3-Dichloropropene	ND	ug/kg	0.83			
cis-1,3-Dichloropropene	ND	ug/kg	0.83			
1,1-Dichloropropene	ND	ug/kg	4.2			
Bromoform	ND	ug/kg	3.3			
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.83			
Benzene	ND	ug/kg	0.83			
Toluene	ND	ug/kg	1.2			
Ethylbenzene	ND	ug/kg	0.83			
Chloromethane	ND	ug/kg	4.2			
Bromomethane	ND	ug/kg	1.7			
Vinyl chloride	ND	ug/kg	1.7			
Chloroethane	ND	ug/kg	1.7			
1,1-Dichloroethene	ND	ug/kg	0.83			
trans-1,2-Dichloroethene	ND	ug/kg	1.2			
Trichloroethene	1.4	ug/kg	0.83			
1,2-Dichlorobenzene	ND	ug/kg	4.2			
1,3-Dichlorobenzene	ND	ug/kg	4.2			
1,4-Dichlorobenzene	ND	ug/kg	4.2			
Methyl tert butyl ether	ND	ug/kg	1.7			
p/m-Xylene	ND	ug/kg	1.7			
o-Xylene	ND	ug/kg	1.7			
cis-1,2-Dichloroethene	ND	ug/kg	0.83			
Dibromomethane	ND	ug/kg	8.3			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-03  
 B-522A-10-15-1.75-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 15:13 RY		
1,2,3-Trichloropropane	ND	ug/kg	8.3				
Styrene	ND	ug/kg	1.7				
Dichlorodifluoromethane	ND	ug/kg	8.3				
Acetone	ND	ug/kg	8.3				
Carbon disulfide	ND	ug/kg	8.3				
2-Butanone	ND	ug/kg	8.3				
4-Methyl-2-pentanone	ND	ug/kg	8.3				
2-Hexanone	ND	ug/kg	8.3				
Bromochloromethane	ND	ug/kg	4.2				
Tetrahydrofuran	ND	ug/kg	17.				
2,2-Dichloropropane	ND	ug/kg	4.2				
1,2-Dibromoethane	ND	ug/kg	3.3				
1,3-Dichloropropane	ND	ug/kg	4.2				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.83				
Bromobenzene	ND	ug/kg	4.2				
n-Butylbenzene	ND	ug/kg	0.83				
sec-Butylbenzene	ND	ug/kg	0.83				
tert-Butylbenzene	ND	ug/kg	4.2				
o-Chlorotoluene	ND	ug/kg	4.2				
p-Chlorotoluene	ND	ug/kg	4.2				
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2				
Hexachlorobutadiene	ND	ug/kg	4.2				
Isopropylbenzene	ND	ug/kg	0.83				
p-Isopropyltoluene	ND	ug/kg	0.83				
Naphthalene	ND	ug/kg	4.2				
n-Propylbenzene	ND	ug/kg	0.83				
1,2,3-Trichlorobenzene	ND	ug/kg	4.2				
1,2,4-Trichlorobenzene	ND	ug/kg	4.2				
1,3,5-Trimethylbenzene	ND	ug/kg	4.2				
1,2,4-Trimethylbenzene	ND	ug/kg	4.2				
Ethyl ether	ND	ug/kg	4.2				
Isopropyl Ether	ND	ug/kg	3.3				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.3				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.3				
1,4-Dioxane	ND	ug/kg	420				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100.	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	100.	%	70-130				
Dibromofluoromethane	105.	%	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:	L0601529-04	Date Collected:	01-FEB-2006 13:00
	B-515-15-20-1.7-01	Date Received :	02-FEB-2006
Sample Matrix:	SOIL	Date Reported :	09-FEB-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	74.	%	0.10	30 2540G		0206 13:57	PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0206 19:21	RY
Methylene chloride	ND	ug/kg	1700				
1,1-Dichloroethane	ND	ug/kg	250				
Chloroform	ND	ug/kg	250				
Carbon tetrachloride	ND	ug/kg	170				
1,2-Dichloropropane	ND	ug/kg	590				
Dibromochloromethane	ND	ug/kg	170				
1,1,2-Trichloroethane	ND	ug/kg	250				
Tetrachloroethene	490	ug/kg	170				
Chlorobenzene	ND	ug/kg	170				
Trichlorofluoromethane	ND	ug/kg	840				
1,2-Dichloroethane	ND	ug/kg	170				
1,1,1-Trichloroethane	ND	ug/kg	170				
Bromodichloromethane	ND	ug/kg	170				
trans-1,3-Dichloropropene	ND	ug/kg	170				
cis-1,3-Dichloropropene	ND	ug/kg	170				
1,1-Dichloropropene	ND	ug/kg	840				
Bromoform	ND	ug/kg	670				
1,1,2,2-Tetrachloroethane	ND	ug/kg	170				
Benzene	ND	ug/kg	170				
Toluene	ND	ug/kg	250				
Ethylbenzene	ND	ug/kg	170				
Chloromethane	ND	ug/kg	840				
Bromomethane	ND	ug/kg	340				
Vinyl chloride	ND	ug/kg	340				
Chloroethane	ND	ug/kg	340				
1,1-Dichloroethene	ND	ug/kg	170				
trans-1,2-Dichloroethene	ND	ug/kg	250				
Trichloroethene	16000	ug/kg	170				
1,2-Dichlorobenzene	ND	ug/kg	840				
1,3-Dichlorobenzene	ND	ug/kg	840				
1,4-Dichlorobenzene	ND	ug/kg	840				
Methyl tert butyl ether	ND	ug/kg	340				
p/m-Xylene	ND	ug/kg	340				
o-Xylene	ND	ug/kg	340				
cis-1,2-Dichloroethene	240	ug/kg	170				
Dibromomethane	ND	ug/kg	1700				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-04  
 B-515-15-20-1.7-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 19:21 RY	
1,2,3-Trichloropropane	ND	ug/kg	1700				
Styrene	ND	ug/kg	340				
Dichlorodifluoromethane	ND	ug/kg	1700				
Acetone	ND	ug/kg	1700				
Carbon disulfide	ND	ug/kg	1700				
2-Butanone	ND	ug/kg	1700				
4-Methyl-2-pentanone	ND	ug/kg	1700				
2-Hexanone	ND	ug/kg	1700				
Bromochloromethane	ND	ug/kg	840				
Tetrahydrofuran	ND	ug/kg	3400				
2,2-Dichloropropane	ND	ug/kg	840				
1,2-Dibromoethane	ND	ug/kg	670				
1,3-Dichloropropane	ND	ug/kg	840				
1,1,1,2-Tetrachloroethane	ND	ug/kg	170				
Bromobenzene	ND	ug/kg	840				
n-Butylbenzene	ND	ug/kg	170				
sec-Butylbenzene	ND	ug/kg	170				
tert-Butylbenzene	ND	ug/kg	840				
o-Chlorotoluene	ND	ug/kg	840				
p-Chlorotoluene	ND	ug/kg	840				
1,2-Dibromo-3-chloropropane	ND	ug/kg	840				
Hexachlorobutadiene	ND	ug/kg	840				
Isopropylbenzene	ND	ug/kg	170				
p-Isopropyltoluene	ND	ug/kg	170				
Naphthalene	ND	ug/kg	840				
n-Propylbenzene	ND	ug/kg	170				
1,2,3-Trichlorobenzene	ND	ug/kg	840				
1,2,4-Trichlorobenzene	ND	ug/kg	840				
1,3,5-Trimethylbenzene	ND	ug/kg	840				
1,2,4-Trimethylbenzene	ND	ug/kg	840				
Ethyl ether	ND	ug/kg	840				
Isopropyl Ether	ND	ug/kg	670				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	670				
Tertiary-Amyl Methyl Ether	ND	ug/kg	670				
1,4-Dioxane	ND	ug/kg	84000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	93.0	%	70-130				
Toluene-d8	104.	%	70-130				
4-Bromofluorobenzene	96.0	%	70-130				
Dibromofluoromethane	99.0	%	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:	L0601529-05	Date Collected:	31-JAN-2006 08:00
	B-534-15-20-2.2-01	Date Received :	02-FEB-2006
Sample Matrix:	SOIL	Date Reported :	09-FEB-2006
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	1-Plastic,3-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
Solids, Total	74.	%	0.10	30 2540G		0206 13:57 PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0206 19:58 RY
Methylene chloride	ND	ug/kg	1700			
1,1-Dichloroethane	ND	ug/kg	260			
Chloroform	ND	ug/kg	260			
Carbon tetrachloride	ND	ug/kg	170			
1,2-Dichloropropane	ND	ug/kg	610			
Dibromochloromethane	ND	ug/kg	170			
1,1,2-Trichloroethane	ND	ug/kg	260			
Tetrachloroethene	230	ug/kg	170			
Chlorobenzene	ND	ug/kg	170			
Trichlorofluoromethane	ND	ug/kg	870			
1,2-Dichloroethane	ND	ug/kg	170			
1,1,1-Trichloroethane	ND	ug/kg	170			
Bromodichloromethane	ND	ug/kg	170			
trans-1,3-Dichloropropene	ND	ug/kg	170			
cis-1,3-Dichloropropene	ND	ug/kg	170			
1,1-Dichloropropene	ND	ug/kg	870			
Bromoform	ND	ug/kg	690			
1,1,2,2-Tetrachloroethane	ND	ug/kg	170			
Benzene	ND	ug/kg	170			
Toluene	ND	ug/kg	260			
Ethylbenzene	ND	ug/kg	170			
Chloromethane	ND	ug/kg	870			
Bromomethane	ND	ug/kg	350			
Vinyl chloride	ND	ug/kg	350			
Chloroethane	ND	ug/kg	350			
1,1-Dichloroethene	ND	ug/kg	170			
trans-1,2-Dichloroethene	ND	ug/kg	260			
Trichloroethene	6000	ug/kg	170			
1,2-Dichlorobenzene	ND	ug/kg	870			
1,3-Dichlorobenzene	ND	ug/kg	870			
1,4-Dichlorobenzene	ND	ug/kg	870			
Methyl tert butyl ether	ND	ug/kg	350			
p/m-Xylene	ND	ug/kg	350			
o-Xylene	ND	ug/kg	350			
cis-1,2-Dichloroethene	ND	ug/kg	170			
Dibromomethane	ND	ug/kg	1700			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-05  
 B-534-15-20-2.2-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 19:58 RY	
1,2,3-Trichloropropane	ND	ug/kg	1700				
Styrene	ND	ug/kg	350				
Dichlorodifluoromethane	ND	ug/kg	1700				
Acetone	ND	ug/kg	1700				
Carbon disulfide	ND	ug/kg	1700				
2-Butanone	ND	ug/kg	1700				
4-Methyl-2-pentanone	ND	ug/kg	1700				
2-Hexanone	ND	ug/kg	1700				
Bromochloromethane	ND	ug/kg	870				
Tetrahydrofuran	ND	ug/kg	3500				
2,2-Dichloropropane	ND	ug/kg	870				
1,2-Dibromoethane	ND	ug/kg	690				
1,3-Dichloropropane	ND	ug/kg	870				
1,1,1,2-Tetrachloroethane	ND	ug/kg	170				
Bromobenzene	ND	ug/kg	870				
n-Butylbenzene	ND	ug/kg	170				
sec-Butylbenzene	ND	ug/kg	170				
tert-Butylbenzene	ND	ug/kg	870				
o-Chlorotoluene	ND	ug/kg	870				
p-Chlorotoluene	ND	ug/kg	870				
1,2-Dibromo-3-chloropropane	ND	ug/kg	870				
Hexachlorobutadiene	ND	ug/kg	870				
Isopropylbenzene	ND	ug/kg	170				
p-Isopropyltoluene	ND	ug/kg	170				
Naphthalene	ND	ug/kg	870				
n-Propylbenzene	ND	ug/kg	170				
1,2,3-Trichlorobenzene	ND	ug/kg	870				
1,2,4-Trichlorobenzene	ND	ug/kg	870				
1,3,5-Trimethylbenzene	ND	ug/kg	870				
1,2,4-Trimethylbenzene	ND	ug/kg	870				
Ethyl ether	ND	ug/kg	870				
Isopropyl Ether	ND	ug/kg	690				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	690				
Tertiary-Amyl Methyl Ether	ND	ug/kg	690				
1,4-Dioxane	ND	ug/kg	87000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	91.0	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	93.0	%	70-130				
Dibromofluoromethane	94.0	%	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

<b>Laboratory Sample Number:</b> L0601529-06	<b>Date Collected:</b> 31-JAN-2006 09:00
B-534A-20-25-1.25-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	79.	%	0.10	30 2540G		0206 13:57	PJ
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0206 15:48	RY
Methylene chloride	ND	ug/kg	8.2				
1,1-Dichloroethane	ND	ug/kg	1.2				
Chloroform	ND	ug/kg	1.2				
Carbon tetrachloride	ND	ug/kg	0.82				
1,2-Dichloropropane	ND	ug/kg	2.9				
Dibromochloromethane	ND	ug/kg	0.82				
1,1,2-Trichloroethane	ND	ug/kg	1.2				
Tetrachloroethene	1.2	ug/kg	0.82				
Chlorobenzene	ND	ug/kg	0.82				
Trichlorofluoromethane	ND	ug/kg	4.1				
1,2-Dichloroethane	ND	ug/kg	0.82				
1,1,1-Trichloroethane	ND	ug/kg	0.82				
Bromodichloromethane	ND	ug/kg	0.82				
trans-1,3-Dichloropropene	ND	ug/kg	0.82				
cis-1,3-Dichloropropene	ND	ug/kg	0.82				
1,1-Dichloropropene	ND	ug/kg	4.1				
Bromoform	ND	ug/kg	3.3				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.82				
Benzene	ND	ug/kg	0.82				
Toluene	ND	ug/kg	1.2				
Ethylbenzene	ND	ug/kg	0.82				
Chloromethane	ND	ug/kg	4.1				
Bromomethane	ND	ug/kg	1.6				
Vinyl chloride	ND	ug/kg	1.6				
Chloroethane	ND	ug/kg	1.6				
1,1-Dichloroethene	ND	ug/kg	0.82				
trans-1,2-Dichloroethene	ND	ug/kg	1.2				
Trichloroethene	14.	ug/kg	0.82				
1,2-Dichlorobenzene	ND	ug/kg	4.1				
1,3-Dichlorobenzene	ND	ug/kg	4.1				
1,4-Dichlorobenzene	ND	ug/kg	4.1				
Methyl tert butyl ether	ND	ug/kg	1.6				
p/m-Xylene	ND	ug/kg	1.6				
o-Xylene	ND	ug/kg	1.6				
cis-1,2-Dichloroethene	1.4	ug/kg	0.82				
Dibromomethane	ND	ug/kg	8.2				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-06  
 B-534A-20-25-1.25-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 15:48 RY		
1,2,3-Trichloropropane	ND	ug/kg	8.2				
Styrene	ND	ug/kg	1.6				
Dichlorodifluoromethane	ND	ug/kg	8.2				
Acetone	10.	ug/kg	8.2				
Carbon disulfide	ND	ug/kg	8.2				
2-Butanone	ND	ug/kg	8.2				
4-Methyl-2-pentanone	ND	ug/kg	8.2				
2-Hexanone	ND	ug/kg	8.2				
Bromochloromethane	ND	ug/kg	4.1				
Tetrahydrofuran	ND	ug/kg	16.				
2,2-Dichloropropane	ND	ug/kg	4.1				
1,2-Dibromoethane	ND	ug/kg	3.3				
1,3-Dichloropropane	ND	ug/kg	4.1				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.82				
Bromobenzene	ND	ug/kg	4.1				
n-Butylbenzene	ND	ug/kg	0.82				
sec-Butylbenzene	ND	ug/kg	0.82				
tert-Butylbenzene	ND	ug/kg	4.1				
o-Chlorotoluene	ND	ug/kg	4.1				
p-Chlorotoluene	ND	ug/kg	4.1				
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.1				
Hexachlorobutadiene	ND	ug/kg	4.1				
Isopropylbenzene	ND	ug/kg	0.82				
p-Isopropyltoluene	ND	ug/kg	0.82				
Naphthalene	ND	ug/kg	4.1				
n-Propylbenzene	ND	ug/kg	0.82				
1,2,3-Trichlorobenzene	ND	ug/kg	4.1				
1,2,4-Trichlorobenzene	ND	ug/kg	4.1				
1,3,5-Trimethylbenzene	ND	ug/kg	4.1				
1,2,4-Trimethylbenzene	ND	ug/kg	4.1				
Ethyl ether	ND	ug/kg	4.1				
Isopropyl Ether	ND	ug/kg	3.3				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.3				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.3				
1,4-Dioxane	ND	ug/kg	410				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100.	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	104.	%	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

<b>Laboratory Sample Number:</b> L0601529-07	<b>Date Collected:</b> 31-JAN-2006 12:00
B-531A-15-20-3.1-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	73.	%	0.10	30 2540G		0206 13:57	PJ
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0206 16:59	RY
Methylene chloride	ND	ug/kg	8.4				
1,1-Dichloroethane	ND	ug/kg	1.3				
Chloroform	ND	ug/kg	1.3				
Carbon tetrachloride	ND	ug/kg	0.84				
1,2-Dichloropropane	ND	ug/kg	3.0				
Dibromochloromethane	ND	ug/kg	0.84				
1,1,2-Trichloroethane	ND	ug/kg	1.3				
Tetrachloroethene	63.	ug/kg	0.84				
Chlorobenzene	ND	ug/kg	0.84				
Trichlorofluoromethane	ND	ug/kg	4.2				
1,2-Dichloroethane	ND	ug/kg	0.84				
1,1,1-Trichloroethane	ND	ug/kg	0.84				
Bromodichloromethane	ND	ug/kg	0.84				
trans-1,3-Dichloropropene	ND	ug/kg	0.84				
cis-1,3-Dichloropropene	ND	ug/kg	0.84				
1,1-Dichloropropene	ND	ug/kg	4.2				
Bromoform	ND	ug/kg	3.4				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.84				
Benzene	ND	ug/kg	0.84				
Toluene	ND	ug/kg	1.3				
Ethylbenzene	ND	ug/kg	0.84				
Chloromethane	ND	ug/kg	4.2				
Bromomethane	ND	ug/kg	1.7				
Vinyl chloride	ND	ug/kg	1.7				
Chloroethane	ND	ug/kg	1.7				
1,1-Dichloroethene	ND	ug/kg	0.84				
trans-1,2-Dichloroethene	ND	ug/kg	1.3				
Trichloroethene	>170	ug/kg	.84				
1,2-Dichlorobenzene	ND	ug/kg	4.2				
1,3-Dichlorobenzene	ND	ug/kg	4.2				
1,4-Dichlorobenzene	ND	ug/kg	4.2				
Methyl tert butyl ether	ND	ug/kg	1.7				
p/m-Xylene	ND	ug/kg	1.7				
o-Xylene	ND	ug/kg	1.7				
cis-1,2-Dichloroethene	53.	ug/kg	0.84				
Dibromomethane	ND	ug/kg	8.4				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-07  
 B-531A-15-20-3.1-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 16:59		RY
1,2,3-Trichloropropane	ND	ug/kg	8.4				
Styrene	ND	ug/kg	1.7				
Dichlorodifluoromethane	ND	ug/kg	8.4				
Acetone	ND	ug/kg	8.4				
Carbon disulfide	ND	ug/kg	8.4				
2-Butanone	ND	ug/kg	8.4				
4-Methyl-2-pentanone	ND	ug/kg	8.4				
2-Hexanone	ND	ug/kg	8.4				
Bromochloromethane	ND	ug/kg	4.2				
Tetrahydrofuran	ND	ug/kg	17.				
2,2-Dichloropropane	ND	ug/kg	4.2				
1,2-Dibromoethane	ND	ug/kg	3.4				
1,3-Dichloropropane	ND	ug/kg	4.2				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.84				
Bromobenzene	ND	ug/kg	4.2				
n-Butylbenzene	ND	ug/kg	0.84				
sec-Butylbenzene	ND	ug/kg	0.84				
tert-Butylbenzene	ND	ug/kg	4.2				
o-Chlorotoluene	ND	ug/kg	4.2				
p-Chlorotoluene	ND	ug/kg	4.2				
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2				
Hexachlorobutadiene	ND	ug/kg	4.2				
Isopropylbenzene	ND	ug/kg	0.84				
p-Isopropyltoluene	ND	ug/kg	0.84				
Naphthalene	ND	ug/kg	4.2				
n-Propylbenzene	ND	ug/kg	0.84				
1,2,3-Trichlorobenzene	ND	ug/kg	4.2				
1,2,4-Trichlorobenzene	ND	ug/kg	4.2				
1,3,5-Trimethylbenzene	ND	ug/kg	4.2				
1,2,4-Trimethylbenzene	ND	ug/kg	4.2				
Ethyl ether	ND	ug/kg	4.2				
Isopropyl Ether	ND	ug/kg	3.4				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.4				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.4				
1,4-Dioxane	ND	ug/kg	420				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	106.	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	102.	%	70-130				
Dibromofluoromethane	108.	%	70-130				
Volatile Organics by MCP 8260B/5035-High				60 8260B	0207 11:18		RY
Trichloroethene	440	ug/kg	150				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	92.0	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	93.0	%	70-130				

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



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0601529-07  
B-531A-15-20-3.1-01

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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ID ANAL
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B	0207 11:18	RY
Dibromofluoromethane	97.0	%	70-130			

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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

<b>Laboratory Sample Number:</b> L0601529-08	<b>Date Collected:</b> 31-JAN-2006 13:00
B-531B-10-15-2.5-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	77.	%	0.10	30 2540G		0206 13:57 PJ
Volatile Organics by MCP 8260B/5035-High				60 8260B		0206 20:34 RY
Methylene chloride	ND	ug/kg	1200			
1,1-Dichloroethane	ND	ug/kg	180			
Chloroform	ND	ug/kg	180			
Carbon tetrachloride	ND	ug/kg	120			
1,2-Dichloropropane	ND	ug/kg	420			
Dibromochloromethane	ND	ug/kg	120			
1,1,2-Trichloroethane	ND	ug/kg	180			
Tetrachloroethene	250	ug/kg	120			
Chlorobenzene	ND	ug/kg	120			
Trichlorofluoromethane	ND	ug/kg	600			
1,2-Dichloroethane	ND	ug/kg	120			
1,1,1-Trichloroethane	ND	ug/kg	120			
Bromodichloromethane	ND	ug/kg	120			
trans-1,3-Dichloropropene	ND	ug/kg	120			
cis-1,3-Dichloropropene	ND	ug/kg	120			
1,1-Dichloropropene	ND	ug/kg	600			
Bromoform	ND	ug/kg	480			
1,1,2,2-Tetrachloroethane	ND	ug/kg	120			
Benzene	ND	ug/kg	120			
Toluene	ND	ug/kg	180			
Ethylbenzene	ND	ug/kg	120			
Chloromethane	ND	ug/kg	600			
Bromomethane	ND	ug/kg	240			
Vinyl chloride	ND	ug/kg	240			
Chloroethane	ND	ug/kg	240			
1,1-Dichloroethene	ND	ug/kg	120			
trans-1,2-Dichloroethene	ND	ug/kg	180			
Trichloroethene	1300	ug/kg	120			
1,2-Dichlorobenzene	ND	ug/kg	600			
1,3-Dichlorobenzene	ND	ug/kg	600			
1,4-Dichlorobenzene	ND	ug/kg	600			
Methyl tert butyl ether	ND	ug/kg	240			
p/m-Xylene	ND	ug/kg	240			
o-Xylene	ND	ug/kg	240			
cis-1,2-Dichloroethene	380	ug/kg	120			
Dibromomethane	ND	ug/kg	1200			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-08  
 B-531B-10-15-2.5-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 20:34 RY	
1,2,3-Trichloropropane	ND	ug/kg	1200				
Styrene	ND	ug/kg	240				
Dichlorodifluoromethane	ND	ug/kg	1200				
Acetone	ND	ug/kg	1200				
Carbon disulfide	ND	ug/kg	1200				
2-Butanone	ND	ug/kg	1200				
4-Methyl-2-pentanone	ND	ug/kg	1200				
2-Hexanone	ND	ug/kg	1200				
Bromochloromethane	ND	ug/kg	600				
Tetrahydrofuran	ND	ug/kg	2400				
2,2-Dichloropropane	ND	ug/kg	600				
1,2-Dibromoethane	ND	ug/kg	480				
1,3-Dichloropropane	ND	ug/kg	600				
1,1,1,2-Tetrachloroethane	ND	ug/kg	120				
Bromobenzene	ND	ug/kg	600				
n-Butylbenzene	ND	ug/kg	120				
sec-Butylbenzene	ND	ug/kg	120				
tert-Butylbenzene	ND	ug/kg	600				
o-Chlorotoluene	ND	ug/kg	600				
p-Chlorotoluene	ND	ug/kg	600				
1,2-Dibromo-3-chloropropane	ND	ug/kg	600				
Hexachlorobutadiene	ND	ug/kg	600				
Isopropylbenzene	ND	ug/kg	120				
p-Isopropyltoluene	ND	ug/kg	120				
Naphthalene	ND	ug/kg	600				
n-Propylbenzene	ND	ug/kg	120				
1,2,3-Trichlorobenzene	ND	ug/kg	600				
1,2,4-Trichlorobenzene	ND	ug/kg	600				
1,3,5-Trimethylbenzene	ND	ug/kg	600				
1,2,4-Trimethylbenzene	ND	ug/kg	600				
Ethyl ether	ND	ug/kg	600				
Isopropyl Ether	ND	ug/kg	480				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	480				
Tertiary-Amyl Methyl Ether	ND	ug/kg	480				
1,4-Dioxane	ND	ug/kg	60000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	92.0	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	93.0	%	70-130				
Dibromofluoromethane	95.0	%	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

<b>Laboratory Sample Number:</b> L0601529-09	<b>Date Collected:</b> 31-JAN-2006 13:30
B-529-15-20-2.8-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None
<b>Number &amp; Type of Containers:</b> 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	76.	%	0.10	30 2540G		0206 13:57 PJ
Volatile Organics by MCP 8260B/5035-Low				60 8260B		0206 17:34 RY
Methylene chloride	ND	ug/kg	7.6			
1,1-Dichloroethane	ND	ug/kg	1.1			
Chloroform	ND	ug/kg	1.1			
Carbon tetrachloride	ND	ug/kg	0.76			
1,2-Dichloropropane	ND	ug/kg	2.6			
Dibromochloromethane	ND	ug/kg	0.76			
1,1,2-Trichloroethane	ND	ug/kg	1.1			
Tetrachloroethene	6.3	ug/kg	0.76			
Chlorobenzene	ND	ug/kg	0.76			
Trichlorofluoromethane	ND	ug/kg	3.8			
1,2-Dichloroethane	ND	ug/kg	0.76			
1,1,1-Trichloroethane	ND	ug/kg	0.76			
Bromodichloromethane	ND	ug/kg	0.76			
trans-1,3-Dichloropropene	ND	ug/kg	0.76			
cis-1,3-Dichloropropene	ND	ug/kg	0.76			
1,1-Dichloropropene	ND	ug/kg	3.8			
Bromoform	ND	ug/kg	3.0			
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.76			
Benzene	ND	ug/kg	0.76			
Toluene	ND	ug/kg	1.1			
Ethylbenzene	ND	ug/kg	0.76			
Chloromethane	ND	ug/kg	3.8			
Bromomethane	ND	ug/kg	1.5			
Vinyl chloride	ND	ug/kg	1.5			
Chloroethane	ND	ug/kg	1.5			
1,1-Dichloroethene	ND	ug/kg	0.76			
trans-1,2-Dichloroethene	ND	ug/kg	1.1			
Trichloroethene	30.	ug/kg	0.76			
1,2-Dichlorobenzene	ND	ug/kg	3.8			
1,3-Dichlorobenzene	ND	ug/kg	3.8			
1,4-Dichlorobenzene	ND	ug/kg	3.8			
Methyl tert butyl ether	ND	ug/kg	1.5			
p/m-Xylene	ND	ug/kg	1.5			
o-Xylene	ND	ug/kg	1.5			
cis-1,2-Dichloroethene	3.5	ug/kg	0.76			
Dibromomethane	ND	ug/kg	7.6			

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-09  
 B-529-15-20-2.8-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 17:34 RY		
1,2,3-Trichloropropane	ND	ug/kg	7.6				
Styrene	ND	ug/kg	1.5				
Dichlorodifluoromethane	ND	ug/kg	7.6				
Acetone	ND	ug/kg	7.6				
Carbon disulfide	ND	ug/kg	7.6				
2-Butanone	ND	ug/kg	7.6				
4-Methyl-2-pentanone	ND	ug/kg	7.6				
2-Hexanone	ND	ug/kg	7.6				
Bromochloromethane	ND	ug/kg	3.8				
Tetrahydrofuran	ND	ug/kg	15.				
2,2-Dichloropropane	ND	ug/kg	3.8				
1,2-Dibromoethane	ND	ug/kg	3.0				
1,3-Dichloropropane	ND	ug/kg	3.8				
1,1,1,2-Tetrachloroethane	ND	ug/kg	0.76				
Bromobenzene	ND	ug/kg	3.8				
n-Butylbenzene	ND	ug/kg	0.76				
sec-Butylbenzene	ND	ug/kg	0.76				
tert-Butylbenzene	ND	ug/kg	3.8				
o-Chlorotoluene	ND	ug/kg	3.8				
p-Chlorotoluene	ND	ug/kg	3.8				
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.8				
Hexachlorobutadiene	ND	ug/kg	3.8				
Isopropylbenzene	ND	ug/kg	0.76				
p-Isopropyltoluene	ND	ug/kg	0.76				
Naphthalene	ND	ug/kg	3.8				
n-Propylbenzene	ND	ug/kg	0.76				
1,2,3-Trichlorobenzene	ND	ug/kg	3.8				
1,2,4-Trichlorobenzene	ND	ug/kg	3.8				
1,3,5-Trimethylbenzene	ND	ug/kg	3.8				
1,2,4-Trimethylbenzene	ND	ug/kg	3.8				
Ethyl ether	ND	ug/kg	3.8				
Isopropyl Ether	ND	ug/kg	3.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	3.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	3.0				
1,4-Dioxane	ND	ug/kg	380				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	107.	%	70-130				
Toluene-d8	99.0	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				
Dibromofluoromethane	105.	%	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**

<b>Laboratory Sample Number:</b> L0601529-10	<b>Date Collected:</b> 19-JAN-2006 17:30
TB-001-20060131-01	<b>Date Received :</b> 02-FEB-2006
<b>Sample Matrix:</b> SOIL	<b>Date Reported :</b> 09-FEB-2006
<b>Condition of Sample:</b> Satisfactory	<b>Field Prep:</b> None

**Number & Type of Containers:** 3-Vial

**Comments:**  
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0206 16:23 RY		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				

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

**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-10  
 TB-001-20060131-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 16:23 RY		
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	103.	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	106.	%	70-130				
Volatile Organics by MCP 8260B/5035-High				60 8260B	0206 21:11 RY		
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-10  
TB-001-20060131-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 21:11	RY
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0601529-10  
 TB-001-20060131-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B	0206 21:11		RY
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	91.0	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	92.0	%	70-130				
Dibromofluoromethane	96.0	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0601529

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Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-09 (L0601509-02, WG228772-1)					
Solids, Total	90.	91.	%	1	

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**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS**

Laboratory Job Number: L0601529

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 03,06-07,09-10 (WG228874-1, WG228874-2)					
Methylene chloride	86	90	5	25	70-130
1,1-Dichloroethane	99	100	1	25	70-130
Chloroform	96	98	2	25	70-130
Carbon tetrachloride	101	105	4	25	70-130
1,2-Dichloropropane	106	105	1	25	70-130
Dibromochloromethane	101	105	4	25	70-130
1,1,2-Trichloroethane	109	107	2	25	70-130
Tetrachloroethene	111	104	7	25	70-130
Chlorobenzene	109	106	3	25	70-130
Trichlorofluoromethane	97	96	1	25	70-130
1,2-Dichloroethane	96	97	1	25	70-130
1,1,1-Trichloroethane	100	101	1	25	70-130
Bromodichloromethane	101	104	3	25	70-130
trans-1,3-Dichloropropene	95	96	1	25	70-130
cis-1,3-Dichloropropene	100	102	2	25	70-130
1,1-Dichloropropene	99	99	0	25	70-130
Bromoform	106	110	4	50	70-130
1,1,2,2-Tetrachloroethane	102	101	1	25	70-130
Benzene	101	100	1	25	70-130
Toluene	104	100	4	25	70-130
Ethylbenzene	110	107	3	25	70-130
Chloromethane	90	87	3	50	70-130
Bromomethane	112	117	4	50	70-130
Vinyl chloride	82	80	2	25	70-130
Chloroethane	112	113	1	25	70-130
1,1-Dichloroethene	98	97	1	25	70-130
trans-1,2-Dichloroethene	101	100	1	25	70-130
Trichloroethene	102	101	1	25	70-130
1,2-Dichlorobenzene	105	103	2	25	70-130
1,3-Dichlorobenzene	107	104	3	25	70-130
1,4-Dichlorobenzene	112	109	3	25	70-130
Methyl tert butyl ether	94	97	3	25	70-130
p/m-Xylene	115	112	3	25	70-130
o-Xylene	113	111	2	25	70-130
cis-1,2-Dichloroethene	103	104	1	25	70-130
Dibromomethane	103	103	0	25	70-130
1,2,3-Trichloropropane	111	109	2	25	70-130
Styrene	117	114	3	25	70-130
Dichlorodifluoromethane	100	99	1	50	70-130
Acetone	76	75	1	50	70-130
Carbon disulfide	77	76	1	25	70-130
2-Butanone	80	82	2	50	70-130
4-Methyl-2-pentanone	92	94	2	50	70-130
2-Hexanone	87	87	0	50	70-130
Bromochloromethane	102	103	1	25	70-130
Tetrahydrofuran	80	80	0	25	70-130
2,2-Dichloropropane	103	107	4	50	70-130
1,2-Dibromoethane	106	108	2	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 03,06-07,09-10 (WG228874-1, WG228874-2)					
1,3-Dichloropropane	108	107	1	25	70-130
1,1,1,2-Tetrachloroethane	113	113	0	25	70-130
Bromobenzene	110	106	4	25	70-130
n-Butylbenzene	95	94	1	25	70-130
sec-Butylbenzene	104	101	3	25	70-130
tert-Butylbenzene	106	105	1	25	70-130
o-Chlorotoluene	107	104	3	25	70-130
p-Chlorotoluene	105	102	3	25	70-130
1,2-Dibromo-3-chloropropane	91	95	4	50	70-130
Hexachlorobutadiene	104	100	4	25	70-130
Isopropylbenzene	122	119	2	25	70-130
p-Isopropyltoluene	106	106	0	25	70-130
Naphthalene	95	100	5	25	70-130
n-Propylbenzene	109	105	4	25	70-130
1,2,3-Trichlorobenzene	101	99	2	25	70-130
1,2,4-Trichlorobenzene	100	97	3	25	70-130
1,3,5-Trimethylbenzene	102	106	4	25	70-130
1,2,4-Trimethylbenzene	97	108	11	25	70-130
Ethyl ether	100	101	1	25	70-130
Isopropyl Ether	87	87	0	25	70-130
Ethyl-Tert-Butyl-Ether	95	97	2	25	70-130
Tertiary-Amyl Methyl Ether	95	96	1	25	70-130
1,4-Dioxane	98	99	1	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	94	94	0		70-130
Toluene-d8	103	101	2		70-130
4-Bromofluorobenzene	95	94	1		70-130
Dibromofluoromethane	99	101	2		70-130
Volatile Organics by MCP 8260B/5035-Low for sample(s) 02 (WG228934-1, WG228934-2)					
Methylene chloride	83	88	6	25	70-130
1,1-Dichloroethane	100	106	6	25	70-130
Chloroform	98	103	5	25	70-130
Carbon tetrachloride	104	115	10	25	70-130
1,2-Dichloropropane	103	109	6	25	70-130
Dibromochloromethane	103	113	9	25	70-130
1,1,2-Trichloroethane	110	116	5	25	70-130
Tetrachloroethene	109	116	6	25	70-130
Chlorobenzene	108	114	5	25	70-130
Trichlorofluoromethane	105	111	6	25	70-130
1,2-Dichloroethane	100	106	6	25	70-130
1,1,1-Trichloroethane	102	109	7	25	70-130
Bromodichloromethane	104	113	8	25	70-130
trans-1,3-Dichloropropene	97	104	7	25	70-130
cis-1,3-Dichloropropene	99	106	7	25	70-130
1,1-Dichloropropene	99	105	6	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 02 (WG228934-1, WG228934-2)					
Bromoform	107	117	9	50	70-130
1,1,2,2-Tetrachloroethane	105	104	1	25	70-130
Benzene	97	104	7	25	70-130
Toluene	102	109	7	25	70-130
Ethylbenzene	109	115	5	25	70-130
Chloromethane	106	108	2	50	70-130
Bromomethane	106	126	17	50	70-130
Vinyl chloride	118	96	21	25	70-130
Chloroethane	118	126	7	25	70-130
1,1-Dichloroethene	98	102	4	25	70-130
trans-1,2-Dichloroethene	99	104	5	25	70-130
Trichloroethene	102	108	6	25	70-130
1,2-Dichlorobenzene	103	110	7	25	70-130
1,3-Dichlorobenzene	104	112	7	25	70-130
1,4-Dichlorobenzene	109	116	6	25	70-130
Methyl tert butyl ether	88	92	4	25	70-130
p/m-Xylene	112	119	6	25	70-130
o-Xylene	108	114	5	25	70-130
cis-1,2-Dichloroethene	102	107	5	25	70-130
Dibromomethane	104	110	6	25	70-130
1,2,3-Trichloropropane	115	115	0	25	70-130
Styrene	111	118	6	25	70-130
Dichlorodifluoromethane	127	128	1	50	70-130
Acetone	84	78	7	50	70-130
Carbon disulfide	75	78	4	25	70-130
2-Butanone	84	83	1	50	70-130
4-Methyl-2-pentanone	90	89	1	50	70-130
2-Hexanone	90	86	5	50	70-130
Bromochloromethane	101	106	5	25	70-130
Tetrahydrofuran	89	88	1	25	70-130
2,2-Dichloropropane	104	111	7	50	70-130
1,2-Dibromoethane	107	111	4	25	70-130
1,3-Dichloropropane	107	112	5	25	70-130
1,1,1,2-Tetrachloroethane	111	121	9	25	70-130
Bromobenzene	109	113	4	25	70-130
n-Butylbenzene	92	105	13	25	70-130
sec-Butylbenzene	101	108	7	25	70-130
tert-Butylbenzene	104	110	6	25	70-130
o-Chlorotoluene	108	114	5	25	70-130
p-Chlorotoluene	105	110	5	25	70-130
1,2-Dibromo-3-chloropropane	97	98	1	50	70-130
Hexachlorobutadiene	106	112	6	25	70-130
Isopropylbenzene	119	126	6	25	70-130
p-Isopropyltoluene	102	115	12	25	70-130
Naphthalene	87	101	15	25	70-130
n-Propylbenzene	107	113	5	25	70-130
1,2,3-Trichlorobenzene	94	103	9	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-Low for sample(s) 02 (WG228934-1, WG228934-2)					
1,2,4-Trichlorobenzene	94	102	8	25	70-130
1,3,5-Trimethylbenzene	98	115	16	25	70-130
1,2,4-Trimethylbenzene	92	115	22	25	70-130
Ethyl ether	96	100	4	25	70-130
Isopropyl Ether	85	90	6	25	70-130
Ethyl-Tert-Butyl-Ether	88	94	7	25	70-130
Tertiary-Amyl Methyl Ether	85	91	7	25	70-130
1,4-Dioxane	98	98	0	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	94	96	2		70-130
Toluene-d8	101	102	1		70-130
4-Bromofluorobenzene	95	96	1		70-130
Dibromofluoromethane	98	99	1		70-130
Volatile Organics by MCP 8260B/5035-High for sample(s) 01-02,04-05,08,10 (WG228872-1, WG228872-2)					
Methylene chloride	86	90	5	25	70-130
1,1-Dichloroethane	99	100	1	25	70-130
Chloroform	96	98	2	25	70-130
Carbon tetrachloride	101	105	4	25	70-130
1,2-Dichloropropane	106	105	1	25	70-130
Dibromochloromethane	101	105	4	25	70-130
1,1,2-Trichloroethane	109	107	2	25	70-130
Tetrachloroethene	111	104	7	25	70-130
Chlorobenzene	109	106	3	25	70-130
Trichlorofluoromethane	97	96	1	25	70-130
1,2-Dichloroethane	96	97	1	25	70-130
1,1,1-Trichloroethane	100	101	1	25	70-130
Bromodichloromethane	101	104	3	25	70-130
trans-1,3-Dichloropropene	95	96	1	25	70-130
cis-1,3-Dichloropropene	100	102	2	25	70-130
1,1-Dichloropropene	99	99	0	25	70-130
Bromoform	106	110	4	50	70-130
1,1,2,2-Tetrachloroethane	102	101	1	25	70-130
Benzene	101	100	1	25	70-130
Toluene	104	100	4	25	70-130
Ethylbenzene	110	107	3	25	70-130
Chloromethane	90	87	3	50	70-130
Bromomethane	112	117	4	50	70-130
Vinyl chloride	82	80	2	25	70-130
Chloroethane	112	113	1	25	70-130
1,1-Dichloroethene	98	97	1	25	70-130
trans-1,2-Dichloroethene	101	100	1	25	70-130
Trichloroethene	102	101	1	25	70-130
1,2-Dichlorobenzene	105	103	2	25	70-130
1,3-Dichlorobenzene	107	104	3	25	70-130
1,4-Dichlorobenzene	112	109	3	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 01-02,04-05,08,10 (WG228872-1, WG228872-2)					
Methyl tert butyl ether	94	97	3	25	70-130
p/m-Xylene	115	112	3	25	70-130
o-Xylene	113	111	2	25	70-130
cis-1,2-Dichloroethene	103	104	1	25	70-130
Dibromomethane	103	103	0	25	70-130
1,2,3-Trichloropropane	111	109	2	25	70-130
Styrene	117	114	3	25	70-130
Dichlorodifluoromethane	100	99	1	50	70-130
Acetone	76	75	1	50	70-130
Carbon disulfide	77	76	1	25	70-130
2-Butanone	80	82	2	50	70-130
4-Methyl-2-pentanone	92	94	2	50	70-130
2-Hexanone	87	87	0	50	70-130
Bromochloromethane	102	103	1	25	70-130
Tetrahydrofuran	80	80	0	25	70-130
2,2-Dichloropropane	103	107	4	50	70-130
1,2-Dibromoethane	106	108	2	25	70-130
1,3-Dichloropropane	108	107	1	25	70-130
1,1,1,2-Tetrachloroethane	113	113	0	25	70-130
Bromobenzene	110	106	4	25	70-130
n-Butylbenzene	95	94	1	25	70-130
sec-Butylbenzene	104	101	3	25	70-130
tert-Butylbenzene	106	105	1	25	70-130
o-Chlorotoluene	107	104	3	25	70-130
p-Chlorotoluene	105	102	3	25	70-130
1,2-Dibromo-3-chloropropane	91	95	4	50	70-130
Hexachlorobutadiene	104	100	4	25	70-130
Isopropylbenzene	122	119	2	25	70-130
p-Isopropyltoluene	106	106	0	25	70-130
Naphthalene	95	100	5	25	70-130
n-Propylbenzene	109	105	4	25	70-130
1,2,3-Trichlorobenzene	101	99	2	25	70-130
1,2,4-Trichlorobenzene	100	97	3	25	70-130
1,3,5-Trimethylbenzene	102	106	4	25	70-130
1,2,4-Trimethylbenzene	97	108	11	25	70-130
Ethyl ether	100	101	1	25	70-130
Isopropyl Ether	87	87	0	25	70-130
Ethyl-Tert-Butyl-Ether	95	97	2	25	70-130
Tertiary-Amyl Methyl Ether	95	96	1	25	70-130
1,4-Dioxane	98	99	1	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	94	94	0		70-130
Toluene-d8	103	101	2		70-130
4-Bromofluorobenzene	95	94	1		70-130
Dibromofluoromethane	99	101	2		70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 07 (WG228872-4, WG228872-5)					
Methylene chloride	83	88	6	25	70-130
1,1-Dichloroethane	100	106	6	25	70-130
Chloroform	98	103	5	25	70-130
Carbon tetrachloride	104	115	10	25	70-130
1,2-Dichloropropane	103	109	6	25	70-130
Dibromochloromethane	103	113	9	25	70-130
1,1,2-Trichloroethane	110	116	5	25	70-130
Tetrachloroethene	109	116	6	25	70-130
Chlorobenzene	108	114	5	25	70-130
Trichlorofluoromethane	105	111	6	25	70-130
1,2-Dichloroethane	100	106	6	25	70-130
1,1,1-Trichloroethane	102	109	7	25	70-130
Bromodichloromethane	104	113	8	25	70-130
trans-1,3-Dichloropropene	97	104	7	25	70-130
cis-1,3-Dichloropropene	99	106	7	25	70-130
1,1-Dichloropropene	99	105	6	25	70-130
Bromoform	107	117	9	50	70-130
1,1,2,2-Tetrachloroethane	105	104	1	25	70-130
Benzene	97	104	7	25	70-130
Toluene	102	109	7	25	70-130
Ethylbenzene	109	115	5	25	70-130
Chloromethane	106	108	2	50	70-130
Bromomethane	106	126	17	50	70-130
Vinyl chloride	118	96	21	25	70-130
Chloroethane	118	126	7	25	70-130
1,1-Dichloroethene	98	102	4	25	70-130
trans-1,2-Dichloroethene	99	104	5	25	70-130
Trichloroethene	102	108	6	25	70-130
1,2-Dichlorobenzene	103	110	7	25	70-130
1,3-Dichlorobenzene	104	112	7	25	70-130
1,4-Dichlorobenzene	109	116	6	25	70-130
Methyl tert butyl ether	88	92	4	25	70-130
p/m-Xylene	112	119	6	25	70-130
o-Xylene	108	114	5	25	70-130
cis-1,2-Dichloroethene	102	107	5	25	70-130
Dibromomethane	104	110	6	25	70-130
1,2,3-Trichloropropane	115	115	0	25	70-130
Styrene	111	118	6	25	70-130
Dichlorodifluoromethane	127	128	1	50	70-130
Acetone	84	78	7	50	70-130
Carbon disulfide	75	78	4	25	70-130
2-Butanone	84	83	1	50	70-130
4-Methyl-2-pentanone	90	89	1	50	70-130
2-Hexanone	90	86	5	50	70-130
Bromochloromethane	101	106	5	25	70-130
Tetrahydrofuran	89	88	1	25	70-130
2,2-Dichloropropane	104	111	7	50	70-130



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0601529

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B/5035-High for sample(s) 07 (WG228872-4, WG228872-5)					
1,2-Dibromoethane	107	111	4	25	70-130
1,3-Dichloropropane	107	112	5	25	70-130
1,1,1,2-Tetrachloroethane	111	121	9	25	70-130
Bromobenzene	109	113	4	25	70-130
n-Butylbenzene	92	105	13	25	70-130
sec-Butylbenzene	101	108	7	25	70-130
tert-Butylbenzene	104	110	6	25	70-130
o-Chlorotoluene	108	114	5	25	70-130
p-Chlorotoluene	105	110	5	25	70-130
1,2-Dibromo-3-chloropropane	97	98	1	50	70-130
Hexachlorobutadiene	106	112	6	25	70-130
Isopropylbenzene	119	126	6	25	70-130
p-Isopropyltoluene	102	115	12	25	70-130
Naphthalene	87	101	15	25	70-130
n-Propylbenzene	107	113	5	25	70-130
1,2,3-Trichlorobenzene	94	103	9	25	70-130
1,2,4-Trichlorobenzene	94	102	8	25	70-130
1,3,5-Trimethylbenzene	98	115	16	25	70-130
1,2,4-Trimethylbenzene	92	115	22	25	70-130
Ethyl ether	96	100	4	25	70-130
Isopropyl Ether	85	90	6	25	70-130
Ethyl-Tert-Butyl-Ether	88	94	7	25	70-130
Tertiary-Amyl Methyl Ether	85	91	7	25	70-130
1,4-Dioxane	98	98	0	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	94	96	2		70-130
Toluene-d8	101	102	1		70-130
4-Bromofluorobenzene	95	96	1		70-130
Dibromofluoromethane	98	99	1		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601529

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03,06-07,09-10 (WG228874-3)							
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0206 11:37 RY		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03,06-07,09-10 (WG228874-3)							
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B	0206 11:37 RY		
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	94.0	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	94.0	%	70-130				
Dibromofluoromethane	94.0	%	70-130				
Blank Analysis for sample(s) 02 (WG228934-3)							
Volatile Organics by MCP 8260B/5035-Low				60 8260B	0207 08:51 RY		
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02 (WG228934-3)							
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B		0207 08:51	RY
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	2.0				
o-Xylene	ND	ug/kg	2.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	2.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	4.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				

**ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02 (WG228934-3)							
Volatile Organics by MCP 8260B/5035-Low cont'd				60 8260B		0207 08:51	RY
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	96.0	%	70-130				
Dibromofluoromethane	93.0	%	70-130				
Blank Analysis for sample(s) 01-02,04-05,08,10 (WG228872-3)							
Volatile Organics by MCP 8260B/5035-High				60 8260B		0206 11:37	RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02,04-05,08,10 (WG228872-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 11:37	RY
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02,04-05,08,10 (WG228872-3)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B		0206 11:37	RY
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	94.0	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	94.0	%	70-130				
Dibromofluoromethane	94.0	%	70-130				
Blank Analysis for sample(s) 07 (WG228872-6)							
Volatile Organics by MCP 8260B/5035-High				60 8260B		0207 08:51	RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	100				
o-Xylene	ND	ug/kg	100				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0601529

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 07 (WG228872-6)							
Volatile Organics by MCP 8260B/5035-High cont'd				60 8260B	0207 08:51		RY
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	100				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	96.0	%	70-130				
Dibromofluoromethane	93.0	%	70-130				



**ALPHA ANALYTICAL LABORATORIES**  
**ADDENDUM I**

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**REFERENCES**

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

**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.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

**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: L0601529**

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
L0601529-01A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-01B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-01C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-01D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-02A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-02B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-02C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-02D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-03A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-03B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-03C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-03D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-04A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-04B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-04C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-04D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-05A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-05B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-05C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-05D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-06A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-06B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-06C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-06D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-07A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-07B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-07C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-07D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-08A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-08B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-08C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04
L0601529-08D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-09A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-09B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-09C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260LG-04
L0601529-09D	Plastic 2oz unpreserved for TS	A	N/A	1.3 C	Y	Absent	TS
L0601529-10A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-10B	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04
L0601529-10C	Vial NaHSO4 preserved	A	N/A	1.3 C	Y	Absent	MCP-8260H-04, MCP-8260LG-04

ALPHA ANALYTICAL LABORATORIES  
LOGIN SPECIFIC INFORMATION

Laboratory Job Number: L0601529

Continued

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Container ID	Container Type	Cooler pH	Temp	Pres Seal	Analysis
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Container Comments

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

# CHAIN OF CUSTODY

PAGE 1 OF 1

### Client Information

Client: ERM  
 Address: 399 Boston St  
Boston, MA 02116  
 Phone: (617) 646-7828  
 Fax: (617) 267-6447  
 Email: Catherine.regan@erm.com

Project Name: Raytheon-Weyland  
 Project Location: Weyland, MA  
 Project #: 6043036  
 Project Manager: Jeremy Picard  
 ALPHA Quote #: \_\_\_\_\_  
 Turn-Around Time: \_\_\_\_\_

Date Rec'd in Lab: 2/2  
 Report Information - Data Deliverables  
 FAX  EMAIL  
 ADEX  Add'l Deliverables  
 Regulatory Requirements/Report Limits

Alpha Job #: 20601529  
 Billing Information  
 Same as Client info PO #: \_\_\_\_\_

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments/Detection Limits:  
#1616 VOC high unless result of VOC low extracts analysis

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
1529.1	B-530-5-10-4.6-01	1/31/06	14:00	S	CR
2	B-530A-10-15-1.8-01	2/1/06	11:00		
3	B-532A-10-15-1.75-01	2/1/06	9:00		
4	B-515-15-20-1.7-01	2/1/06	13:00		
5	B-534-15-20-2.2-01	1/31/06	8:00		
6	B-534A-20-25-1.25-01	1/31/06	9:00		
7	B-531A-15-20-3.1-01	1/31/06	12:00		
8	B-531B-10-15-2.5-01	1/31/06	13:00		
9	B-529-15-20-2.8-01	1/31/06	13:30		
10	TB-001-26060131-01	1/19/06	17:30		

ALPHA Lab ID	Sample ID	Container Type	Preservative	Relinquished By:	Date/Time	Received By:	Date/Time	Sample Specific Comments
1529.1	B-530-5-10-4.6-01	V	V	[Signature]	2/2/06 15:30	[Signature]	2/2/06 15:30	
2	B-530A-10-15-1.8-01	F	G	[Signature]	2/2/06 15:30	[Signature]	2/2/06 15:30	
3	B-532A-10-15-1.75-01							
4	B-515-15-20-1.7-01							
5	B-534-15-20-2.2-01							
6	B-534A-20-25-1.25-01							
7	B-531A-15-20-3.1-01							
8	B-531B-10-15-2.5-01							
9	B-529-15-20-2.8-01							
10	TB-001-26060131-01							

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY  
 IS YOUR PROJECT MCP ?  
 Relinquished By: [Signature] Date/Time: 2/2/06 15:30  
 Received By: [Signature] Date/Time: 2/2/06 15:30  
 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.

*Appendix D*  
*Design Calculations*

*TO BE INSERTED IN FINAL REPORT*

*Appendix E*  
*Site-Specific Health &*  
*Safety Plan*

Raytheon Company

Health & Safety Plan  
*Former Raytheon Facility*  
*430 Boston Post Road*  
*Wayland, Massachusetts*

26 April 2006

0043602

**ERM-EnviroClean New England, Inc.**  
399 Boylston Street, 6<sup>th</sup> Floor  
Boston, Massachusetts 02116



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*Table 1: Summary Statistics for Soil*

## **1.0 INTRODUCTION**

### **1.1 OVERVIEW**

This Health and Safety Plan (HASP) has been developed to establish the procedures necessary for protecting personnel, the general public and off-site receptors from potential hazards resulting from activities associated with Phase IV remedial activities at the former Raytheon facility located at 430 Boston Post Road, in Wayland, Massachusetts (Figure 1).

### **1.2 PURPOSE AND SCOPE**

The purpose of this HASP is to address the hazards associated with the presence of hazardous materials in soil and groundwater, as well as related remedial activities. This plan was intended to address activities, which will consist of disturbance, movement, handling of remedial wastes, or similar site-invasive activities, which may result in the potential contact with oil and/or hazardous material (OHM). This HASP is intended for use by ERM EnviroClean employees only. Other subcontractors and parties entering the Site will be required to read and acknowledge this HASP, but must follow their own health and safety protocols and procedures.

The following activities will be carried out as part of the Comprehensive Remedial Action:

- Excavation of impacted soils and restoration of disturbed areas;  
and
- Implementation of bioremediation to treat impacted groundwater.

1.3

**PROJECT TEAM**

A list of key project personnel and site personnel is provided below:

Company	Name	Project Title /Assigned Role	Phone Numbers
Raytheon	Ron Slager	PRP Manager	(508) 490-1707 (617) 675-0377 pager
	Louis Burchart	Sr. Environmental Engineer	(508) 490-1351 (508) 727-6593 pager
ERM EC	John Drobinski	Licensed-Site- Professional Site Manager	617-646-7850  617-833-3583 cell
	Rachel Leary	Task Supervisor Competent Person	617-646-7841 617-285-5314 cell
	Jeremy Picard	Task Supervisor Competent Person	617-646-7815 617-519-3267 cell
	Ann McMenemy	Wetlands Specialist	617-646-7812 978-500-6907 cell
To Be Named		General Contractor	
	To be Named	Site Safety and Health Supervisor	
	To be Named	First Aid	

The control of site hazards is dependent upon the degree to which management enforces compliance and employees cooperate with the specified health and safety requirements. Therefore, personnel at all levels of the organization must recognize their individual responsibility to comply. All activities covered by this HASP must be conducted in compliance with this HASP and with applicable federal, state and local health and safety regulations, including 29 CFR 1910.120 and 29 CFR 1926. Personnel covered by this HASP who cannot or will not comply must be excluded from site activities.

1.3.1

**Site Managers and Task Supervisors**

Site Managers and Task Supervisors are responsible for compliance with company health and safety programs, policies, procedures and applicable laws and regulations. This includes the need for effective oversight and supervision of project staff necessary to control the health and safety aspects of daily operations.

### **1.3.2**      *Site Safety and Health Supervisor (SSHS)*

SSHS are appointed on a per-project basis, by the Project Manager and/or other management representatives. The SSHS is defined by the Occupational Health and Safety Administration (OSHA) 1910.120 as "...the individual located on a hazardous waste site who is responsible to the employer and has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements."

The SSHS is responsible to both project management and the designated local/regional health and safety representative with regard to the completion of these assigned duties.

### **1.3.3**      *Competent Person*

A "Competent Person", as defined by OSHA 1926.20(b)-Accident Prevention Responsibilities, is the individual "who is capable of identifying existing and predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." The competent person may also be the site safety and health supervisor. A competent person must be designated on a site-by-site basis based on the site conditions, scope-of-work, and the individual's ability to recognize site-specific hazards and take appropriate corrective actions. Please note that Rachel Leary and Jeremy Picard are competent persons on behalf of ERM EC only.

### **1.3.4**      *First Aid Personnel*

At least one individual must be present during all on-site activities who has a current (Red Cross or equivalent) training and certification in basic first aid and cardiopulmonary resuscitation (CPR). This person must also have received training and information regarding the company's bloodborne pathogen control program including the required use of "universal precautions" and the availability of Hepatitis B vaccinations (HBV) during yearly physicals.

### **1.3.5**      *Staff*

Ultimate control of health safety is in the hands of each individual employee. Therefore, each employee must become familiar with and comply with all health and safety requirements associated with their position and daily operations. Employees also have the responsibility to notify the appropriate management and/or health and safety

representative of unsafe conditions and accidents/injuries immediately. When employees are issued respirators or any other personal protective equipment (PPE), they are responsible for ensuring that said items are used properly, cleaned as required and maintained in good working order.

### **1.3.6**      *(Sub) contractors*

(Sub) contractors must develop their own HASP related to their specific on-site activities. This HASP has been developed with the intent that all individual contractors/subcontractors will review the contents of this plan, and agree to incorporate the basic practices as a minimum for site operations in their own HASP.



The Site, surrounding properties and physical features as well as the proposed work area are displayed in [Figure 2](#). Raytheon utilized the Site from 1955 to 1995 for electronic testing and chemical process research to support in-house prototype manufacturing. In 1995, Raytheon ceased operations and decommissioned the facility.

Assessment of the potential for past release(s) of oil OHM to soil and/or groundwater associated with Raytheon's historic operations was initiated in 1995. Identification of OHM in Site soil and groundwater required filing a release notification with the Massachusetts Department of Environmental Protection (DEP) in January 1996. Subsequent assessment and remedial response actions have been conducted in accordance with the requirements of the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The site is being assessed and remediated under two different Release Tracking Numbers (RTNs), RTN 3-22408 and Tier IB Permit Number W045278 (the "Northern Area") and RTN 3-13302 Tier IB Permit (No. 133939) (the "Southern and Western Areas").

Data from assessment activities, presented in the Phase II, suggest the presence of residual, sorbed and/or dissolved phase volatile organic compounds (VOCs) located in the Northern Area soils that represent the source of dissolved phase impacts to groundwater in the Northern Area. The Phase III - Remedial Action Plan (Phase III) dated 16 December 2005, identified "Excavation of Source Area Saturated Soils" and "Bioremediation in Groundwater" as the preferred remedial approaches for abatement of Site impacts. The Phase III also indicated that pre-remedial characterization activities would need to be conducted to identify chlorinated VOC (CVOC) concentrations in the source area saturated soil.

### 3.0 HAZARD ASSESSMENT

#### 3.1 CHEMICAL HAZARDS

This chemical hazard assessment is based on site-specific data from previous investigations (*Phase II Comprehensive Site Assessment, 16 December 2005*).

VOCs are the anticipated soil and/or groundwater contaminants. It is not anticipated that inhalation hazards will be present. It is unlikely that soil will be dry enough to generate any impacted dust however the exclusion zone will be monitored for dust as a precaution. A summary of observed contaminant concentrations in soil is provided in Table 1.

Finally, any chemicals brought onto the site by contractors are subject to the contractor's own safety procedures, including Hazard Communication requirements, as discussed below.

##### 3.1.1 *Chemicals Subject to OSHA Hazard Communication*

All chemicals brought on site such as solvents, reagents, and decontamination solutions, or any other hazardous chemical must be accompanied by the required labels, Material Safety Data Sheets (MSDSs), and employee training documentation as required by OSHA 1910.1200.

##### 3.1.2 *VOC Compounds*

Exposure to the VOC vapors above their respective permissible exposure limits (PELs), as defined by OSHA, may produce irritation of the mucous membranes of the upper respiratory tract, nose and mouth. Overexposure may also result in the depression of the central nervous system. Symptoms of such exposure include drowsiness, headache, fatigue and drunken-like behavior. Trichloroethene (TCE) and tetrachloroethene (PCE) have been determined to be carcinogenic, targeting eyes, skin, liver, kidneys and respiratory system.

The vapor pressures of these compounds are high enough to generate significant quantities of airborne vapor. On sites where low concentrations of these compounds are present in groundwater, the potential inhalation hazard to the field team during chemical oxidation activities is low. Groundwater that will be pumped to the surface to be treated, with be contained in piping and closed top tanks.

## 3.2

### *PHYSICAL HAZARDS*

Potential physical hazards include injury from the operation of heavy equipment, confined space entry, excavation hazards, trip hazards, fire and explosion, vehicle traffic and noise exposure. No significant biological hazards are expected other than those associated with indigenous plants and insects.

A "Competent Person" must perform frequent and regular inspections of the Site, materials and equipment in accordance with 29 CFR 1926.20 to identify site hazards. All personnel on site should be provided with the information and training necessary to avoid accidental injury, including assuring that the site is maintained in such a way that slip, trip and fall hazards are recognized and eliminated or controlled. Basic PPE (steel-toed boots, hardhats and safety eyewear) must be available and its use enforced.

### 3.2.1

#### *Heavy Equipment/Construction Hazards*

The use of backhoes, front-end loaders, dump trucks, cranes and other heavy equipment represent potentially serious construction hazards. Whenever such equipment is used, personnel in the vicinity should be limited to those who must be there to complete their assigned duties. All personnel must avoid standing, within the turning radius of the equipment or below any suspended load. Job sites must be kept as clean, orderly and sanitary as possible. When water is used, care must be taken to avoid creating muddy or slippery conditions. If slippery conditions are unavoidable, barriers and warning signs must be used to warn of these dangers.

Never turn your back to operating machinery. Never wear loose clothing jewelry, hair or other personal items around rotating equipment or other equipment that could may catch or ensnare. Always stand far enough away from operating machinery to prevent accidental contact resulting from mechanical or human error.

Additionally, the following basic personal protective measures must be observed: hard-hats must be worn to protect against bumps or falling objects. Goggles, face shields or other forms of eye protection must be worn when necessary to protect against chemicals or other hazards. Steel-toed safety shoes or boots are also required. The shoes must be chemically resistant or protected with appropriately selected boots/coverings where necessary. Unless otherwise specified, normal work clothes must be worn. Long sleeves and gloves are also required whenever necessary to protect against hazardous contact, cuts, abrasions

or other possible skin hazards. During pile driving activities double hearing protection is required (i.e. ear plugs and ear muffs)

### 3.2.2 *Excavations*

All provisions of the OSHA trenching and excavation standard (29 CFR 1926.650-52) must be followed during excavation activities. The estimated location of utility installations, such as sewer, telephone, electric, water lines and other underground installations that may reasonably be expected to be encountered during excavation work, must be determined prior to opening an excavation.

Excavations in contaminated or potentially contaminated areas must be tested for confined spaces atmospheric hazards prior to entry. Excavations should not be entered if other means are available to perform the task requiring entry. If entry into an excavation is required, the atmosphere within the space must be monitored by a trained person to assure that oxygen concentrations are greater than 19.5 percent and less than 23 percent, that combustible gas levels are less than 10 percent of the lower explosive limit (LEL), and that vapor levels are within applicable safe exposure (PEL) and Threshold Limit Values [TLV] limits.

A ladder or similar means of egress must be located in excavations greater than 4 feet in depth so as to require no more than 25 feet of lateral travel for employees. No person should be allowed to enter an excavation greater than 5 feet in depth unless the following conditions have been met:

- the walls of the excavation have been protected using an approved shield (trench box), an approved shoring system, or the walls have been sloped back to an angle of 34 degrees;
- the excavation is free of accumulated water; and
- the excavation has been tested for hazardous atmospheres as noted previously.

At all times the spoils pile and all materials must be placed at least 2 feet from the edge of the excavation to prevent the materials from rolling into the excavation. Personnel must remain at least 2 feet away from the edge of the excavation at all times. Upon completion of a test pit exploration, the excavation should be backfilled and graded. Excavations should never be left open unless absolutely necessary, and then only with proper barricading and controls to prevent accidental injury.

### 3.2.3 *Confined Space Entry*

Confined spaces may be encountered during the utility survey. If a confined space is encountered and entry is absolutely necessary, appropriate safety precautions must be taken in accordance with the company's safety and health program. Only confined space entry trained personnel will be allowed to perform such activities. Confined space entries should be avoided whenever possible. Trenches (greater than 4 feet in depth) and other excavations will require the air monitoring specified elsewhere in this plan.

Confined space entry means the potentially hazardous entry into any space which, by design, has limited openings for entry and exit, unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined spaces include, but are not limited to, storage vessels, sewers, tunnels, underground utility vaults, and pipelines. Other environments, which must be treated as confined spaces, include pits, basements, garages, warehouses and other indoor areas where mechanical (i.e. diesel, propane, gasoline or similarly powered) equipment must be operated for construction purposes. Excavations are considered confined spaces.

### 3.2.4 *Underground Utilities and Hazards*

The identification of underground storage tanks (USTs), pipes, utilities and other underground hazards is critically important prior to all excavating and other intrusive activities. In accordance with OSHA 29 CFR 1926.650, the estimated location of utility installations, such as sewer, telephone, electric, water lines and other underground installations that may reasonably be expected to be encountered during excavation work, must be determined prior to opening an excavation. Where public utilities may exist, the utility agencies or operators must be contacted directly or through a utility-sponsored service such as Dig Safe. Where other underground hazards may exist, reasonable attempts must be made to identify their locations as well. Failure to identify underground hazards can lead to fire, explosion, flooding, electrocution or other life threatening accidents. ERM will adhere its subsurface utility clearance policies.

### 3.2.5 *Overhead-Utilities and Hazards*

Overhead hazards can include low hanging structures, which can cause injury due to bumping into them. Other overhead hazards include falling objects, suspended loads, swinging loads and rotating equipment. Hard-

hats must be worn by personnel in areas where these types of physical hazards are encountered. Barriers or other methods must also be used to exclude personnel from these areas where appropriate. Electrical wires are another significant overhead hazard. According to OSHA (29 CFR 1926.550), the minimum clearance, which must be maintained from overhead electrical wires, is 10 feet from an electrical source rated less than 50 kilovolts (kV). Sources rated greater than 50 kV require a minimum clearance of 10 feet plus 0.4 inches per kV above 50 kV.

### 3.2.6 *Pedestrian Traffic*

The uncontrolled presence of pedestrians on a drilling or excavation site can be hazardous to both pedestrians and site workers. Prior to the initiation of site activities, the site should be surveyed to determine if, when and where pedestrian may gain access. This includes walkways, parking lots, gates and doorways. Barriers or caution tape should be used to exclude all pedestrian traffic.

### 3.2.7 *Vehicle Traffic*

All vehicular traffic routes, which could impact worker safety, must be identified and communicated. Barriers will be established to prevent injury from moving vehicles and all workers will be reminded daily and must be aware of on-site vehicular traffic. OSHA (29 CFR 1926.201) specifies that when signs, signals or barricades do not provide adequate protection from highway or street traffic, flag persons must be utilized. Flag persons must wear red or orange garments. Garments worn at night must be reflective. Provisions must be made for pedestrian and traffic control.

### 3.2.8 *Noise*

Noise exposure can be affected by many factors, including the number and types of noise sources (continuous versus intermittent or impact), and the proximity to noise intensifying structures such as walls or building which cause noise to bounce back or echo. The single most important factor effecting total noise exposure is distance from the source. The closer one is to the source the louder the noise will be. The operation of a drill rig, pile driving equipment, backhoe or other mechanical equipment can be sources of significant noise exposure. In order to reduce the exposure to this noise, personnel working in areas of excessive noise must use hearing protection (earplugs or earmuffs).

### 3.2.9 *Heat and Cold Stress*

Overexposure to temperature extremes can present significant risks to personnel if simple precautions are not observed. Typical control measures designed to prevent heat stress include dressing properly, drinking plenty of the correct types of fluids, and establishing an appropriate work/break regimen. Typical control measures designed to prevent cold stress also include dressing properly, and establishing an appropriate work/break regimen. The SSHS and Site Superintendent must assure that the appropriate heat and cold stress control measures are implemented.

### 3.2.10 *Fire and Explosion*

The possibility of flammable materials being encountered during field activities must be recognized and the appropriate steps necessary to minimize fire and explosion must be observed. This includes situations where excessive organic vapors or free product are encountered. When this occurs, monitoring with a combustible gas indicator (CGI) is required.

Excessive organic vapors, for the purposes of initiating the use of a CGI, are defined as sustained readings (i.e., continuous for at least 5 minutes) at or above 250 units or as an instantaneous reading at or above 1,000 units on the PID, in close proximity (i.e. within 1 foot or less) of the excavation or other area of potential exposure.

In situations where flammable materials (e.g. gasoline, acetylene cylinders, hexane, and methanol) are used on site, the following precautions must be observed:

- keep flammable and combustible materials away from heat, sparks and open flames;
- do not smoke around flammable or combustible materials;
- keep all flammable and combustible liquids in approved and properly labeled safety containers and segregate all flammable materials from other incompatible materials such as oxidizers.

### 3.2.11 *Fire Protection*

Contractors must comply with the following requirements as applicable:

- Fire Prevention, 29 CFR 1926.15 1: Electrical wiring and equipment for light, heat or power purposes are to be installed in compliance with the

National Electrical Code. Portable battery-powered lighting equipment used in connection with the storage, handling or use of flammable gases or liquids are to be the type approved for the hazardous location.

- Fire Extinguishers, 29 CFR 1926.150(c): Contractors are to ensure that at least one ten-pound-capacity type ABC fire extinguisher is provided within 100 feet of each work areas. Fire fighting equipment is to be periodically inspected and maintained in operating condition. Extinguishers subject to freezing are to be protected from freezing.
- Fuel Cans, 29 CFR 1926.351: Approved self-closing safety cans with flame arrest protection are to be used when necessary for dispensing small quantities of fuel.

### 3.3 *BIOLOGICAL HAZARDS*

Potential biological hazards for all sites include poisonous plants, insects or other animals that carry disease (i.e. Lyme disease, rabies) or venom (i.e. bees, snakes, spiders).

#### 3.3.1 *Insects*

Insects represent significant sources (vectors) of disease transmission. Therefore, precautions to avoid or minimize potential contact should be considered prior to all field activities. Disease or harmful effects can be transmitted through bites, stings or through direct contact with insects or through ingestion of foods contaminated by certain insects. Examples of disease transmitted by insect bites include encephalitis and malaria from contaminated mosquitoes, Lyme disease and spotted fever from contaminated ticks. Stinging insects, such as bees and wasps, are prevalent throughout the country, particularly during the warmer months. The stings of these insects can be painful, and cause serious allergic reactions to some individuals.

#### 3.3.2 *Lyme Disease*

Lyme disease is an infection caused by the bite of certain ticks, primarily deer, dog and wood ticks. The symptoms of Lyme disease usually start out as a skin rash then progress to more serious symptoms. The more serious symptoms can include lesions, headaches, arthritis and permanent damage to the neurological system. If detected early the disease can be treated successfully with antibiotics. The following steps are



recommended for prevention of Lyme disease and other diseases transmitted by ticks:

- Beware of tall grass, bushes, woods and other areas where ticks may live;
- Wear good shoes, long pants tucked into socks, a shirt with a snug collar, good cuffs around the wrists and tails tucked into the pants. Insect/tick repellents may also be useful; and
- Carefully monitor for the presence of ticks. Carefully inspect clothes and skin when undressing. If a tick is attached to the skin it should be removed with fine-tipped tweezers. You should be alert for early symptoms over the next month or so. If you suspect that a tick has bitten you, you should contact a physician for medical advice.

### 3.3.3 *Poisonous Plants*

The possible presence of poisonous plants should be anticipated for field activities in wooded or heavily vegetated areas. Contact with poison ivy, poison oak and sumac result in an intensely itching skin rash and characteristic blister-like lesions. Contact with these plants should be avoided.

### 3.3.4 *Rats, Snakes and Other Vermin*

Certain animals, particularly those that feed on garbage and other wastes, can represent significant vectors of disease transmission. Therefore, precautions to aid and/or minimize potential contact with (biting) animals (such as rats) or animal waste (such as pigeon droppings) should be considered prior to all field activities. Rats, snakes and other wild animals can inflict painful bites. The bites can be poisonous (as in the case of some snakes), or disease causing (as in the case of rabid animals). Avoidance of these animals is the best protection.

## 4.0

## *MONITORING*

Air monitoring falls into two separate categories:

- direct reading/exclusion zone monitoring.
- and personal exposure monitoring.

Exclusion zone monitoring is conducted in order to evaluate potential airborne hazards on a "real time" basis so that action levels specified in this HASP can be implemented. Personal exposure monitoring is conducted as part of a company's own HASP in order to establish a database of occupational exposure for OSHA compliance purposes. This HASP addresses only exclusion zone monitoring.

### 4.1

### *EXCLUSION ZONE MONITORING*

The exclusion zone monitoring required for the site will be conducted using the direct reading instruments as indicated in the table below. The data provided by these instruments can be used to determine the appropriate control actions and personal protective equipment requirements.

Equipment calibration must be performed in accordance with the manufacturer's instructions. Field checks using the appropriate reference standards must be made on site at the minimum frequency of twice per shift (pre and post sampling). A daily log of all instrument readings, as well as all field reference checks and calibration information must be maintained.

The following table summarizes the types of environmental monitoring, the required frequencies and the appropriate response actions applicable to this site:

<b>Chemical Identification</b>	<b>Instrument Type</b>	<b>Monitoring Frequency</b>	<b>Instrument Reading</b>	<b>Response Action</b>
Total VOCs	PID	Continuously during intrusive activities or confined space entries.	0- 10 units 10-100 units >100 units	Level D Level C Level B
Dust	MIE Real-time Aerosol Monitor	Upwind and downwind during excavation activities	0.0004mg/m <sup>3</sup> 0.15 mg/m <sup>3</sup>	Implement dust controls and potential use respirators
<b>Confined Space Entry</b>				
LEL	CGI or LEL/O <sub>2</sub> meter	Continuously during intrusive activities or confined space entries.	>10% LEL	Entry prohibited. Determine source of elevated LEL and implement controls prior to entry.
Oxygen	O <sub>2</sub> meter	Continuously during intrusive activities or confined space entries.	<20.9% (O <sub>2</sub> deficient) or >23% (O <sub>2</sub> rich)	Entry prohibited. Determine source of elevated LEL and implement controls prior to entry.

#### 4.1.1 *Total VOCs*

A photoionization detector (PID), equipped with a 10.2 eV or an 11.7 eV lamp, calibrated with isobutylene and referenced to benzene in air, will be used to monitor the general area and the breathing zone of workers during intrusive activities and to assess the potential presence of organic vapors.

#### 4.1.2 *Confined Space Entry*

Air monitoring for excavations and confined space entries must be conducted in accordance with the information provided below. If a confined space is encountered and entry is absolutely necessary, the SHSC must be notified to coordinate the entry. Only confined space entry trained personnel will be allowed to perform such activities. Confined

space entries should be avoided whenever possible. Trenches (greater than 4 feet in depth) and other excavations will require the air monitoring specified in the table in Section 4.1.

Monitoring of confined spaces must be conducted in the following order only:

1. oxygen (O<sub>2</sub> meter)
2. explosive/combustible atmospheres (CGI/LEL meter)
3. other toxics (VOCs, H<sub>2</sub>S)

Confined space entry monitoring must be continuous during the entire entry. Action levels for confined space entry monitoring are provided in the table in Section 4.1.

### **4.1.3 *Dust Monitoring***

Dust (PM-10) monitoring with an MIE Real-time Aerosol Monitor will be performed during all excavation and soil movement activities (e.g. loading, backfilling, etc.). Upwind and downwind dust monitoring locations will be determined on a daily basis. Since wind directions can change daily, the upwind and downwind locations will coincide with the excavation area, as applicable. Additionally, dust monitoring will be performed next to the excavation area. Personal exposure monitoring will be implemented if PM-10 levels are detected in the excavation area above action levels during site cleanup or other remedial activities.

Background values will be established prior to commencement of work. An increase of dust concentration, measured in mg dust/cubic meter, of approximately 25% above background levels, for a period of 15 minutes, is the action level.

Exceedance of the action levels may trigger one or more of the following actions:

- a work stoppage or change in intrusive activities
- use of water to suppress dust
- the use of respirators by construction personnel
- public notification to the Town of Wayland Board of Health

## 4.2

### *MITIGATIVE MEASURES FOR CONTROL OF EMISSIONS*

Based on odors and/or results of air monitoring, vapor emissions resulting from site operations may need to be suppressed. Appropriate mitigative measures would include ceasing operations until the cause of the emissions is identified and controlled. Vapor control measures may include immediate backfilling of the excavation, use of vapor suppression foams, and covering of exposed soil piles with polyethylene or tarps. Dust emissions control actions may consist of applying a water spray to the source area.

## 4.3

### *PERSONAL EXPOSURE MONITORING*

Personal exposure monitoring for the purpose of determining individual time-weighted average exposures may be required for specific operations or activities. Although the data provided by the real-time instruments specified above can be used to determine the appropriate control actions and personal protective equipment requirements, the data may be inappropriate for use in determining employee time-weighted average exposures as required by specific OSHA regulations.

According to 29 CFR 1910.120 personal exposure monitoring for the purpose of determining individual time-weighted average exposures is required only during site cleanup or other remedial activities. However, there are other compound-specific OSHA regulations requiring personal exposure monitoring. Contractors must assess the need for conducting personal exposure monitoring based specifically for their individual employees operations and anticipated exposures.

The following table specifies the initial level of protection required for each task. The table is arranged according to major project tasks. The personal protection requirements are based on the anticipated chemical and physical hazards, past uses of the site and potential exposure routes (i.e., inhalation, skin contact, and ingestion). **Personnel will be required to upgrade levels of protection based on the air monitoring results.** The SSHS and the Site Manager will determine the level of protection and will inform all other personnel.

<b>Task</b>	<b>Initial Level of Protection</b>
General site work - <b>No contact hazards</b> (utility survey, contractor oversight, traffic/pedestrian control).	Level D
General site work - <b>Contact hazards</b> (all intrusive activities, dewatering activities, soil and groundwater sampling and all other tasks involving potential contact with soil or groundwater).	Modified Level D
Chemical Oxidation Activities - Personnel Protective Equipment will be donned to address hazards associated with the injection of oxidant.	Modified Level D
Excavation Activities - Equipment Operators (provided that the operators remain inside of the equipment). Operators would be required to don Level C PPE if required based on air monitoring results.	Modified Level D

Personal protective equipment will be donned as described below for the activities described in the table above. Based on available analytical data and anticipated activities, it is assumed that most activities will require Level D or Modified Level D PPE with contingencies for Level C PPE. Levels of protection for the tasks not included in the table above will be determined by the SSHS in consultation company safety and health officials.

### 5.1 **LEVEL D**

Level D PPE is defined as the following, or similar, equipment:

- Hard-hat;

- Work clothes;
- Steeled-toed work boots;
- Hearing protection (if necessary);
- Eye protection; and
- Reflective orange vest if working on or near public roadways.

## 5.2 *MODIFIED LEVEL D*

Modified Level D is specified where there is a contact hazard but not an inhalation hazard. Modified Level D PPE is defined as the following, or similar:

- Hard-hat;
- **Tyvek coveralls** over work clothes;
- Steel-toed work boots;
- **Nitrile gloves (or equivalent);**
- Hearing protection (if necessary);
- Eye protection; and
- Reflective orange vest if working on or near public roadways.

If the potential exists for contact with liquids, personnel will be required to wear a coated chemical protective suit (e.g., polycoated tyvek, Saranex, etc.).

## 5.3 *LEVEL C*

Based on specific activities, air monitoring results and/or the presence of unanticipated dusty conditions, Level C respiratory protection may be required. Level C PPE is defined as the following, or similar:

- Hard-hat;
- Tyvek coveralls over work clothes;

- Steel-toed work boots with **disposable boot covers**;
- Nitrile gloves (or equivalent);
- Hearing protection (if necessary);
- Eye protection;
- Reflective orange vest if working on or near public roadways; and
- **Full-face air purifying respirator with combination High Efficiency Particulate (HEPA)/organic vapor/acid gas cartridges.**

If the potential exists for contact with liquids, personnel will be required to wear a coated chemical protective suit (e.g., polycoated tyvek, Saranex, etc.).

All personnel who will be required to wear air-purifying respirators must have been qualitatively or quantitatively fit-tested for the particular brand and size respirator he/she will be wearing on-site. Normal eyeglasses cannot be worn under full-face respirators because the temple bars interfere with the face seal. As a result, special spectacle inserts designed for use with respirators must be available for workers requiring corrective lenses. Each contractor required to wear respirators must have procedures for selecting, using and maintaining said respirators.

## 5.4

### *LEVEL B*

If air monitoring results indicate the need to go to Level B protection, the SSHS must be notified in order to evaluate the situation. Engineering controls may be implemented in lieu of Level B PPE; however, additional air monitoring must be conducted after the implementation of the engineering control and prior to the re-entry of site personnel to determine the effectiveness of the control.

Site-specific training in the use and limitations of Level B protection must be conducted prior to the use of Level B on site. Training will also include a review of the revised emergency procedures. Level B PPE will consist of the Modified Level D PPE, plus:

- A full-face, positive-pressure, demand-mode, supplied air breathing apparatus or equivalent



*LEVEL A*

In situations where the type of chemical, concentration and potential exposure route are not known, the SSHS must be notified in order to evaluate the situation for upgrade for Level A PPE. Engineering controls may be implemented in lieu of Level A PPE; however, additional air monitoring must be conducted after the implementation of the engineering control and prior to the re-entry of site personnel to determine the effectiveness of the control.

Site-specific training in the use and limitations of Level A protection must be conducted prior to the use of Level A on site. Training will also include a review of the revised emergency procedures. Level A PPE will consist of the Modified Level D PPE, plus:

- A full-face, positive-pressure, demand-mode, supplied air breathing apparatus or equivalent; and
- Fully encapsulating chemical-resistant suit.

To minimize both exposure of unprotected personnel and migration of contamination due to tracking by personnel or equipment, work areas where intrusive site activities will be conducted be clearly identified with appropriate equipment such as caution tape, fencing, or similar equipment. Work areas or zones will be established as suggested in the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, November, 1985. This document recommends the area surrounding each of the work areas to be divided into three zones whenever possible and plausible:

- the exclusion zone or "Hot" zone;
- contamination reduction zone (CRZ);
- and the support zone.

**6.1*****EXCLUSION ZONE***

Each exclusion zone will consist of the active work areas where site activities are taking place. A 15-foot radius will be established as the typical perimeter of the zone; however, this may be modified as necessary in order to protect unprotected personnel from chemical or physical hazards that may occur as a result of site operations. The perimeter of the zone will be marked with brightly colored hazard tape. All personnel entering these areas must wear the prescribed level of protective equipment.

**6.2*****CONTAMINATION REDUCTION ZONE***

Each contamination reduction zone (CRZ) will be a passageway between the exclusion and support zones. The CRZ is where personnel will begin the sequential decontamination process when exiting the exclusion zone. To prevent cross contamination and for accountability purposes, all personnel must enter and leave the exclusion zone through the CRZ.

### 6.3 *SUPPORT ZONE*

The support zone will coincide with the project site trailer (if applicable) and/or equipment staging area, and will consist of an area outside the exclusion zone and CRZ where support vehicles and equipment will be staged, and other general site activities will be conducted.

### 6.4 *OTHER SITE CONTROL AND SAFETY MEASURES*

The following measures are designed to augment the specific health and safety guidelines provided in this plan:

- The "buddy system" will be used at all times by all personnel. No one is to perform exclusion zone work alone. The standby team member must be intimately familiar with the procedures for initiating an emergency response.
- Avoidance of contamination is of the utmost importance. Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces or materials. Walk around (not through) puddles and discolored surfaces. Do not kneel on the ground or set equipment on the ground. Protect air-monitoring instruments from water by either using either the instrument in the provided case or by wrapping the instrument in plastic if a case is not provided. If the instrument is wrapped in plastic, openings are made in the bag for sample intake and exhaust.
- Hands and face must be thoroughly washed upon leaving the work area and before eating, drinking or any other activities.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited except in the support zone after proper decontamination.
- Beards or other facial hair that interfere with respirator fit are prohibited for anyone who is required to wear a respirator.
- The use of alcohol or drugs is prohibited during the conduct of field operations. Working under the influence of prescription drugs or over-the-counter medication that may cause drowsiness or loss of alertness is also prohibited.

- All equipment must be decontaminated or discarded, as designated by the SSHS before leaving the site.
- Safety equipment (PPE) described in Section 5.0 will be required for all field personnel unless otherwise approved by the SSHS.

## 6.5

### *SITE SECURITY*

The Site Manager is responsible for identifying the presence of all employees on site. A Sign-in/Sign-out log will be maintained for this purpose or the information will be kept in the SSHS's field book.

Equipment left on site during off-hours must be locked, immobilized and/or otherwise secured to prevent theft or unauthorized use or access.

## 7.0

## DECONTAMINATION

Proper decontamination is required of **all personnel and equipment** before leaving the site. All materials and equipment used for decontamination must be disposed of properly. Clothing, tools, buckets, brushes, and all other equipment that is contaminated must be secured in drums or other containers and labeled. Clothing not completely decontaminated on site should be secured in plastic bags before being removed from the site.

## 7.1

### PERSONNEL DECONTAMINATION

Personnel decontamination will be accomplished by following a systematic procedure of cleaning and removal of PPE. Contaminated PPE such as boots and face shields will be rinsed free of gross contamination, scrubbed clean in a detergent solution and then rinsed clean. To facilitate this, a three-basin wash system will be set up on site. The wastewater will be transferred to drums, which will be labeled and left on site for disposal.

Disposable PPE, such as Tyvek coveralls, gloves, outer boots, etc. will be disposed of as general refuse. Respirators will be cleaned after each use with respirator wipe pads and will be stored in plastic bags after cleaning. Alternative chemical decontamination procedures, such as steam-cleaning field boots, may be used if available.

### 7.1.1

#### *Decontamination Sequence*

Steps required will depend on the level of protection worn in accordance with Section 5.0:

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots
6. Remove outer gloves

7. Remove Tyvek coveralls
8. Remove respirator, wipe clean and store
9. Remove inner gloves
10. Boots that have been decontaminated can be worn into the support zone.

## 7.2 *EQUIPMENT DECONTAMINATION*

Measures should be taken to prevent contamination of sampling and monitoring equipment. Sampling devices become contaminated, but monitoring instruments, unless they are splashed, usually do not. Once contaminated, instruments are difficult to clean without damaging them. Any delicate instrument that cannot be easily decontaminated should be protected while it is being used. Protect air-monitoring instruments from water by either using the instrument in the provided case or by wrapping the instrument in plastic if a case is not provided. If the instrument is wrapped in plastic, openings are made in the bag for sample intake and exhaust.

If solvents are used for decontamination of equipment all safety precautions specified on the manufacturer's warning label and MSDS must be observed. Solvents or rinsate generated during the decontamination process will be drummed, labeled, and disposed of with other substances from the site.

Wooden tools are difficult to decontaminate because they absorb chemicals. Wooden hand tools will be kept on site for the project duration and handled only by protected workers. At the end of the site activities, wooden tools will be discarded if they can not be decontaminated properly.

The method generally used to decontaminate heavy equipment is to wash them with water under high pressure or to scrub accessible parts with detergent/water solution under pressure. Washwater from decontamination of backhoe buckets and related equipment will be collected for disposal.

Personnel conducting the decontamination must be adequately protected contaminated mists and aerosols can be generated. PPE, as specified in Section 5.0, must be worn, including Level C respiratory protection.

## **8.0            *MEDICAL MONITORING AND TRAINING REQUIREMENTS***

### **8.1            *MEDICAL***

All personnel covered by this HASP must be active participants in a medical monitoring program that complies with 29 CFR 1910.120(f). Each individual must have completed an annual surveillance examination and/or an initial baseline examination within the last year prior to performing any work on this site covered by this HASP. Each contractor is responsible for implementing and maintaining the medical monitoring program for its employees.

### **8.2            *TRAINING***

All personnel covered by this HASP must have completed the appropriate training requirements specified in 29 CFR 1910.1200 Hazard Communication and 29 CFR 1910.120(e). This requirement applies to individuals who may conduct work within and exclusion zone. Each individual must have completed an annual 8-hour refresher training course and/or initial 40-hour training course within the last year prior to performing any work on this site covered by this HASP. Also, at least one employee must be on site during all invasive site activities to act as the site manager and SSHS. This individual must have documentation of at least three days of supervised field experience as well as completion of the specified 8-hour training course for managers and supervisors.

### **8.3            *SUBCONTRACTORS***

Subcontractors will be required to provide specific written documentation prior to their performing any work on site that each individual assigned to this project has completed the medical monitoring and training requirements specified above.

### **8.4            *SITE SAFETY MEETINGS***

Prior to the commencement of on-site activities, a site safety meeting will be held to review the specific requirements of this HASP. Short safety refresher meetings will be conducted by the SSHS weekly or as needed throughout the duration of site activities. In addition, the SSHS will

ensure that site visitors have had the required training in accordance with 29 CFR 19 10.120 and will provide pre-entry safety briefings.



## 9.0 *EMERGENCY ACTION PLAN*

### 9.1 *GENERAL REQUIREMENTS*

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." Personnel covered by this HASP may not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion, or chemical exposure). The company's response actions will be limited to evacuation and medical/first aid as described within this section below.

The basic elements of an emergency evacuation plan include employee training, alarm systems, escape routes, escape procedures, critical operations or equipment, rescue and medical duty assignments, designation of responsible parties, emergency reporting procedures, and methods to account for all employees after evacuation.

#### 9.1.1 *Employee Information*

Employees must be instructed in the specific aspects of emergency evacuation applicable to the site as part of the site safety meeting prior to the commencement of all on-site activities. On-site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed.

#### 9.1.2 *Emergency Signal and Alarm Systems*

An emergency communication system must be in effect at all sites. The most simple and effective emergency communication system in many situations will be direct verbal communications. Each site must be assessed at the time of initial site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices can not be clearly perceived above ambient noise levels (i.e., noise from heavy equipment, backhoes, etc.) and anytime a clear line-of-sight can not be easlily maintained between all project personnel because of distance, terrain or other obstructions.

When verbal communications must be supplemented, emergency signals (using handheld airhorns or other devices) must be implemented. All site personnel are authorized to initiate an emergency evacuation.

The SSHS and the Site Manager will be responsible for accounting for all personnel onsite after an emergency evacuation has been conducted.

### 9.1.3 *Emergency Information*

Emergency Numbers:      Police: 911  
   Fire: 911  
   Ambulance: 911

Hospital:      Metro West Medical Center  
                                 67 Union Street  
                                 Natick, Massachusetts  
                                 (508) 650-7000 (main number)

Directions to Hospital:

**Travel time - Approximately 7.5 miles, 20 minutes.**

	<b>Total Miles</b>	<b>Directions</b>
1.	0.8	Turn left onto BOSTON POST ROAD heading east.
2.	1.0	Turn right onto Cochituate Rd/MA-126/MA-27
3.	1.2	Stay on Cochituate Rd/MA-27
4.	3.7	Cochituate Rd/MA-27 turns into Main Street/MA-27
5.	0.3	Turn left onto E. Central St./MA-135
6.	0.4	Turn right onto Union Street

### 9.1.4 *Incident Reporting Procedures*

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage requires an accident investigation and report. The investigation should be initiated as soon as emergency conditions are under control. The purpose of this investigation is not to attribute blame, but to determine the pertinent facts so that repeat or similar occurrences can be avoided.

The investigation should begin while details are still fresh in the mind of anyone involved. The person administering first aid may be able to start the fact gathering process if the injured are able to speak. Pertinent facts must be determined. Questions beginning with who, what, when, where,

and how are usually most effective to discover ways to improve job performance in terms of efficiency and quality of work, as well as safety and health concerns.

*Appendix F*  
*Spill Prevention, Control and*  
*Countermeasures Plan*

Raytheon Company

Spill Prevention Control and  
Countermeasures Plan

*Former Raytheon Facility  
430 Boston Post Road  
Wayland, Massachusetts*

6 November 2002

143.65

**Environmental Resources Management**  
399 Boylston Street, 6<sup>th</sup> Floor  
Boston, Massachusetts 02116

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***Figure 2      Facility Plan (Main Text)***

This Spill Prevention and Control Countermeasures (SPCC) Plan was prepared for the remedial investigation and remedial solution implementation activities at the former Raytheon facility in Wayland, Massachusetts. The anticipated activities include drilling of monitoring wells, implementation of chemical oxidation and excavation of wetland soil/sediment in accordance with the requirements of the Phase IV Remedy Implementation Plan and the Massachusetts Contingency Plan (MCP), 310 CMR 40.000.

This SPCC Plan applies to MCP activities. This plan is not intended to cover any manufacturing or facility activities. The Massachusetts Department of Environmental Protection (MA DEP) tracks this Site under Release Tracking Number (RTN) Tier IB Permit No. 133939. The Site location is shown on Figure 1.

Raytheon utilized the Site from 1955 to 1995 for electronic testing and chemical process research to support in-house prototype manufacturing. In 1995, Raytheon ceased operations and decommissioned the facility. The purpose of the assessment was to evaluate the potential for past release(s) of OHM to soil and/or ground water associated with historic facility operations. Identification of impacts to Site soil and ground water prompted notification of a release of OHM to the MA DEP in January 1996. Subsequent assessment and remedial actions proceeded in order to satisfy requirements of the MCP (310 CMR 40.0000).

In accordance with MCP requirements, a Phase I - Initial Site Investigation (Phase I) Report was filed with the MA DEP on 20 May 1996 (updated 30 January 1997). The Site was subsequently Tier Classified in May 1997 as a Tier IB "Disposal Site" and issued a permit (No. 133939) from the MA DEP to conduct additional assessment and remedial response actions under Phase II.

A Phase II Comprehensive Site Assessment Report, dated 28 November 2001, was prepared to document the nature and extent of contamination at the Site and to evaluate potential risks. Phase II results indicated that chlorinated Volatile Organic Compounds (VOCs) were present in both of the overburden aquifers and that wetland soil/sediment was impacted by Polychlorinated Biphenyls (PCBs), Polycyclic Aromatic Hydrocarbons (PAHs) and heavy metals.



A Phase III Remedial Action Plan, dated 28 November 2001, was prepared to evaluate and select a remedial alternative. The Phase III evaluation concluded that chemical oxidation was the preferred remedy to mitigate the migration of the VOC plume and that excavation impacted wetland soil/sediment was the preferred remedy to remediate the wetland area.

The intent of Phase IV is to abate impacts to Site wetlands soil/sediment and groundwater that potentially pose risk, as identified in the Phase II-Comprehensive Site Assessment (Phase II; ERM, 2001). The technologies proposed for implementation as part of Phase IV are those selected in the Phase III-Remedial Action Plan (Phase III; ERM, 2001).

## 2.0 *SITE DESCRIPTION*

### 2.1 *SITE LOCATION*

The Site is located at the former Raytheon facility in Wayland, Massachusetts. A Site location map is provided as Figure 1. The Sudbury River borders the Site to the west and Route 27 borders the Site to the east. The Great Meadows National Wildlife Refuge abuts the Site to the north. Access to the Site is via Boston Post Road (Route 20) to the south. Based on review of applicable United States Geologic Survey (USGS) topographic maps, the approximate geographic coordinates of the Site are 42° 21' 30.5" north latitude and 71° 22' 19.6" west longitude (TRCC, 1991). The approximate Universal Transverse Mercator (UTM) coordinates of the Site are Zone 19 304800 E 4692800 N (Figure 1).

### 2.2 *SITE ACTIVITIES*

Potential Site activities that will be taking place that are applicable under this plan may include:

- Drilling groundwater monitoring wells and groundwater injection wells
- Injecting chemical oxidant into groundwater
- Conducting groundwater monitoring activities and pumping tests
- Excavating approximately 3,700 yd<sup>3</sup> of wetland soil/sediment
- Restoring disturbed wetland area

### 2.3 *FACILITY DRAINAGE*

The portion of the Site that borders the Sudbury River is the area of concern. The area in which the chemical oxidation is to be conducted is a paved parking lot. The topography of the parking lot is relatively flat. Stormwater runoff from the parking lot is potentially toward Sudbury River.

The surface water drainage at the facility is identified on Figure 2 and consists of 40 catch basins located throughout the Site. Some catch basins are located in the vicinity of potential investigative and remedial areas. Drainage from the asphalt-paved parking lot is collected in the catch basins and then flows northwest to the discharge point at the wetland boundary adjacent to the Sudbury River.

Activities in the wetland are limited to excavation and restoration of the wetland. Heavy equipment will be used in the wetland, which is an activity of concern.

The following security measures are in place at the facility:

- The Site is currently an office development and does not require 24-hour security
- A fence has been installed between the facility parking area and the wetland to limit trespasser access
- Additional security measures will be implemented as needed

## 4.0 *SPILL PREVENTION MEASURES*

### 4.1 *STORAGE FACILITIES*

#### 4.1.1 *Bulk Storage*

No bulk storage of hazardous chemicals is proposed during remedial activities.

#### 4.1.2 *Container Storage*

The majority of hazardous materials to be brought on-site for the field work will be fuel for the drill rig and vector truck and small amounts of fuel to power generators for pumping wells.

Potassium permanganate and sodium permanganate are the chemical oxidants to be injected in the subsurface. Concentrated forms of the oxidant will be received on-site. The oxidants will be diluted with town water during the injection process. The oxidant will be temporarily stored on-site during the injection. Long-term storage of the oxidant is not anticipated.

Small quantities of hazardous chemicals (methanol) used for decontamination of drilling and monitoring equipment will be stored in small quantities (e.g., <1-gallon containers) and within the field vehicles.

Contaminated soils and groundwater that are generated during investigative activities will be collected in 55-gallon drums, roll-offs or cubic yard T-Packs for off-site treatment or disposal.

In order to minimize the potential for spills from the storage of hazardous materials, the following spill prevention measures will be in place:

- All containers containing hazardous materials will have secondary containment, which is capable of holding 110% of the volume of any one container in an area
- Spill response material will be located in close proximity to the container storage to allow for fast response and to minimize the impacts of any spills

- In instances when drill rigs or other trucks are to be fueled, they will be fueled off-site when possible. If that is not possible, spill control material will be in close proximity of the re-fueling and an ERM observer will monitor the task to insure that the tanks are not overfilled

ERM will ensure that all of its employees are fully briefed on the contents of this SPCC Plan prior to working at the facility.

ERM employees will be limited to first-response actions, such as:

- Notifying Site/Task Manager
- Notifying a cleanup contractor, if directed by Site/Task Manager
- Placing absorbent material to limit the impacts of any spills

Formal spill response and cleanup will be performed by spill response contractors for those spills beyond the capability of the Site staff to appropriately and safely respond to. In general, spills greater than 10-gallons or spills of extremely hazardous materials should be handled by qualified spill response contractors. The spill response contractors designated to respond to a hazardous material spill will have training in proper emergency response procedures. This training will generally include:

- Spill contingency procedures as defined by Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.120
- Proper use and disposal of all cleanup materials

Designated Site personnel will coordinate with subcontractors to perform emergency response procedures. A qualified emergency response contractor will be retained to take response actions above and beyond the training expertise of on-site personnel when spill conditions warrant such actions.

## 6.0 *SPILL REPORTING, RESPONSE AND CLEANUP*

### 6.1 *REPORTABLE SPILLS*

Discharges of OHM to the environment should be reported immediately to the Massachusetts Department of Environmental Protection (MA DEP) or state police.

The following table identifies various agencies/individuals, which may need to be notified in the event of a spill:

*Table 1. Emergency Notification Numbers.*

<b>Authority to Contact</b>	<b>Reason for Contact</b>	<b>Telephone Number</b>
MA DEP Regional Office	Hazardous Material spills to land or water (during regular working hours (9-5))	(978) 661-7681
State Police Communications Center	Hazardous Material spills to land or water (during non-working hours)	(888) 304-1133
Coast Guard	Hazardous Material spill to water	(617) 223-8480
Site/Task Manager	Hazardous Material spills to land or water (during regular working hours (9-5))	(617) 267-8377
Cyn Environmental	Emergency cleanup assistance	(800) 242-5818
Wayland Police and Fire Departments	Emergency notification	911

### 6.2 *SPILL REPORTING*

Following an accidental release, a report shall be made out by the Raytheon Site representative and/or qualified designee. The report shall contain the following information:

- Names, addresses and telephone numbers of those directly involved, including clean-up contractors
- Exact location of release, facility name, location, and owner



- Source of release
- Material released and estimated quantity
- Closest body of water to release and distance to surface water
- Brief summary of what happened, date and time of occurrence, and names of observers
- Action taken for cleanup
- Agencies notified

A copy of the accidental release report shall be sent to the MA DEP as well as the Wayland Fire Department.

### 6.3 *SPILL RESPONSE*

In the event of a spill, the ERM Site safety coordinator and/or their qualified designee will immediately direct all non-response personnel to remain in a safe location away from the spill site. The ERM Site safety coordinator and/or their designee will then immediately assess the magnitude of the spill and take appropriate actions to contain the spill. Particular care will be taken to ensure that no spilled materials run onto unpaved surfaces, into the Sudbury River or enter the stormwater drains.

The following specific containment and cleanup information is provided:

#### *Minor Spills (< 10 gallons)*

1. Prevent the spill from reaching the Sudbury River or stormwater drains by using absorbent pads/mats or an absorbent material.
2. Remediate the spill area according to all local, state, and federal regulations.

#### *Major Spills (> 10 gallons)*

1. Contain the spill or release to the smallest area possible using booms or any other effective barriers.
2. Notify Wayland Business Center immediately. They will in turn notify the appropriate officials and agencies as necessary. It will be the responsibility of the Raytheon Site Manager and/or his designee to ensure all appropriate notifications are made.

3. In the event that additional emergency cleanup assistance is required, Raytheon will request assistance from an appropriate response contractor (e.g., Cyn Environmental).
4. The emergency response contractor shall collect all hazardous waste discharged, including absorbent materials and contaminated booms. All cleanup materials shall be disposed of in accordance with all applicable hazardous waste regulations.
5. All reusable emergency equipment (e.g., personal protection equipment) will be decontaminated.
6. All contaminated wash water, waste solutions or residues generated during cleanup shall be collected and disposed of as hazardous waste, in compliance with all applicable local, state and federal regulations.
7. Raytheon and ERM shall keep all records relating to the spill of hazardous materials for a period of at least three years after the spill has been cleaned up or for such longer periods of time as required in any unresolved enforcement actions.

#### 6.4 *SPILL RESPONSE EQUIPMENT*

Spill response equipment maintained at the Site will include:

- Absorbent pads and mats
- Loose absorbent materials
- Containment booms
- Personal protection equipment (Level D, including protective suits, gloves and boots)
- Fire extinguishers
- First aid supplies

All of the above equipment shall be maintained and inspected monthly.