

**FILE COPY**

7 September 2007  
ERM Reference: 0051545

Brian Monahan  
Conservation Administrator  
Wayland Conservation Commission  
Town Building  
Wayland, MA 01778



Re: Inspection Report #6: 27 August through 7 September 2007,  
Clean Fill Certification and Transmittal of Analytical Data  
Former Raytheon Facility  
430 Boston Post Road  
DEP File No. 322-647

Dear Mr. Monahan:

Environmental Resources Management (ERM) is pleased to provide the Wayland Conservation Commission (Commission) with this Inspection Report for Northern Area Excavation activities at the Former Raytheon Facility at 430 Boston Post Road in Wayland, Massachusetts (Site). This report is submitted in accordance with the Order of Conditions for Massachusetts Department of Environmental Protection (DEP) File Number 322-647 dated 8 August 2006. Additionally, this report contains a clean fill certification and analytical laboratory data corresponding with sample results received during the past 10 days.

### ***INSPECTION REPORT #6***

Special Conditions 31 and 32 of the Town of Wayland Wetlands and Water Resources Permit Chapter 194 (Chapter 194) and Special Conditions 47 and 49 of Attachment A to the Wetlands Protection Act Form 5 Order of Conditions (WPA) require that a registered Professional Engineer perform weekly inspections of the work activities and certify in bi-weekly reports that those activities are in compliance with the Order of Conditions. The following information summarizes work performed between 27 August and 7 September 2007.

### *Work Performed During Period*

On 27 August the down gradient ends of two existing potholes within the excavation were further excavated approximately 2 feet and confirmation samples were collected. Activities were performed in response to detections higher than the required cleanup goal (Inspection Report #5, ERM 24 August). The dewatering sump was relocated in the process to drain water from the area to be excavated.

On 28 August, loading for transportation and off-site disposal commenced. Nineteen truckloads (approximately 700 tons) were hauled from Stockpile E (Figure 1) to Turnkey Recycling and Environmental Enterprises (Turnkey), a Waste Management facility in Rochester, New Hampshire. A police detail oversaw the egress of trucks from the Site.

Concurrently, an additional 2 feet of material were removed from the southern pothole (DE1) within the cofferdam due to confirmatory sample results from 27 August (Inspection Report #5, Appendix C) exhibiting detections higher than the required cleanup standard. A third DE1 sample was collected from the bottom of the pothole. The northern pothole did not require further excavation. Excluding the vicinity of DE1, the excavation was backfilled to 107 feet (ft) above mean sea level (ASL) using material from Stockpile B (soil excavated from 125 ft to 121 ft ASL, cleared for reuse via analytical data).

On 29 August, seven truckloads (approximately 250 tons) from Stockpiles D and E were transported to Turnkey. A police detail oversaw the egress of trucks from the Site. Backfilling of the excavation continued, using soil from Stockpile B. Additionally, construction of the infiltration gallery began with the placement of geotextile fabric and a layer of ¾-inch crushed stone.

On 30 August, analytical results from the third DE1 sample (28 August; Inspection Report #5, Appendix C) revealed detections of chlorinated volatile organic compounds (CVOCs) above the required cleanup standard. Excavation activities continued in the vicinity of DE1 in 1-foot increments until a photoionization detector headspace reading returned no detection of organic vapors. This was achieved at approximately 99 ft ASL, where the fourth and final DE1 sample was collected.

On 31 August, approximately 8 cubic yards of soil were removed at 99 ft ASL in the area around DE1. Analytical results from the fourth sample (Appendix C) revealed no further exceedance of the required cleanup standard at DE1, and the area was backfilled.

On 4 September, construction of the infiltration gallery was completed and the surrounding area was backfilled with remaining material from Stockpile B and additional material from Stockpile C (soil excavated from 125 ft to 121 ft ASL, cleared for reuse via analytical data).

On 5 September, approximately 700 tons of material from Stockpiles D, E and F were transported to Turnkey. A police detail oversaw the egress of trucks from the site. Also, the excavation was backfilled with approximately 800 cubic yards of soil from Stockpile C and clean fill from the adjacent Wayland Commons project.

Backfilling within the excavation continued on 6 September to approximately 119 ft ASL with material from Wayland Commons and approximately 110 cubic yards from Stockpile A (soil excavated from ground surface to about 125 ft ASL and cleared for reuse via analytical data). Approximately 525 tons of soil from Stockpile F were transported to Turnkey.

The sheet piles were prepared for removal on 7 September by removing the hanger bars and strain gauges. Approximately 180 tons of material from Stockpiles F and H were transported to Turnkey. The parking lot was mechanically swept throughout the day to clean areas formerly occupied by stockpiles.

The addition of backfill on 4 September eliminated the need for any further dewatering. Water pumped from the excavation is still contained in four fractionation tanks on Site pending US EPA approval of a Notice of Change (NOC) to the open Remediation General Permit (RGP) authorization. The NOC will allow discharge directly to the Sudbury River rather than the wetland, using a higher dilution factor for naturally-occurring metals concentrations in the groundwater. Acceptance of the NOC will enable water treatment to continue without expending resources altering the treatment system.

Alicia Kabir conducted the Professional Engineer's inspections on 30 August and 7 September. No issues were identified during the Site visits.

In addition to the major activities detailed above, several other tasks were completed as required by the Order of Conditions:

- Daily inspections of the sedimentation controls have been performed. Records of these inspections are kept with the Daily Site Logs in Appendix B. Sufficient supplies of silt fence and straw bales are

maintained on Site to allow for corrective action and maintenance activities per WPA Condition 50 and Chapter 194 Condition 42.

- Equipment is being refueled in accordance with the Refueling Plan provided in the Response to Order of Conditions as stipulated in WPA Condition 39 and the Amendment to Refueling Plan provided in Inspection Report #3. Sufficient spill containment supplies are maintained at the refueling area and near each piece of heavy equipment.

*Items Not in Conformance with Order of Conditions During Period*

- Items on Site were in conformance with the Order of Conditions during this reporting period.

**CLEAN FILL CERTIFICATION**

As required by WPA Condition 52, clean fill used to replace the VOC-impacted soil removed from the excavation had been certified clean by ERM prior to use. The clean fill was obtained from the Wayland Commons development project adjacent to the Site and formerly part of the Raytheon property. The soil was generated by grading activities conducted prior to improving the property. The property owner's mailing address is:

Mr. Robert Schelmerdeine  
Wayland Meadows Limited Partnership  
c/o Levco, Inc.  
145 Rosemary Street  
Needham, MA 02494

The optional analytical testing outline in WPA Condition 52 was conducted because of the proximity of the source property to the current project Site. Six samples were collected from the source stockpile on 23 August and submitted to Alpha Woods Hole Labs of Westborough, Massachusetts. The samples were analyzed for the following compounds per Table 1 of DEP Policy #COMM-97-001, "Reuse and Disposal of Contaminated Soil at Massachusetts Landfills" as referenced by WPA Condition 52:

- VOCs by US EPA Method 8260;



- Polychlorinated biphenyls (PCBs) by US EPA method 8082;
- Semi-volatile organic compounds (SVOCs) by US EPA method 8270C;
- Total petroleum hydrocarbons (TPH) by US EPA method GC-DRO;  
and
- Total metals: arsenic, cadmium, chromium, lead, and mercury.

Table 1 of DEP Policy #COMM-97-001 also includes analyses for conductivity and Toxic Characteristic Leaching Procedure (TCLP). Conductivity was not analyzed because of the dry, sandy nature of the soil (see grain size distribution analyses in Inspection Report #5). TCLP analyses were only to be performed if significant concentrations of any the compounds were detected.

Table 1 summarizes the results of these analyses and compares them to Massachusetts Contingency Plan (MCP) Reportable Concentrations (RCS-1), Method 1 soil standards (S-2 & GW-1) and the soil conditions existing prior to excavation. No VOCs, SVOCs, PCBs, or TPH were detected in any of the samples. Naturally-occurring arsenic, chromium, and lead were detected in each sample at levels similar to those identified in the soil samples collected from the excavation area prior to the commencement of excavation activities. Based on these data, the soil was determined to be suitable for use as clean fill.

The corresponding laboratory analytical reports for these samples were transmitted with Inspection Report #5 with the exception of the results of VOCs analyses. Those results are included in Appendix C of this report.

#### **TRANSMITTAL OF ANALYTICAL DATA**

As required by Chapter 194 Condition 24, analytical laboratory reports received in the past 10 days are attached as Appendix C. Laboratory reports include results from:

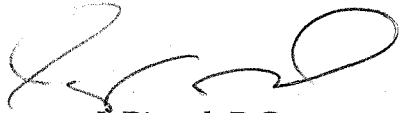
- Waste characterization samples from Stockpiles I and J collected on 21 August and 4 September;
- VOC results from clean fill certification samples collected 23 August;  
and

- Confirmation sample DE1 from the bottom of the southern pothole collected on 30 August.

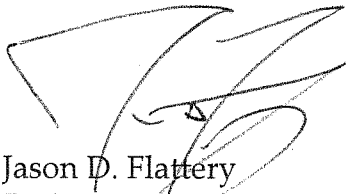
ERM will continue to comply with the Order of Conditions and will inform the Commission of any significant deviations of schedule or work plan.

If you have any questions or comments please contact the undersigned at (617) 646-7800.

Sincerely,



Jeremy J. Picard, P.G.  
*Senior Project Manager*

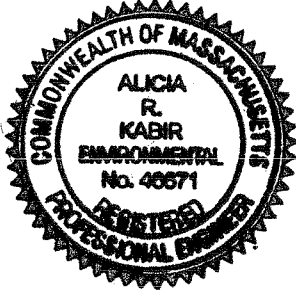


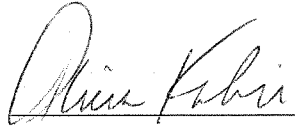
Jason D. Flattery  
*Project Engineer*

Enclosures:	Table 1	Clean Fill Analytical Results
	Figure 1	Stockpile Locations
	Appendix A	Site Photographs
	Appendix B	Daily Site Logs: 27 August to 7 September 2007
	Appendix C	Analytical Laboratory Reports

Cc: Louis Burkhardt, Raytheon Company  
Public Repositories  
Ben Gould, CMG Environmental

As required by WPA Conditions 47 and 49 and Chapter 194 Conditions 31 and 32, I certify based on my observations during Site visits on 30 August and 7 September 2007 and conversations with ERM field representatives that, to the best of my knowledge, work (except for any exceptions noted above) has been conducted in accordance with the Order of Conditions for DEP File Number 322-647.



  
Alicia Kabir, P.E.  
Professional Engineer  
MA License #46671

## *Tables*

**Table 1**  
**Clean Fill Analytical Results**  
**Former Raytheon Facility**  
**Wayland, Massachusetts**

Parameter	Date Collected	Reportable Concentration RCS-1	MCP Method 1 Soil Standard S-2 & GW-1	Pre-Excavation Soil Conditions (average <sup>1</sup> )	Clean Fill From Adjacent Property					
					CF-1 23-Aug-07	CF-2 23-Aug-07	CF-3 23-Aug-07	CF-4 23-Aug-07	CF-5 23-Aug-07	CF-6 23-Aug-07
<b>Volatile Organic Compounds (µg/kg)</b>										
Tetrachloroethene		1,000	1,000	816.7	< 4.6	< 4.8	< 4.8	< 4.6	< 4.8	< 5.0
Trichloroethene		300	300	8,505	< 4.6	< 4.8	< 4.8	< 4.6	< 4.8	< 5.0
cis-1,2-Dichloroethene		300	300	522.9	< 4.6	< 4.8	< 4.8	< 4.6	< 4.8	< 5.0
<b>Semi-Volatile Organic Compounds (µg/kg)</b>										
		NS	NS	ND	ND	ND	ND	ND	ND	ND
<b>Petroleum Hydrocarbons (mg/kg)</b>										
		200	200	ND <sup>2</sup>	ND	ND	ND	ND	ND	ND
<b>Polychlorinated Biphenyls (mg/kg)</b>										
		2	2	ND	ND	ND	ND	ND	ND	ND
<b>Metals (mg/kg)</b>										
Arsenic		20	20	5.3	6.4	6.3	5.5	5.4	6.0	5.8
Cadmium		2	30	ND	< 0.42	< 0.42	< 0.42	< 0.41	< 0.42	< 0.45
Chromium		30	200	16.0	10	9.5	8.1	8.6	9.1	11
Lead		300	300	5.5	7.4	4.0	3.1	3.4	6.5	4.7
Mercury		20	30	ND	< 0.08	< 0.08	< 0.08	< 0.08	< 0.09	< 0.09

Notes:

Only compounds with detectable results are tabulated.

µg/kg = Micrograms per kilogram (parts per billion [ppb]).

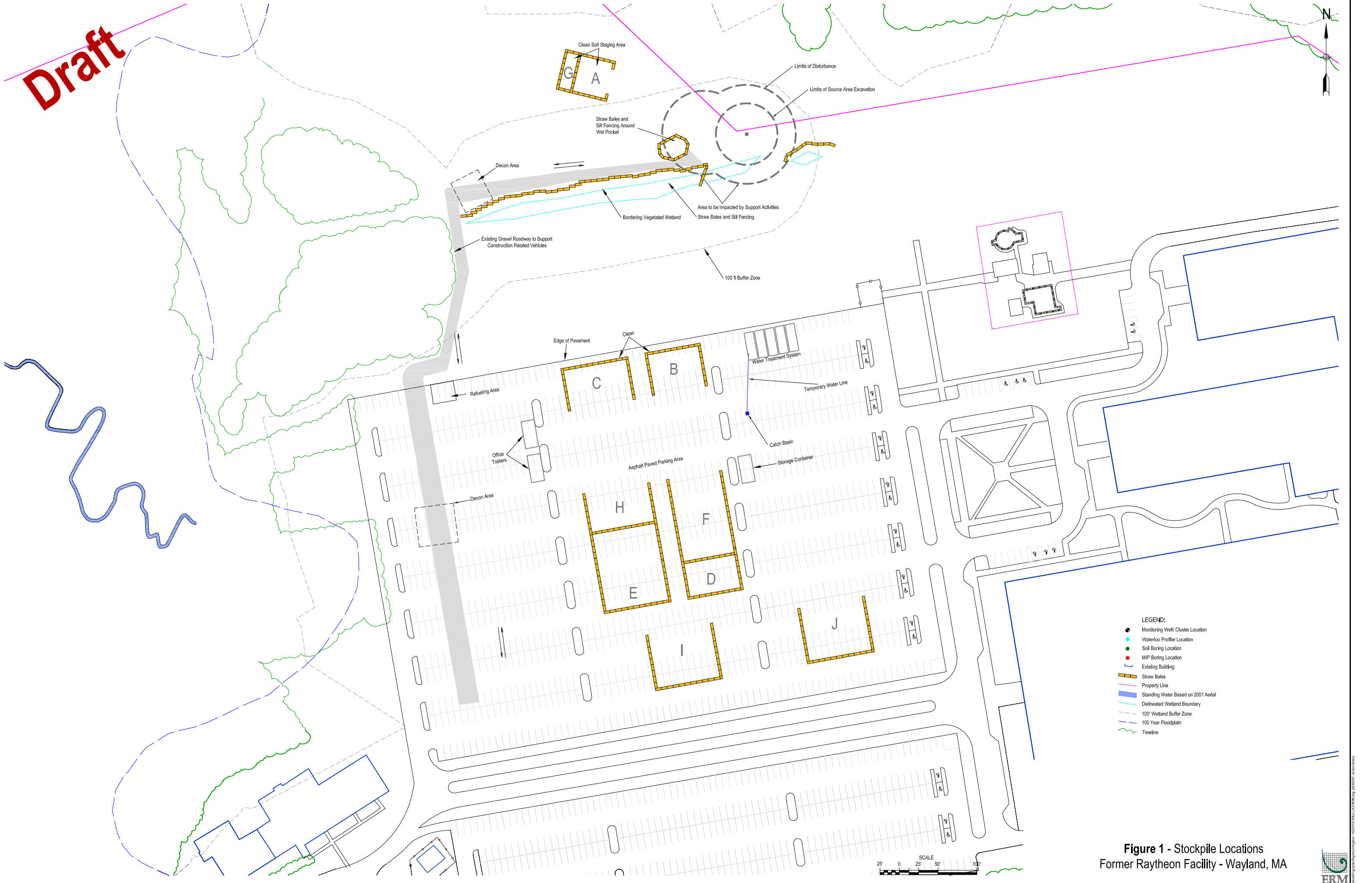
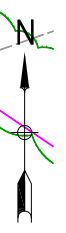
mg/kg = Milligrams per kilogram (parts per million [ppm]).

1 = Values reported as Pre-Excavation Soil Conditions are averages from samples SB-515, SB-522, SB-522A, SB-528, SB-530A, & SB-534B

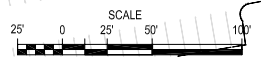
2 = Pre-Excavation Soil Conditions analyzed for extractable petroleum hydrocarbons.

## *Figures*

**Draft**



- LEGEND:**
- Monitoring Well/ Cluster Location
  - Waterloo Profiler Location
  - Soil Boring Location
  - MIP Boring Location
  - Existing Building
  - Straw Bales
  - Property Line
  - Standing Water Based on 2011 Aerial
  - Delineated Wetland Boundary
  - 100' Wetland Buffer Zone
  - 100 Year Floodplain
  - Tree Line



**Figure 1 - Stockpile Locations**  
Former Raytheon Facility - Wayland, MA



*Appendix A*  
*Site Photographs*





Photograph 1 – Loading Trucks for Off-Site Disposal



Photograph 2 – Final Area Excavated





Photograph 3 – Installation of Infiltration Gallery in Western Portion of Excavation



Photograph 4 – Backfilling Excavation





Photograph 5 – Sweeping Parking Lot and Former Soil Staging Areas



Photograph 6 – Backfilled to Approximately 119' ASL



*Appendix B*  
*Daily Site Logs:*  
*27 August – 7 September*

**DAILY SITE LOG**  
 Northern Area Excavation  
 Former Raytheon Facility  
 Wayland, Massachusetts



Date: 8/27/07  
 Start Time: 07:00 End Time: 15:30

Personnel

ERM: Bahaar Massihzadegan, Jason Flattery,  
John Drobinski

Other Personnel: MT: CJones, DSyiac, RMargiardi TPISANELLI  
Union: BMcCarthy, IHackett, AZaim, JMuto  
Newton Trucking: Re Vacca

Visitors: Mr HARTMAN (HARTMAN ENGINEERING)  
Jim Occhialini (ALPHA ANALYTICAL)

Equipment On Site

Type	Make/Model Operating Company	#	Operating Co. Number
<u>Loader</u>	<u>Komatsu WA 380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Caterpillar 307, 330, 345</u>	<u>-51, 75</u>	↓
<u>Generator</u>	<u>MW Power Whisperwatt</u>	<u>16, 14</u>	
<u>Welder</u>	<u>Lincoln 250</u>	<u>29</u>	
<u>Water Treatment System</u>		<u>45</u>	
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	
<u>Dump Truck</u>	<u>Mack Truck 10-wheeler</u>	<u>Vaca #77</u>	<u>Newton Trucking</u>

Describe Activities:

Collected samples from excavation. 2 "potholes" were dug in  
the area of CD23 and DE1. Sump was installed at  
greater depth.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



8/27/07

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Jason Flattery

(Signature):

DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 8/23/07  
Start Time: 06:30 End Time: 15:30

Personnel

ERM: JFLATTERY, BMASSIHZADEGAN, JPICARD

Other Personnel:

MT. CINES, RMANGIARDI, DSYRIAC, JIS  
UNION: BMCCARTHY, IHACKETT, AZAIM, JMUTO

Visitors:

AMERITECH ENVI (OFF-SITE TRUCKING)  
TAYLOR FUEL, NEWTON TRUCKING, HANDY HOUSE

Equipment On Site

Type	MOBEL Operating Company	Number
<u>LOADER</u>	<u>KOMATSU WA330</u> <u>MT</u>	
<u>EXCALATOR</u>	<u>CATERPILAR 307, 330, 345</u>	
<u>GENERATOR</u>	<u>MGP POWER WHISPERWATT</u>	
<u>WELDER</u>	<u>LINCOLN 250</u>	
<u>WATER TREATMENT SYSTEM</u>		
<u>SWEPPER</u>	<u>ELGIN PREMIER PELICAN</u> <u>SCANLON</u>	
<u>DUMP TRUCK</u>	<u>NEWTON TRUCKING</u>	<u>RE VACCA #77</u>
<u>TRAILER TRUCK</u>	<u>AMERITECH ENVIRONMENTAL</u>	<u>VARIOUS</u>

Describe Activities:

19 truckloads of soil from SP-E removed and transported  
to Turnkey in Rochester, NH

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts

8/28/07



Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

JASON FLATTERY

(Signature):



# DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 8/29/07  
Start Time: 06:30 End Time: 15:15

### Personnel

ERM: JASON FLATTERY, Holly Anzenberger, Jeremy Picard,  
John Drobiniski

Other Personnel: MT: CHRIS JONES, DICK SYRIAC, RICK MANGIARDI  
UNION: BILL MCCARTHY, ABDELGHANI ZAIMI, IVAN HACKETT, JOE MITO  
NEWTON TRUCKING (RE VACCA #77)  
AMERITECH ENVIRONMENTAL (OFF-SITE TRUCKING)

Visitors: Tony Pisanelli (MT), Scanlon Sweeper, Andrea  
Telford (MT)

### Equipment On Site

Type	MAKE/MODEL Operating Company	#	OPERATING Co. Number
<u>LOADER</u>	<u>KOMATSU WA380</u>	<u>-</u>	<u>MT</u>
<u>EXCAVATOR</u>	<u>CAT 330, 345, 307</u>	<u>51, 75, -</u>	<u> </u>
<u>GENERATOR</u>	<u>MGPPOWER WHISPERWATT</u>	<u>14, 16</u>	<u> </u>
<u>WELDER</u>	<u>LINCOLN 250</u>	<u>29</u>	<u> </u>
<u>WATER TREATMENT</u>	<u>-</u>	<u>45</u>	<u>↓</u>
<u>SWEeper</u>	<u>ELGIN PREMIER PELICAN</u>	<u>-</u>	<u>SCANLON</u>
<u>DUMP TRUCK</u>	<u>MACK TRUCK TEN-WHEELER</u>	<u>RE VACCA #77</u>	<u>NEWTON TRUCKING</u>
<u>TRAILER TRUCK</u>	<u>SEE TRUCK LOG →</u>		<u>AMERITECH ENVIRONMENTAL</u>

### Describe Activities:

7 truckloads from E (finished pile) and D. 13 truckloads  
from stockpile B were backfilled into the excavation. Parking  
lot was swept

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



8/29/07

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

No

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

JASON FLATTERY

(Signature):

# DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: B/30/07

Start Time: 06:30

End Time: 15:00

### Personnel

ERM: Bahaar Massihzaefegor, Holly Anzenberger, Alicia Kabiri, John Drobinski

### Other Personnel:

MT: C Jones, D Syriac, R Mongrardi  
Union: B McCarthy, A Zaim, T Hackett, J Muto  
Newton Trucking: Re Varra

### Visitors:

Chris Jones (Haley + Aldrich), Chip Burkhardt,  
Andrea Telford (MT), Taylor Fuel Oil (Delivery),  
Fea Ex (Delivery)

### Equipment On Site

Type	MAKE/MODEL Operating Company	#	OpCo. Number
<u>Loader</u>	<u>Komatsu WA 380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Cat 330, 345, 307</u>	<u>5, 75, -</u>	<u> </u>
<u>Generator</u>	<u>MQ Power Whisper watt</u>	<u>14, 16</u>	<u> </u>
<u>Welder</u>	<u>Lincoln 250</u>	<u>29</u>	<u> </u>
<u>Water Treatment System</u>		<u>45</u>	<u>↓</u>
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	<u>Scorton</u>
<u>Dump Truck</u>	<u>Mack truck 10-wheeler ReVarra #44</u>		<u>Newton Trucking</u>

### Describe Activities:

Installation of 3/4" crushed stone for infiltration gallery,  
some backfill from stockpile B used to grade excavation  
to 107' asl. One sample collected from excavation at 99' asl.  
Soil staged in Area K.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts

8/30



Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

BANAAR MASSIHZADEHAN

(Signature):

[Handwritten Signature]

# DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 8/31/07  
Start Time: 06:00

End Time: 14:00

### Personnel

ERM: BMassihzaeegan, HAnzenberger, C Regan, J Flattery

### Other Personnel:

MT: C Jones, D Syrial, R Mangardi  
Union: B McCarthy, A Zain, J Hackett, J Muto  
Newton Trucking: R Valca

### Visitors:

Chris Jones (Haley + Aldrich) and drilling crew

### Equipment On Site

Type	MAKE/MODEL <del>Operating Company</del>	#	DR. CO. Number
<u>Loader</u>	<u>Komatsu WA380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Caterpillar 330, 345, 307</u>	<u>51, 75, -</u>	↓
<u>Generator</u>	<u>MQ Power Whispermat</u>	<u>14, 16</u>	
<u>Welder</u>	<u>Lincoln 250</u>	<u>-</u>	
<u>Water Treatment System</u>	<u>-</u>	<u>45</u>	
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	
<u>Dump Truck</u>	<u>Mack Truck 10-wheeler ReVaca #44</u>	<u>-</u>	<u>Scanton Newton Trucking</u>

### Describe Activities:

Soil in vicinity of DE1 is removed at ~99 ar in 5' surrounding  
circle. Infiltration gallery is assembled on top of ~3' of crushed  
stone, initial layer of piping is assembled.

Note: Soil removed from DE1 is staged in Area K.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



8/31

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Bahaar Masshzaadegan

(Signature):

Bahaar

**DAILY SITE LOG**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 9/4/07  
Start Time: 07:00

End Time: 16:15

Personnel

ERM: BMassihzadegan, JFlattery, HAnzenberger, JDombinski

Other Personnel:

MT: C Jones, D Syriac, R Mangiardi  
Union: B McCarthy, A Zaim, T Hackett, J Muto  
Newton Trucking: Re Vacca

Visitors:

Taylor Fuel Oil, J. Dehiltini (Alpha), Hakey + Aldrich  
(Drilling team)

Equipment On Site

Type	MAKE/MODEL Operating Company	#	Op. Co. Number
<u>Loader</u>	<u>Komatsu WA380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Caterpillar 330, 345, 307</u>	<u>5/75.-</u>	↓
<u>Generator</u>	<u>MQ Power Whisperwatt</u>	<u>14, 16</u>	
<u>Welder</u>	<u>Lincoln 250</u>		
<u>Water Treatment System</u>		<u>45</u>	
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	<u>Scanlon</u>
<u>Dump Truck</u>	<u>Naack Truck 10-wheeler</u>	<u>Re Vacca #44</u>	<u>Newton Trucking</u>

Describe Activities:

Infiltration gallery is covered with additional crushed stone and  
backfill is loaded into excavation from Stockpile C. Installation  
of additional sump.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



9/4/07

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Bahaar Massinzadegan

(Signature):

Bahaar Massinzadegan



# DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 9/5/07  
Start Time: 06:00

End Time: 16:30

### Personnel

ERM: B Massihzadegan, J Flattery, H Anzenberger, J Picard

### Other Personnel:

MT: C Jones, D Syniac, R Mangardi  
Union: B Mcarthy, A Zaim, J Hackett, J Muto  
Newton Trucking: Re Vaca, Wal Scot

### Visitors:

Trucks transporting soil offsite (to Turnkey, Rochester, NY),  
Louis Burkhardt, Tony Pisanelli (MT)

### Equipment On Site

Type	MAKE/MODEL Operating Company	#	Op. Co. Number
<u>Loader</u>	<u>Komatsu WA380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Caterpillar 330.345.307 51.75,-</u>		
<u>Generator</u>	<u>MQ Power Whisperwatt 14,116</u>		
<u>Welder</u>	<u>Lincoln 25D</u>		
<u>Water Treatment System</u>		<u>45</u>	
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	<u>Scanlon</u>
<u>Dump Truck</u>	<u>Mack Truck 10-wheeler</u>		<u>Newton Trucking</u>

### Describe Activities:

Transportation and Disposal of Stockpile D, E, and F to Turnkey in Rochester, NH. Backfilling cofferdam with 33 loads from Intacela and 11 truckloads from Stockpile C. Sweeping parking lot.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



9/5/07

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Bahar Massinzadegan

(Signature):

*Bahar Massinzadegan*

# DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 9/6/07  
Start Time: 6:30 End Time: 15:30

### Personnel

ERM: B Massihzadegan, HANZENBERGER, J Flattery

Other Personnel: MT: C Jones, D Syriac, R Mongiardi  
Union: B McCarthy, A Zaim, J Hackett, J Muto

Visitors: Trucks transporting soil offsite to Turkey (Rochester, NH)  
Taylor Oil Co. (Delivery)

### Equipment On Site

Type	MAKE/MODEL Operating Company	#	Op. Co. Number
Loader	Komatsu WA 380	-	MT
Excavator	Caterpillar 330, 345, 307	5, 7, 5	
Generator	MQ Power Whisper watt	14, 16	
Welder	Lincoln 250		
Water Treatment System		45	↓
Sweeper	Elgin Premier Pelican	-	Scanlon
Dump Truck	Mack Truck 10-wheeler		Newton Trucking

### Describe Activities:

Continued backfilling of excavation using Intrepid soil  
and soil from Stockpile A ~108 yd<sup>3</sup>. 15 truckloads were  
taken from stockpile F and disposed of at Turkey in  
Rochester, NH.

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts

9/6/07



Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Bahar Masizadege

(Signature):

[Handwritten Signature]

DAILY SITE LOG

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



Date: 9/7/07  
Start Time: 06:00

End Time: 14:00

Personnel

ERM: B Massihzadegan, H Anzenberger

Other Personnel: MT: C Jones, D Syriac, R Mangiardi  
Union: B McCarthy, A Zaim, J Hackett, J Muto

Visitors: Trucks transporting soil off site to Turkey (Rohester, MA)

Equipment On Site

Type	MAKE/MODEL Operating Company	#	OP. CO. Number
<u>Loader</u>	<u>Komatsu WA 380</u>	<u>-</u>	<u>MT</u>
<u>Excavator</u>	<u>Caterpillar 330, 345, 307</u>	<u>5, 7, 5</u>	↓
<u>Generator</u>	<u>MQ Power Whisperwatt</u>	<u>14, 16</u>	
<u>Welder</u>	<u>Lincoln 250</u>		
<u>Water Treatment System</u>		<u>45</u>	
<u>Sweeper</u>	<u>Elgin Premier Pelican</u>	<u>-</u>	

Describe Activities: 6 TRUCKLOADS ~ 30-ton ea. (BTR)  
T & D of Stockpile F and H. B Detailing longer  
bars from sheetpile in preparation for pulling the pile

**EROSION AND SEDIMENTATION CONTROL INSPECTION**

Northern Area Excavation  
Former Raytheon Facility  
Wayland, Massachusetts



9/7/07

Are silt fence, hay bails and wooden stakes intact?

YES

Have soils/sediment been deposited in any wetland areas?

NO

If yes, was it removed and how? Please describe below.

N/A

Is there evidence of erosion along access road?

NO

If yes, please describe below.

Please note any corrective actions taken.

N/A

Field Supervisor Name (Printed):

Bahaar Massizadegan

(Signature):

[Handwritten Signature]

*Appendix C*  
*Analytical Laboratory Reports*

*Clean Fill Certification Samples:*

*23 August*

*Confirmation Samples:*

*30 August*

*Stockpile Samples:*

*20 & 21 August and*

*4 September*

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

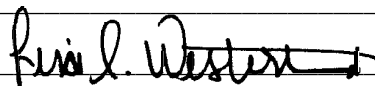
Client: ERM-New England Laboratory Job Number: L0712631  
Address: 399 Boylston Street Date Received: 22-AUG-2007  
6th Floor Date Reported: 11-SEP-2007  
Boston, MA 02116 Delivery Method: Alpha  
Attn: Jeremy Picard Site: NA SOIL INVESTIGATION  
Project Number: 0051545

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0712631-01	SP-I1-20070821-01	RAYTHEON WAYLAND
L0712631-02	SP-I2-20070821-01	RAYTHEON WAYLAND
L0712631-03	SP-I3-20070821-01	RAYTHEON WAYLAND
L0712631-04	SP-I4-20070821-01	RAYTHEON WAYLAND
L0712631-05	SP-I5-20070821-01	RAYTHEON WAYLAND
L0712631-06	SP-I6-20070821-01	RAYTHEON WAYLAND
L0712631-07	SP-J1-20070821-01	RAYTHEON WAYLAND
L0712631-08	SP-J2-20070821-01	RAYTHEON WAYLAND
L0712631-09	SP-J3-20070821-01	RAYTHEON WAYLAND
L0712631-10	SP-J4-20070821-01	RAYTHEON WAYLAND
L0712631-11	SP-J5-20070821-01	RAYTHEON WAYLAND
L0712631-12	SP-J6-20070821-01	RAYTHEON WAYLAND

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.

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Authorized by:   
Technical Representative



ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0712631

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The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

TCLP Semivolatile Organics

The WG292864-4 MS/MSD RPD for Pyridine is above method acceptance criteria.

TCLP Pesticides

The WG293042-4 MS/MSD RPD for Heptachlor is above method acceptance criteria.



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

Laboratory Sample Number: L0712631-01  
 SP-I1-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 14:47 SS
TCLP Extraction				1	1311	0823 17:00	
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	59.0	%	30-150				
Decachlorobiphenyl	68.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 18:43 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	73.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 13:51 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	66.0	%	30-150				
Decachlorobiphenyl	88.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 10:41 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	105	%	70-130				
Toluene-d8	97.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-01  
SP-I1-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 10:41	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	102	%	70-130				
Dibromofluoromethane	101	%	70-130				

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



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-02  
SP-I2-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 15:16 SS
TCLP Extraction				1	1311	0823 17:00	
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	60.0	%	30-150				
Decachlorobiphenyl	70.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 19:33 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	78.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 14:20 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	55.0	%	30-150				
Decachlorobiphenyl	86.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 11:18 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	105	%	70-130				
Toluene-d8	97.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-02  
SP-I2-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 11:18	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	101	%	70-130				

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





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

Laboratory Sample Number: L0712631-03  
SP-I3-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 15:44 SS
TCLP Extraction				1	1311	0823 17:00	
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	60.0	%	30-150				
Decachlorobiphenyl	71.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 20:22 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	71.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 14:48 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	72.0	%	30-150				
Decachlorobiphenyl	88.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 11:55 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	109	%	70-130				
Toluene-d8	96.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-03  
SP-I3-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 11:55	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	97.0	%	70-130				
Dibromofluoromethane	102	%	70-130				

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



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

Laboratory Sample Number: L0712631-04  
SP-I4-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 16:13 SS
TCLP Extraction				1	1311	0823 17:00	
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	58.0	%	30-150				
Decachlorobiphenyl	67.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 21:11 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	67.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 15:17 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	71.0	%	30-150				
Decachlorobiphenyl	88.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 12:34 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	5.7	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	110	%	70-130				
Toluene-d8	96.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-04  
SP-I4-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 12:34	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	98.0	%	70-130				

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



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

Laboratory Sample Number: L0712631-05  
 SP-I5-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 16:42 SS
TCLP Extraction				1	1311	0823 17:00	
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	61.0	%	30-150				
Decachlorobiphenyl	69.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 22:01 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	93.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 13:37 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	61.0	%	30-150				
Decachlorobiphenyl	55.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 13:12 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	110	%	70-130				
Toluene-d8	98.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-05  
SP-I5-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 13:12	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	102	%	70-130				
Dibromofluoromethane	102	%	70-130				

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





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

Laboratory Sample Number: L0712631-06  
SP-I6-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 17:11 SS
TCLP Extraction				1	1311	0823 17:00	
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	53.0	%	30-150				
Decachlorobiphenyl	68.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 22:50 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	78.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 14:05 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	56.0	%	30-150				
Decachlorobiphenyl	61.0	%	30-150				
TCLP Volatile Organics				1	8260B		0907 13:51 SE
TCLP Extraction				1	1311	0904 16:38	
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				
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	111	%	70-130				
Toluene-d8	96.0	%	70-130				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-06  
SP-I6-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Volatile Organics cont'd				1 8260B		0907 13:51	SE
TCLP Extraction				1 1311		0904 16:38	
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	101	%	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:	L0712631-07	Date Collected:	21-AUG-2007 11:35
	SP-J1-20070821-01	Date Received :	22-AUG-2007
Sample Matrix:	SOIL	Date Reported :	11-SEP-2007
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	1-Amber		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
<b>TCLP Metals</b>						
TCLP Extraction				1 1311	0823 17:00	
Arsenic, TCLP	ND	mg/l	1.0	1 6010B	0904 11:00	0904 14:40 MG
Barium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:40 MG
Cadmium, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:40 MG
Chromium, TCLP	ND	mg/l	0.20	1 6010B	0904 11:00	0904 14:40 MG
Lead, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:40 MG
Mercury, TCLP	ND	mg/l	0.0010	1 7470A	0904 15:00	0905 10:43 DM
Selenium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:40 MG
Silver, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:40 MG
<b>TCLP Semi-Volatile Organics</b>						
TCLP Extraction				1 8270C	0905 17:00	0908 23:26 HL
TCLP Extraction				1 1311	0823 17:00	
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	50.			
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	68.0	%		21-120		
Phenol-d6	77.0	%		10-120		
Nitrobenzene-d5	79.0	%		23-120		
2-Fluorobiphenyl	79.0	%		43-120		
2,4,6-Tribromophenol	88.0	%		10-120		
4-Terphenyl-d14	101	%		33-120		
<b>TCLP Pesticides by GC</b>						
TCLP Extraction				1 8082/8081	0905 18:45	0907 18:08 SS
TCLP Extraction				1 1311	0823 17:00	
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: L0712631-07  
 SP-J1-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 18:08 SS
TCLP Extraction				1	1311	0823 17:00	
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	59.0	%	30-150				
Decachlorobiphenyl	67.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0911 00:29 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	78.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 14:34 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	57.0	%	30-150				
Decachlorobiphenyl	59.0	%	30-150				

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



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

Laboratory Sample Number: L0712631-08  
 SP-J2-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 18:37 SS
TCLP Extraction				1	1311	0823 17:00	
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	65.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0911 01:18 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	73.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 15:02 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	60.0	%	30-150				
Decachlorobiphenyl	62.0	%	30-150				

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





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

Laboratory Sample Number: L0712631-09  
 SP-J3-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0905 18:45	0907 19:06 SS
TCLP Extraction				1	1311	0823 17:00	
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	64.0	%	30-150				
Decachlorobiphenyl	68.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0911 02:07 JB
TCLP Extraction				1	1311	0823 17:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	84.0	%					
TCLP PCBs by GC				1	8082	0905 20:30	0907 15:31 SS
TCLP Extraction				1	1311	0823 17:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	68.0	%	30-150				
Decachlorobiphenyl	62.0	%	30-150				

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



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0712631-10  
SP-J4-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0904 19:30	0905 21:34 SS
TCLP Extraction				1	1311	0831 16:00	
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	61.0	%	30-150				
Decachlorobiphenyl	58.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0904 20:00	0911 06:14 JB
TCLP Extraction				1	1311	0831 16:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	102	%					
TCLP PCBs by GC				1	8082	0904 17:30	0906 05:07 SS
TCLP Extraction				1	1311	0831 16:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	72.0	%	30-150				
Decachlorobiphenyl	82.0	%	30-150				

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



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

Laboratory Sample Number: L0712631-11  
 SP-J5-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0904 19:30	0910 11:02 SS
TCLP Extraction				1	1311	0831 16:00	
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	62.0	%	30-150				
Decachlorobiphenyl	62.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0904 20:00	0911 07:03 JB
TCLP Extraction				1	1311	0831 16:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	104	%					
TCLP PCBs by GC				1	8082	0904 17:30	0906 05:36 SS
TCLP Extraction				1	1311	0831 16:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	74.0	%	30-150				
Decachlorobiphenyl	78.0	%	30-150				

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



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

Laboratory Sample Number: L0712631-12  
 SP-J6-20070821-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
TCLP Pesticides by GC cont'd				1	8082/8081	0904 19:30	0905 22:31 SS
TCLP Extraction				1	1311	0831 16:00	
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	72.0	%	30-150				
Decachlorobiphenyl	62.0	%	30-150				
TCLP Herbicides by GC				1	8151A(M)	0904 20:00	0911 07:53 JB
TCLP Extraction				1	1311	0831 16:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery		QC Criteria				
DCAA	83.0	%					
TCLP PCBs by GC				1	8082	0904 17:30	0906 06:04 SS
TCLP Extraction				1	1311	0831 16:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	75.0	%	30-150				
Decachlorobiphenyl	86.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0712631

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
TCLP Metals for sample(s) 01-09 (L0712631-01, WG292771-1)					
Arsenic, TCLP	ND	ND	mg/l	NC	20
Barium, TCLP	ND	ND	mg/l	NC	20
Cadmium, TCLP	ND	ND	mg/l	NC	20
Chromium, TCLP	ND	ND	mg/l	NC	20
Lead, TCLP	ND	ND	mg/l	NC	20
Selenium, TCLP	ND	ND	mg/l	NC	20
Silver, TCLP	ND	ND	mg/l	NC	20
TCLP Metals for sample(s) 10-12 (L0712631-10, WG292772-1)					
Arsenic, TCLP	ND	ND	mg/l	NC	20
Barium, TCLP	ND	ND	mg/l	NC	20
Cadmium, TCLP	ND	ND	mg/l	NC	20
Chromium, TCLP	ND	ND	mg/l	NC	20
Lead, TCLP	ND	ND	mg/l	NC	20
Selenium, TCLP	ND	ND	mg/l	NC	20
Silver, TCLP	ND	ND	mg/l	NC	20
TCLP Metals for sample(s) 01-09 (L0712631-03, WG292791-3)					
Mercury, TCLP	ND	ND	mg/l	NC	
TCLP Metals for sample(s) 10-12 (L0712631-11, WG292792-3)					
Mercury, TCLP	ND	ND	mg/l	NC	



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

Laboratory Job Number: L0712631

Parameter	% Recovery	QC Criteria
TCLP Metals LCS for sample(s) 01-09 (WG292771-4)		
Arsenic, TCLP	110	75-125
Barium, TCLP	95	75-125
Cadmium, TCLP	110	75-125
Chromium, TCLP	100	75-125
Lead, TCLP	110	75-125
Selenium, TCLP	110	75-125
Silver, TCLP	100	75-125
TCLP Metals LCS for sample(s) 10-12 (WG292772-4)		
Arsenic, TCLP	120	75-125
Barium, TCLP	95	75-125
Cadmium, TCLP	110	75-125
Chromium, TCLP	110	75-125
Lead, TCLP	110	75-125
Selenium, TCLP	115	75-125
Silver, TCLP	110	75-125
TCLP Metals LCS for sample(s) 01-09 (WG292791-1)		
Mercury, TCLP	101	
TCLP Metals LCS for sample(s) 10-12 (WG292792-1)		
Mercury, TCLP	100	
TCLP Semi-Volatile Organics LCS for sample(s) 10-12 (WG292864-2)		
Hexachlorobenzene	78	40-140
2,4-Dinitrotoluene	63	24-96
Hexachlorobutadiene	40	10-100
Hexachloroethane	37	13-82
Nitrobenzene	43	40-140
2,4,6-Trichlorophenol	50	30-130
Pentachlorophenol	80	9-103
2-Methylphenol	42	30-130
3-Methylphenol/4-Methylphenol	43	30-130
2,4,5-Trichlorophenol	59	30-130
Pyridine	11	
Surrogate(s)		
2-Fluorophenol	40	21-120
Phenol-d6	52	10-120
Nitrobenzene-d5	43	23-120
2-Fluorobiphenyl	46	43-120
2,4,6-Tribromophenol	76	10-120
4-Terphenyl-d14	75	33-120
TCLP Semi-Volatile Organics LCS for sample(s) 01-09 (WG293023-2)		
Hexachlorobenzene	80	40-140
2,4-Dinitrotoluene	62	24-96
Hexachlorobutadiene	53	10-100

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0712631

Continued

Parameter	% Recovery	QC Criteria
TCLP Semi-Volatile Organics LCS for sample(s) 01-09 (WG293023-2)		
Hexachloroethane	45	13-82
Nitrobenzene	57	40-140
2,4,6-Trichlorophenol	62	30-130
Pentachlorophenol	63	9-103
2-Methylphenol	50	30-130
3-Methylphenol/4-Methylphenol	50	30-130
2,4,5-Trichlorophenol	65	30-130
Pyridine	32	
Surrogate(s)		
2-Fluorophenol	43	21-120
Phenol-d6	52	10-120
Nitrobenzene-d5	49	23-120
2-Fluorobiphenyl	57	43-120
2,4,6-Tribromophenol	66	10-120
4-Terphenyl-d14	73	33-120
TCLP Pesticides by GC LCS for sample(s) 10-12 (WG292865-2)		
Lindane	66	30-150
Heptachlor	69	30-150
Heptachlor epoxide	68	30-150
Endrin	102	30-150
Methoxychlor	81	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	52	30-150
Decachlorobiphenyl	54	30-150
TCLP Pesticides by GC LCS for sample(s) 01-09 (WG293042-2)		
Lindane	74	30-150
Heptachlor	74	30-150
Heptachlor epoxide	81	30-150
Endrin	124	30-150
Methoxychlor	102	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	47	30-150
Decachlorobiphenyl	67	30-150
TCLP Herbicides by GC LCS for sample(s) 10-12 (WG292866-2)		
2,4-D	118	
2,4,5-TP (Silvex)	49	
Surrogate(s)		
DCAA	67	

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0712631

Continued

Parameter	% Recovery	QC Criteria
TCLP Herbicides by GC LCS for sample(s) 01-09 (WG293099-2)		
2,4-D	114	
2,4,5-TP (Silvex)	48	
Surrogate(s)		
DCAA	56	
TCLP PCBs by GC LCS for sample(s) 10-12 (WG292863-2)		
Aroclor 1016	69	40-140
Aroclor 1260	102	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	63	30-150
Decachlorobiphenyl	102	30-150
TCLP PCBs by GC LCS for sample(s) 01-09 (WG293041-2)		
Aroclor 1016	59	40-140
Aroclor 1260	74	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	65	30-150
Decachlorobiphenyl	85	30-150
TCLP Volatile Organics LCS for sample(s) 01-06 (WG290025-7)		
Chloroform	103	70-130
Carbon tetrachloride	110	70-130
Tetrachloroethene	107	70-130
Chlorobenzene	104	75-130
1,2-Dichloroethane	108	70-130
Benzene	106	76-127
Vinyl chloride	98	70-130
1,1-Dichloroethene	108	61-145
Trichloroethene	107	71-120
1,4-Dichlorobenzene	101	70-130
2-Butanone	106	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130
Dibromofluoromethane	102	70-130
TCLP Metals SPIKE for sample(s) 01-09 (L0712631-01, WG292771-2)		
Arsenic, TCLP	110	75-125
Barium, TCLP	94	75-125
Cadmium, TCLP	110	75-125
Chromium, TCLP	100	75-125
Lead, TCLP	110	75-125
Selenium, TCLP	115	75-125

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0712631

Continued

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Parameter	% Recovery	QC Criteria
TCLP Metals SPIKE for sample(s) 01-09 (L0712631-01, WG292771-2)		
Silver, TCLP	100	75-125
TCLP Metals SPIKE for sample(s) 10-12 (L0712631-10, WG292772-2)		
Arsenic, TCLP	110	75-125
Barium, TCLP	95	75-125
Cadmium, TCLP	110	75-125
Chromium, TCLP	100	75-125
Lead, TCLP	100	75-125
Selenium, TCLP	105	75-125
Silver, TCLP	100	75-125
TCLP Metals SPIKE for sample(s) 01-09 (L0712631-03, WG292791-2)		
Mercury, TCLP	116	
TCLP Metals SPIKE for sample(s) 10-12 (L0712631-11, WG292792-2)		
Mercury, TCLP	121	

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

Laboratory Job Number: L0712631

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
<b>TCLP Semi-Volatile Organics for sample(s) 10-12 (L0712631-10, WG292864-4)</b>					
Hexachlorobenzene	82	84	2	30	40-140
2,4-Dinitrotoluene	66	66	0	30	24-96
Hexachlorobutadiene	46	48	4	30	10-100
Hexachloroethane	40	44	10	30	13-82
Nitrobenzene	50	52	4	30	40-140
2,4,6-Trichlorophenol	56	54	4	30	30-130
Pentachlorophenol	80	74	8	30	9-103
2-Methylphenol	50	48	4	30	30-130
3-Methylphenol/4-Methylphenol	49	48	2	30	30-130
2,4,5-Trichlorophenol	64	62	3	30	30-130
Pyridine	11	26	81	30	
Surrogate(s)					
2-Fluorophenol	47	43	9		21-120
Phenol-d6	59	57	3		10-120
Nitrobenzene-d5	49	48	2		23-120
2-Fluorobiphenyl	51	52	2		43-120
2,4,6-Tribromophenol	77	73	5		10-120
4-Terphenyl-d14	79	75	5		33-120
<b>TCLP Semi-Volatile Organics for sample(s) 01-09 (L0712631-01, WG293023-4)</b>					
Hexachlorobenzene	80	80	0	30	40-140
2,4-Dinitrotoluene	66	66	0	30	24-96
Hexachlorobutadiene	52	52	0	30	10-100
Hexachloroethane	44	44	0	30	13-82
Nitrobenzene	56	56	0	30	40-140
2,4,6-Trichlorophenol	60	60	0	30	30-130
Pentachlorophenol	68	66	3	30	9-103
2-Methylphenol	50	48	4	30	30-130
3-Methylphenol/4-Methylphenol	49	48	2	30	30-130
2,4,5-Trichlorophenol	66	66	0	30	30-130
Pyridine	45	35	25	30	
Surrogate(s)					
2-Fluorophenol	45	43	5		21-120
Phenol-d6	54	51	6		10-120
Nitrobenzene-d5	51	48	6		23-120
2-Fluorobiphenyl	58	55	5		43-120
2,4,6-Tribromophenol	73	69	6		10-120
4-Terphenyl-d14	75	76	1		33-120
<b>TCLP Pesticides by GC for sample(s) 10-12 (L0712631-10, WG292865-4)</b>					
Lindane	82	71	14	30	30-150
Heptachlor	85	76	11	30	30-150
Heptachlor epoxide	81	74	9	30	30-150
Endrin	121	110	10	30	30-150
Methoxychlor	98	89	10	30	30-150

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

Laboratory Job Number: L0712631

Continued

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
TCLP Pesticides by GC for sample(s) 10-12 (L0712631-10, WG292865-4)					
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	67	57	16		30-150
Decachlorobiphenyl	60	55	9		30-150
TCLP Pesticides by GC for sample(s) 01-09 (L0712631-02, WG293042-4)					
Lindane	50	66	28	30	30-150
Heptachlor	46	68	39	30	30-150
Heptachlor epoxide	67	77	14	30	30-150
Endrin	109	121	10	30	30-150
Methoxychlor	95	101	6	30	30-150
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	31	47	41		30-150
Decachlorobiphenyl	66	69	4		30-150
TCLP Herbicides by GC for sample(s) 10-12 (L0712631-10, WG292866-4)					
2,4-D	110	120	9		
2,4,5-TP (Silvex)	42	66	46		
Surrogate(s)					
DCAA	55	83	41		
TCLP Herbicides by GC for sample(s) 01-09 (L0712631-01, WG293099-4)					
2,4-D	110	110	0		
2,4,5-TP (Silvex)	45	47	5		
Surrogate(s)					
DCAA	55	58	5		
TCLP PCBs by GC for sample(s) 10-12 (L0712631-10, WG292863-4)					
Aroclor 1016	74	82	10	30	40-140
Aroclor 1260	102	109	7	30	40-140
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	79	67	16		30-150
Decachlorobiphenyl	80	78	3		30-150
TCLP PCBs by GC for sample(s) 01-09 (L0712631-01, WG293041-4)					
Aroclor 1016	74	72	3	30	40-140
Aroclor 1260	81	86	6	30	40-140
Surrogate(s)					
2,4,5,6-Tetrachloro-m-xylene	70	67	4		30-150
Decachlorobiphenyl	88	90	2		30-150

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0712631

Continued

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
TCLP Volatile Organics for sample(s) 01-06 (L0710794-06, WG290025-2)					
Chloroform	102	97	5	20	70-130
Carbon tetrachloride	101	94	7	20	70-130
Tetrachloroethene	93	89	4	20	70-130
Chlorobenzene	99	96	3	20	75-130
1,2-Dichloroethane	109	99	10	20	70-130
Benzene	92	87	6	20	76-127
Vinyl chloride	86	82	5	20	70-130
1,1-Dichloroethene	102	91	11	20	61-145
Trichloroethene	94	86	9	20	71-120
1,4-Dichlorobenzene	97	101	4	20	70-130
2-Butanone	124	112	10	20	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	108	106	2		70-130
Toluene-d8	100	94	6		70-130
4-Bromofluorobenzene	104	104	0		70-130
Dibromofluoromethane	109	102	7		70-130

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

Laboratory Job Number: L0712631

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-09 (WG292771-3)							
TCLP Metals							
TCLP Extraction				1 1311		0823 17:00	
Arsenic, TCLP	ND	mg/l	1.0	1 6010B	0904 11:00	0904 14:09	MG
Barium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:09	MG
Cadmium, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:09	MG
Chromium, TCLP	ND	mg/l	0.20	1 6010B	0904 11:00	0904 14:09	MG
Lead, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:09	MG
Selenium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:09	MG
Silver, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:09	MG
Blank Analysis for sample(s) 10-12 (WG292772-3)							
TCLP Metals							
TCLP Extraction				1 1311		0831 16:00	
Arsenic, TCLP	ND	mg/l	1.0	1 6010B	0904 11:00	0904 14:48	MG
Barium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:48	MG
Cadmium, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:48	MG
Chromium, TCLP	ND	mg/l	0.20	1 6010B	0904 11:00	0904 14:48	MG
Lead, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:48	MG
Selenium, TCLP	ND	mg/l	0.50	1 6010B	0904 11:00	0904 14:48	MG
Silver, TCLP	ND	mg/l	0.10	1 6010B	0904 11:00	0904 14:48	MG
Blank Analysis for sample(s) 01-09 (WG292791-4)							
TCLP Metals							
TCLP Extraction				1 1311		0823 17:30	
Mercury, TCLP	ND	mg/l	0.0010	1 7470A	0904 15:00	0905 10:22	DM
Blank Analysis for sample(s) 10-12 (WG292792-4)							
TCLP Metals							
TCLP Extraction				1 1311		0831 16:00	
Mercury, TCLP	ND	mg/l	0.0010	1 7470A	0904 15:00	0905 10:49	DM
Blank Analysis for sample(s) 10-12 (WG292864-1)							
TCLP Semi-Volatile Organics							
TCLP Extraction				1 1311		0831 16:00	
Hexachlorobenzene	ND	ug/l	25.		0904 17:30	0907 09:22	RL
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	50.				
2-Methylphenol	ND	ug/l	30.				
3-Methylphenol/4-Methylphenol	ND	ug/l	30.				



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0712631

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 10-12 (WG292864-1)							
TCLP Semi-Volatile Organics cont'd				1 8270C	0904 17:30	0907 09:22	RL
TCLP Extraction				1 1311	0831 16:00		
2,4,5-Trichlorophenol	ND	ug/l	25.				
Pyridine	ND	ug/l	250				
Surrogate(s)	Recovery						QC Criteria
2-Fluorophenol	51.0	%					21-120
Phenol-d6	60.0	%					10-120
Nitrobenzene-d5	52.0	%					23-120
2-Fluorobiphenyl	53.0	%					43-120
2,4,6-Tribromophenol	73.0	%					10-120
4-Terphenyl-d14	77.0	%					33-120
Blank Analysis for sample(s) 01-09 (WG293023-1)							
TCLP Semi-Volatile Organics				1 8270C	0905 17:00	0908 18:17	HL
TCLP Extraction				1 1311	0904 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	50.				
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	46.0	%					21-120
Phenol-d6	57.0	%					10-120
Nitrobenzene-d5	51.0	%					23-120
2-Fluorobiphenyl	49.0	%					43-120
2,4,6-Tribromophenol	66.0	%					10-120
4-Terphenyl-d14	72.0	%					33-120
Blank Analysis for sample(s) 10-12 (WG292865-1)							
TCLP Pesticides by GC				1 8082/8081	0904 19:30	0905 19:39	SS
TCLP Extraction				1 1311	0831 16:00		
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				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0712631

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 10-12 (WG292865-1)							
TCLP Pesticides by GC cont'd				1	8082/8081	0904 19:30	0905 19:39 SS
TCLP Extraction				1	1311	0831 16:00	
Surrogate(s)	Recovery						QC Criteria
2,4,5,6-Tetrachloro-m-xylene	60.0	%					30-150
Decachlorobiphenyl	65.0	%					30-150
Blank Analysis for sample(s) 01-09 (WG293042-1)							
TCLP Pesticides by GC				1	8082/8081	0905 18:45	0907 12:52 SS
TCLP Extraction				1	1311	0904 16:30	
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	55.0	%					30-150
Decachlorobiphenyl	70.0	%					30-150
Blank Analysis for sample(s) 10-12 (WG292866-1)							
TCLP Herbicides by GC				1	8151A(M)	0904 20:00	0911 02:57 JB
TCLP Extraction				1	1311	0831 16:00	
2,4-D	ND	mg/l	0.03				
2,4,5-TP (Silvex)	ND	mg/l	0.003				
Surrogate(s)	Recovery						QC Criteria
DCAA	62.0	%					
Blank Analysis for sample(s) 01-09 (WG293099-1)							
TCLP Herbicides by GC				1	8151A(M)	0906 09:30	0910 15:26 JB
TCLP Extraction				1	1311	0904 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	75.0	%					
Blank Analysis for sample(s) 10-12 (WG292863-1)							
TCLP PCBs by GC				1	8082	0904 17:30	0906 03:12 SS
TCLP Extraction				1	1311	0831 16:00	
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0712631

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 10-12 (WG292863-1)							
TCLP PCBs by GC cont'd				1 8082	0904 17:30	0906 03:12	SS
TCLP Extraction				1 1311	0831 16:00		
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	71.0	%	30-150				
Decachlorobiphenyl	110	%	30-150				
Blank Analysis for sample(s) 01-09 (WG293041-1)							
TCLP PCBs by GC				1 8082	0905 20:30	0907 11:28	SS
TCLP Extraction				1 1311	0904 16:30		
Aroclor 1016	ND	ug/l	2.50				
Aroclor 1221	ND	ug/l	2.50				
Aroclor 1232	ND	ug/l	2.50				
Aroclor 1242	ND	ug/l	2.50				
Aroclor 1248	ND	ug/l	2.50				
Aroclor 1254	ND	ug/l	2.50				
Aroclor 1260	ND	ug/l	2.50				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	53.0	%	30-150				
Decachlorobiphenyl	90.0	%	30-150				
Blank Analysis for sample(s) 01-06 (WG290025-8)							
TCLP Volatile Organics				1 8260B		0907 10:03	SE
TCLP Extraction				1 1311	0904 16:38		
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				
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	103	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	101	%	70-130				
Dibromofluoromethane	101	%	70-130				

**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.

**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.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**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.



# CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 8/22/07

ALPHA Job #: L0712631

WESTBORO, MA RAYNHAM, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

**Project Information**

Project Name: NA Soil Excavation

Project Location: Paytheon Wayland

Project #: 0051545

Project Manager: Jason Fattery

ALPHA Quote #:

**Report Information - Data Deliverables**
 FAX  EMAIL  
 ADEX  Add'l Deliverables
**Billing Information**
 Same as Client info PO #:
**Client Information**

Client: ERM - Boston

Address:

Phone:

Fax:

Email:

 These samples have been previously analyzed by Alpha
**Regulatory Requirements/Report Limits**

State / Fee Program

Criteria

MCP

52-GW1

**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS**
 Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?
**Turn-Around Time**
 Standard  RUSH (only confirmed if pre-approved!)

Date Due: 9/10/07 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Relog of L0712125-01 thru -12

ANALYSIS						SAMPLE HANDLING	
TCLP-B260	TCLP-B270	TCLP-PLB	TCLP-Pest	TCLP-Herb	TCLP-RB Metals	Filtration	
						<input 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)	
						Sample Specific Comments	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials								
		Date	Time										
12631-01	SP-I1-20070821-01	8-21-07	1105	S		X	X	X	X	X	X		
-02	SP-I2-20070821-01		1110			X	X	X	X	X	X		
-03	SP-I3-20070821-01		1115			X	X	X	X	X	X		
-04	SP-I4-20070821-01		1120			X	X	X	X	X	X		
-05	SP-I5-20070821-01		1125			X	X	X	X	X	X		
-06	SP-I6-20070821-01		1130			X	X	X	X	X	X		
-07	SP-J1-20070821-01		1135				X	X	X	X	X		
-08	SP-J2-20070821-01		1140				X	X	X	X	X		
-09	SP-J3-20070821-01		1145				X	X	X	X	X		
-10	SP-J4-20070821-01		1150				X	X	X	X	X		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

TFerry

8/23/07 1400

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





# CHAIN OF CUSTODY

PAGE 1 OF 2Date Rec'd in Lab: 8/22ALPHA Job #: L0712125

WESTBORO, MA RAYNHAM, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3268

**Project Information**

Project Name: NA Soil Excavation  
 Project Location: Raytheon-Wayland  
 Project #: 0051545  
 Project Manager: Jason Flattery  
 ALPHA Quote #:

**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEx  Add'l Deliverables

**Billing Information**

Same as Client info PO #:

**Client Information**

Client: ERM - Boston  
 Address: 399 Boylston St. 6<sup>th</sup> Fl  
Boston, MA 02116  
 Phone: 617 646 7800  
 Fax: 617 267 6447  
 Email: jason.flattery@erm.com  
 These samples have been previously analyzed by Alpha

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: 8/29 Time:

**Regulatory Requirements/Report Limits**

State /Fed Program Criteria  
MCP SZ + GW-1

**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOL**

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS  
 TCLP VDA  
 Pb, Cr, Ni, Cu, Zn, Cd, Mn, Hg  
 pH, react., flush  
 TCLP As, Ba, Ca, Pb, Ni, Cr  
 VOCs (High) B260  
 VOCs (Low) B260  
 Total Solids

**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		Sample Matrix	Sampler's Initials	ANALYSIS										Sample Specific Comments
		Date	Time			TCLP VDA	Pb, Cr, Ni, Cu, Zn, Cd, Mn, Hg	pH, react., flush	TCLP As, Ba, Ca, Pb, Ni, Cr	VOCs (High) B260	VOCs (Low) B260	Total Solids				
12125-01	SP-I1-20070821-01	8/21/07	1105	S	HEA											
	2 SP-I2-20070821-01		1110													
	3 SP-I3-20070821-01		1115													
	4 SP-I4-20070821-01		1120													
	5 SP-I5-20070821-01		1125													
	6 SP-I6-20070821-01		1130													
	7 SP-J1-20070821-01		1135													
	8 SP-J2-20070821-01		1140													
	9 SP-J3-20070821-01		1145													
	10 SP-J4-20070821-01	↓	1150	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Container Type

Preservative

AAA AVVP  
 AAA AFHDA

Relinquished By:

Date/Time

Received By:

Date/Time

[Signature]  
8/22/07 10:00  
8/22 11:20

[Signature]  
8/22/07 11:20

[Signature]  
8/22/07 11:20

8/22/07 11:20  
8/22/07 11:20

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



WESTBORO, MA RAYNHAM, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

# CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 8/22

ALPHA Job #: LO712125

### Client Information

Client: ERM Boston  
 Address: 399 Boylston St. 6<sup>th</sup> Fl  
Boston, MA 02116  
 Phone: 617 646 7800  
 Fax: 617 267 6447  
 Email: jason.flattey@erm.com  
 These samples have been previously analyzed by Alpha

### Project Information

Project Name: MA Soil Excavation  
 Project Location: Raymen Wayland  
 Project #: 0051545  
 Project Manager: Jason Flattery  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: 8/29 Time:

Other Project Specific Requirements/Comments/Detection Limits:

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State /Fed Program: MCP Criteria: SZ + GW-1

**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOL**

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

ANALYSIS

TCLP VDA	PLS, TRIP, SW, Part. Meth	pH, react, flash	TCLP As Bal	VOCs (High) 8260	VOCs (Low) 8260	Total Solids
----------	---------------------------	------------------	-------------	------------------	-----------------	--------------

### 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		Sample Matrix	Sampler's Initials	ANALYSIS							Sample Specific Comments
		Date	Time			TCLP VDA	PLS, TRIP, SW, Part. Meth	pH, react, flash	TCLP As Bal	VOCs (High) 8260	VOCs (Low) 8260	Total Solids	
12125. 11	SP-J5-20070821-01	8/21/07	1155	S	HEA	1	1	1	1	1	1	1	
12	SP-J6-20070821-01	8/21/07	1200	S	HEA	1	1	1	1	1	1	1	
13	DUP-001-20070821-01	8/21/07	2400	S	HEA					1	1	1	

PLEASE ANSWER QUESTIONS ABOVE!

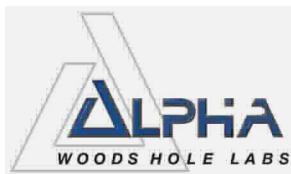
IS YOUR PROJECT  
 MA MCP or CT RCP?

Container Type: AAA AV VP  
 Preservative: AAA AF H2O

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

Relinquished By: [Signature] Date/Time: 8/22/07 10:58  
8/22 11:20  
 Received By: [Signature] Date/Time: 8/22 10:58  
8/22/07 11:20





## ANALYTICAL REPORT

Lab Number: L0712529

Client: ERM-New England  
399 Boylston Street  
6th Floor  
Boston, MA 02116

ATTN: Jeremy Picard

Project Name: NA SOIL EXCAVATION

Project Number: 0051545

Report Date: 09/04/07

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (200305), NJ (MA935), RI (LAO00065), ME (2006012), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0712529-01	SP-H1-20070820-01	RAYTHEON WAYLAND
L0712529-02	SP-H2-20070820-01	RAYTHEON WAYLAND
L0712529-03	SP-H3-20070820-01	RAYTHEON WAYLAND
L0712529-04	SP-H4-20070820-01	RAYTHEON WAYLAND
L0712529-05	SP-I1-20070821-01	RAYTHEON WAYLAND
L0712529-06	SP-I2-20070821-01	RAYTHEON WAYLAND
L0712529-07	SP-I3-20070821-01	RAYTHEON WAYLAND
L0712529-08	SP-I4-20070821-01	RAYTHEON WAYLAND
L0712529-09	SP-I5-20070821-01	RAYTHEON WAYLAND
L0712529-10	SP-I6-20070821-01	RAYTHEON WAYLAND
L0712529-11	SP-J1-20070821-01	RAYTHEON WAYLAND
L0712529-12	SP-J2-20070821-01	RAYTHEON WAYLAND
L0712529-13	SP-J3-20070821-01	RAYTHEON WAYLAND
L0712529-14	SP-J4-20070821-01	RAYTHEON WAYLAND
L0712529-15	SP-J5-20070821-01	RAYTHEON WAYLAND
L0712529-16	SP-J6-20070821-01	RAYTHEON WAYLAND

Project Name: NA SOIL EXCAVATION

Lab Number: L0712529

Project Number: 0051545

Report Date: 09/04/07

### MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. 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?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

#### Report Submission

This report replaces the previously issued preliminary report to include data for all requested analytes.

#### MCP Related Narratives:

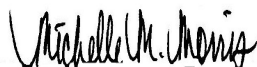
##### PCB

L0712529-02 was re-extracted to confirm the original results. Re-extraction was performed within holding time and the re-extracted data is reported.

L0712529-11 was re-extracted due to surrogate recoveries outside acceptance criteria on the original analysis. Re-extraction was performed within holding time and has acceptable surrogate recoveries; therefore, the re-extracted data is reported.

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

Authorized Signature:



Title: Technical Director/Representative

Date: 09/04/07

# ORGANICS

# PCBS

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-01  
**Client ID:** SP-H1-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 01:00  
**Analyst:** HG  
**Percent Solids:** 76%

**Date Collected:** 08/20/07 14:00  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.8	1
Aroclor 1221	ND		ug/kg	43.8	1
Aroclor 1232	ND		ug/kg	43.8	1
Aroclor 1242	ND		ug/kg	43.8	1
Aroclor 1248	ND		ug/kg	43.8	1
Aroclor 1254	ND		ug/kg	43.8	1
Aroclor 1260	ND		ug/kg	43.8	1
Aroclor 1262	ND		ug/kg	43.8	1
Aroclor 1268	ND		ug/kg	43.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	107		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	89		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-02 RE  
**Client ID:** SP-H2-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/04/07 15:11  
**Analyst:** SS  
**Percent Solids:** 76%

**Date Collected:** 08/20/07 14:05  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 09/04/07 13:45  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 09/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.8	1
Aroclor 1221	ND		ug/kg	43.8	1
Aroclor 1232	ND		ug/kg	43.8	1
Aroclor 1242	ND		ug/kg	43.8	1
Aroclor 1248	ND		ug/kg	43.8	1
Aroclor 1254	ND		ug/kg	43.8	1
Aroclor 1260	ND		ug/kg	43.8	1
Aroclor 1262	ND		ug/kg	43.8	1
Aroclor 1268	ND		ug/kg	43.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	60		30-150	B



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-03  
**Client ID:** SP-H3-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 01:57  
**Analyst:** HG  
**Percent Solids:** 77%

**Date Collected:** 08/20/07 14:10  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.3	1
Aroclor 1221	ND		ug/kg	43.3	1
Aroclor 1232	ND		ug/kg	43.3	1
Aroclor 1242	ND		ug/kg	43.3	1
Aroclor 1248	ND		ug/kg	43.3	1
Aroclor 1254	ND		ug/kg	43.3	1
Aroclor 1260	ND		ug/kg	43.3	1
Aroclor 1262	ND		ug/kg	43.3	1
Aroclor 1268	ND		ug/kg	43.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	35		30-150	B
Decachlorobiphenyl	41		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-04  
**Client ID:** SP-H4-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 02:26  
**Analyst:** HG  
**Percent Solids:** 79%

**Date Collected:** 08/20/07 14:15  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	42.2	1
Aroclor 1221	ND		ug/kg	42.2	1
Aroclor 1232	ND		ug/kg	42.2	1
Aroclor 1242	ND		ug/kg	42.2	1
Aroclor 1248	ND		ug/kg	42.2	1
Aroclor 1254	ND		ug/kg	42.2	1
Aroclor 1260	ND		ug/kg	42.2	1
Aroclor 1262	ND		ug/kg	42.2	1
Aroclor 1268	ND		ug/kg	42.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	117		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	109		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-05  
**Client ID:** SP-I1-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 02:54  
**Analyst:** HG  
**Percent Solids:** 76%

**Date Collected:** 08/21/07 11:05  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.8	1
Aroclor 1221	ND		ug/kg	43.8	1
Aroclor 1232	ND		ug/kg	43.8	1
Aroclor 1242	ND		ug/kg	43.8	1
Aroclor 1248	ND		ug/kg	43.8	1
Aroclor 1254	ND		ug/kg	43.8	1
Aroclor 1260	ND		ug/kg	43.8	1
Aroclor 1262	ND		ug/kg	43.8	1
Aroclor 1268	ND		ug/kg	43.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	102		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	93		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-06  
**Client ID:** SP-I2-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 03:23  
**Analyst:** HG  
**Percent Solids:** 78%

**Date Collected:** 08/21/07 11:10  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	42.7	1
Aroclor 1221	ND		ug/kg	42.7	1
Aroclor 1232	ND		ug/kg	42.7	1
Aroclor 1242	ND		ug/kg	42.7	1
Aroclor 1248	ND		ug/kg	42.7	1
Aroclor 1254	ND		ug/kg	42.7	1
Aroclor 1260	ND		ug/kg	42.7	1
Aroclor 1262	ND		ug/kg	42.7	1
Aroclor 1268	ND		ug/kg	42.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	113		30-150	A
Decachlorobiphenyl	137		30-150	A
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	118		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-07  
**Client ID:** SP-I3-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 03:52  
**Analyst:** HG  
**Percent Solids:** 74%

**Date Collected:** 08/21/07 11:15  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	45.0	1
Aroclor 1221	ND		ug/kg	45.0	1
Aroclor 1232	ND		ug/kg	45.0	1
Aroclor 1242	ND		ug/kg	45.0	1
Aroclor 1248	ND		ug/kg	45.0	1
Aroclor 1254	ND		ug/kg	45.0	1
Aroclor 1260	ND		ug/kg	45.0	1
Aroclor 1262	ND		ug/kg	45.0	1
Aroclor 1268	ND		ug/kg	45.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	115		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	108		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-08  
**Client ID:** SP-I4-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 04:49  
**Analyst:** HG  
**Percent Solids:** 77%

**Date Collected:** 08/21/07 11:20  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.3	1
Aroclor 1221	ND		ug/kg	43.3	1
Aroclor 1232	ND		ug/kg	43.3	1
Aroclor 1242	ND		ug/kg	43.3	1
Aroclor 1248	ND		ug/kg	43.3	1
Aroclor 1254	ND		ug/kg	43.3	1
Aroclor 1260	ND		ug/kg	43.3	1
Aroclor 1262	ND		ug/kg	43.3	1
Aroclor 1268	ND		ug/kg	43.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	102		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	98		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-09  
**Client ID:** SP-I5-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 05:18  
**Analyst:** HG  
**Percent Solids:** 77%

**Date Collected:** 08/21/07 11:25  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.3	1
Aroclor 1221	ND		ug/kg	43.3	1
Aroclor 1232	ND		ug/kg	43.3	1
Aroclor 1242	ND		ug/kg	43.3	1
Aroclor 1248	ND		ug/kg	43.3	1
Aroclor 1254	ND		ug/kg	43.3	1
Aroclor 1260	ND		ug/kg	43.3	1
Aroclor 1262	ND		ug/kg	43.3	1
Aroclor 1268	ND		ug/kg	43.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	120		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	102		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-10  
**Client ID:** SP-I6-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 05:46  
**Analyst:** HG  
**Percent Solids:** 75%

**Date Collected:** 08/21/07 11:30  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	44.4	1
Aroclor 1221	ND		ug/kg	44.4	1
Aroclor 1232	ND		ug/kg	44.4	1
Aroclor 1242	ND		ug/kg	44.4	1
Aroclor 1248	ND		ug/kg	44.4	1
Aroclor 1254	ND		ug/kg	44.4	1
Aroclor 1260	ND		ug/kg	44.4	1
Aroclor 1262	ND		ug/kg	44.4	1
Aroclor 1268	ND		ug/kg	44.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	76		30-150	B



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-11 RE  
**Client ID:** SP-J1-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/04/07 14:06  
**Analyst:** SS  
**Percent Solids:** 80%

**Date Collected:** 08/21/07 11:35  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 09/04/07 10:30  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 09/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	41.7	1
Aroclor 1221	ND		ug/kg	41.7	1
Aroclor 1232	ND		ug/kg	41.7	1
Aroclor 1242	ND		ug/kg	41.7	1
Aroclor 1248	ND		ug/kg	41.7	1
Aroclor 1254	ND		ug/kg	41.7	1
Aroclor 1260	ND		ug/kg	41.7	1
Aroclor 1262	ND		ug/kg	41.7	1
Aroclor 1268	ND		ug/kg	41.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	82		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-12  
**Client ID:** SP-J2-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 06:43  
**Analyst:** HG  
**Percent Solids:** 81%

**Date Collected:** 08/21/07 11:40  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	41.2	1
Aroclor 1221	ND		ug/kg	41.2	1
Aroclor 1232	ND		ug/kg	41.2	1
Aroclor 1242	ND		ug/kg	41.2	1
Aroclor 1248	ND		ug/kg	41.2	1
Aroclor 1254	ND		ug/kg	41.2	1
Aroclor 1260	ND		ug/kg	41.2	1
Aroclor 1262	ND		ug/kg	41.2	1
Aroclor 1268	ND		ug/kg	41.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	115		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	110		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-13  
**Client ID:** SP-J3-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 07:12  
**Analyst:** HG  
**Percent Solids:** 82%

**Date Collected:** 08/21/07 11:45  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	40.6	1
Aroclor 1221	ND		ug/kg	40.6	1
Aroclor 1232	ND		ug/kg	40.6	1
Aroclor 1242	ND		ug/kg	40.6	1
Aroclor 1248	ND		ug/kg	40.6	1
Aroclor 1254	ND		ug/kg	40.6	1
Aroclor 1260	ND		ug/kg	40.6	1
Aroclor 1262	ND		ug/kg	40.6	1
Aroclor 1268	ND		ug/kg	40.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	117		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	112		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-14  
**Client ID:** SP-J4-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 07:41  
**Analyst:** HG  
**Percent Solids:** 75%

**Date Collected:** 08/21/07 11:50  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	44.4	1
Aroclor 1221	ND		ug/kg	44.4	1
Aroclor 1232	ND		ug/kg	44.4	1
Aroclor 1242	ND		ug/kg	44.4	1
Aroclor 1248	ND		ug/kg	44.4	1
Aroclor 1254	ND		ug/kg	44.4	1
Aroclor 1260	ND		ug/kg	44.4	1
Aroclor 1262	ND		ug/kg	44.4	1
Aroclor 1268	ND		ug/kg	44.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	122		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	107		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-15  
**Client ID:** SP-J5-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 08:09  
**Analyst:** HG  
**Percent Solids:** 79%

**Date Collected:** 08/21/07 11:55  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	42.2	1
Aroclor 1221	ND		ug/kg	42.2	1
Aroclor 1232	ND		ug/kg	42.2	1
Aroclor 1242	ND		ug/kg	42.2	1
Aroclor 1248	ND		ug/kg	42.2	1
Aroclor 1254	ND		ug/kg	42.2	1
Aroclor 1260	ND		ug/kg	42.2	1
Aroclor 1262	ND		ug/kg	42.2	1
Aroclor 1268	ND		ug/kg	42.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	107		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	80		30-150	B

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

**Lab ID:** L0712529-16  
**Client ID:** SP-J6-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 09/01/07 08:38  
**Analyst:** HG  
**Percent Solids:** 76%

**Date Collected:** 08/21/07 12:00  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Polychlorinated Biphenyls by MCP 8082</b>					
Aroclor 1016	ND		ug/kg	43.8	1
Aroclor 1221	ND		ug/kg	43.8	1
Aroclor 1232	ND		ug/kg	43.8	1
Aroclor 1242	ND		ug/kg	43.8	1
Aroclor 1248	ND		ug/kg	43.8	1
Aroclor 1254	ND		ug/kg	43.8	1
Aroclor 1260	ND		ug/kg	43.8	1
Aroclor 1262	ND		ug/kg	43.8	1
Aroclor 1268	ND		ug/kg	43.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	113		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	104		30-150	B

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 64,8082  
**Analytical Date:** 08/31/07 23:34  
**Analyst:** HG

**Extraction Method:** EPA 3545  
**Extraction Date:** 08/30/07 04:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 08/31/07

Parameter	Result	Qualifier	Units	RDL
Polychlorinated Biphenyls by MCP 8082 for sample(s): 01,03-10,12-16 Batch: WG292378-1				
Aroclor 1016	ND		ug/kg	33.3
Aroclor 1221	ND		ug/kg	33.3
Aroclor 1232	ND		ug/kg	33.3
Aroclor 1242	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
Aroclor 1268	ND		ug/kg	33.3

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	80		30-150	B

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 64,8082  
Analytical Date: 09/04/07 14:34  
Analyst: SS

Extraction Method: EPA 3545  
Extraction Date: 09/04/07 10:30  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 09/04/07

Parameter	Result	Qualifier	Units	RDL
Polychlorinated Biphenyls by MCP 8082 for sample(s): 02,11 Batch: WG292805-1				
Aroclor 1016	ND		ug/kg	33.3
Aroclor 1221	ND		ug/kg	33.3
Aroclor 1232	ND		ug/kg	33.3
Aroclor 1242	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
Aroclor 1268	ND		ug/kg	33.3

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	77		30-150	B



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Lab Number:** L0712529

**Project Number:** 0051545

**Report Date:** 09/04/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Polychlorinated Biphenyls by MCP 8082 Associated sample(s): 01,03-10,12-16 Batch: WG292378-2 WG292378-3					
Aroclor 1016	87	88	40-140	1	30
Aroclor 1260	116	112	40-140	4	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		106		30-150	A
Decachlorobiphenyl	126		122		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		96		30-150	B
Decachlorobiphenyl	111		117		30-150	B

Polychlorinated Biphenyls by MCP 8082 Associated sample(s): 02,11 Batch: WG292805-2 WG292805-3					
Aroclor 1016	96	79	40-140	19	30
Aroclor 1260	105	84	40-140	22	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		84		30-150	A
Decachlorobiphenyl	88		73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		63		30-150	B
Decachlorobiphenyl	73		64		30-150	B

# **INORGANICS & MISCELLANEOUS**

Project Name: NA SOIL EXCAVATION

Lab Number: L0712529

Project Number: 0051545

Report Date: 09/04/07

**SAMPLE RESULTS**

Lab ID: L0712529-01  
 Client ID: SP-H1-20070820-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/20/07 14:00  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	76		%	0.10	1	-	08/22/07 16:40	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-02  
**Client ID:** SP-H2-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/20/07 14:05  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	76		%	0.10	1	-	08/22/07 16:40	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-03  
**Client ID:** SP-H3-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/20/07 14:10  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	77		%	0.10	1	-	08/22/07 16:40	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-04  
**Client ID:** SP-H4-20070820-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/20/07 14:15  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	79		%	0.10	1	-	08/22/07 16:40	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-05  
 Client ID: SP-I1-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:05  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	76		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



Project Name: NA SOIL EXCAVATION

Lab Number: L0712529

Project Number: 0051545

Report Date: 09/04/07

**SAMPLE RESULTS**

Lab ID: L0712529-06  
 Client ID: SP-I2-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:10  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	78		%	0.10	1	-	08/23/07 15:20	30,2540G	NM





**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-07  
 Client ID: SP-I3-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:15  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	74		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-08  
 Client ID: SP-I4-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:20  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	77		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-09  
 Client ID: SP-I5-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:25  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	77		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-10  
 Client ID: SP-I6-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:30  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	75		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



Project Name: NA SOIL EXCAVATION

Lab Number: L0712529

Project Number: 0051545

Report Date: 09/04/07

**SAMPLE RESULTS**

Lab ID: L0712529-11  
 Client ID: SP-J1-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:35  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	80		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-12  
 Client ID: SP-J2-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:40  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	81		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-13  
**Client ID:** SP-J3-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/21/07 11:45  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	82		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-14  
**Client ID:** SP-J4-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/21/07 11:50  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	75		%	0.10	1	-	08/23/07 15:20	30,2540G	NM





**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**SAMPLE RESULTS**

Lab ID: L0712529-15  
 Client ID: SP-J5-20070821-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil

Date Collected: 08/21/07 11:55  
 Date Received: 08/22/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	79		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

### SAMPLE RESULTS

**Lab ID:** L0712529-16  
**Client ID:** SP-J6-20070821-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/21/07 12:00  
**Date Received:** 08/22/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	76		%	0.10	1	-	08/23/07 15:20	30,2540G	NM



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: NA SOIL EXCAVATION

Project Number: 0051545

Lab Number: L0712529

Report Date: 09/04/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 05-16 QC Batch ID: WG292581-1 QC Sample: L0712529-05 Client ID: SP-I1-20070821-01					
Solids, Total	76	76	%	0	20

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712529**Project Number:** 0051545**Report Date:** 09/04/07**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0712529-01A	Amber 250ml unpreserved	A	N/A	2C	Y	Absent	MCP-8082-04
L0712529-02A	Amber 250ml unpreserved	A	N/A	2C	Y	Absent	MCP-8082-04
L0712529-03A	Amber 250ml unpreserved	A	N/A	2C	Y	Absent	MCP-8082-04
L0712529-04A	Amber 250ml unpreserved	A	N/A	2C	Y	Absent	MCP-8082-04
L0712529-05A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-06A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-07A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-08A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-09A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-10A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-11A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-12A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-13A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-14A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-15A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04
L0712529-16A	Amber 250ml unpreserved	B	N/A	2.0C	Y	Absent	MCP-8082-04

**Container Comments**

L0712529-01A	Temp Probe
L0712529-02A	Temp Probe
L0712529-03A	Temp Probe
L0712529-04A	Temp Probe

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

## GLOSSARY

### Acronyms

- EPA - Environmental Protection Agency.  
LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.  
LCSD- Laboratory Control Sample Duplicate: Refer to LCS.  
MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.  
MSD - Matrix Spike Sample Duplicate: Refer to MS.  
NA - Not Applicable.  
NI - Not Ignitable.  
NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.  
ND - Not detected at the reported detection limit for the sample.  
RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.  
RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

- A - Spectra identified as "Aldol Condensation Product".  
B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.  
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.  
J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

- H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712529  
**Report Date:** 09/04/07

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 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.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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











09040720:06



# CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 8/22

ALPHA Job #: LO712125

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

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

## Project Information

Project Name: MA Soil Excavation  
Project Location: Raytheon Wayland  
Project #: 0051545  
Project Manager: Jason Flattery  
ALPHA Quote #:

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client info PO #:

## Client Information

Client: ERM Boston  
Address: 399 Boylston St. 6<sup>th</sup> Fl  
Boston, MA 02116  
Phone: 617 646 7800  
Fax: 617 267 6447  
Email: jason.flattery@erm.com

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: 8/29 Time:

## Regulatory Requirements/Report Limits

State /Fed Program: MCP Criteria: SZ + GW-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?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS							SAMPLE HANDLING	
TCLP VDA	PLA/TUR SW/CS Post-Inst	PH + react + flush	TCLP AsB/Ca/Ph/Ag	VOCs (High) 8760	VOCs (Low) 8260	TOTAL SOLIDS	<input type="checkbox"/> Done	Filtration <input type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do <small>(Please specify below)</small>

ALPHA Lab ID (Lab Use Only)	SampleID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS							Sample Specific Comments
		Date	Time			TCLP VDA	PLA/TUR SW/CS Post-Inst	PH + react + flush	TCLP AsB/Ca/Ph/Ag	VOCs (High) 8760	VOCs (Low) 8260	TOTAL SOLIDS	
12125. 11	SP-J5-20070821-01	8/21/07	1155	S	HEA	1	1	1	1	1	1		
12	SP-J6-20070821-01	8/21/07	1200	S	HEA	1	1	1	1	1	1		
13	DUP-001-20070821-01	8/21/07	2400	S	HEA				1	1	1		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP or CT RCP?

Container Type	A	A	A	A	V	V	P
Preservative	A	A	A	A	F	H	O

Relinquished By: [Signature] Date/Time: 8/22/07 10:58  
Received By: [Signature] Date/Time: 8/22/07 11:20

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

09040720:06



# CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA TEL: 508-898-9220  
 RAYNHAM, MA TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3288

Date Rec'd in Lab: 8/21

ALPHA Job #: L0712074  
L0712052

### Client Information

Client: ERM-Boston  
 Address: 399 Baylston St. 6<sup>th</sup> Floor  
Boston, MA 02116  
 Phone: 617 646 7800  
 Fax: 617 267 6447  
 Email: jason.flattery@erm.com

### Project Information

Project Name: NA Soil Excavation  
 Project Location: Raytheon-Wayland  
 Project #: 0051545  
 Project Manager: Jason Flattery  
 ALPHA Quote #:

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State /Fed Program: MCP Criteria: S2 + GW1  
**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS**

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
 3 days on non-MCP VOCs  
 Date Due: PER DOCUMENT Time:

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

ANALYSIS	SAMPLE HANDLING
<p><u>TCLP VDA</u></p> <p><u>Pb, TEL, P, Ni, Cd, Hg</u></p> <p><u>pH, react. flash</u></p> <p><u>TCLP As, Ba, Cd, Pb, Hg, Ni</u></p> <p><u>VOCs (High) B260</u></p> <p><u>VOCs (Low) B260</u></p> <p><u>Total Solids</u></p>	<p>Filtration</p> <p><input type="checkbox"/> Done</p> <p><input checked="" type="checkbox"/> Not needed</p> <p><input type="checkbox"/> Lab to do</p> <p><input type="checkbox"/> Preservation</p> <p><input type="checkbox"/> Lab to do</p> <p>(Please specify below)</p>
<p>Sample Specific Comments</p>	

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials									
		Date	Time											
<u>12052.1</u>	<u>SP-H1-20070820-01</u>	<u>8/20/07</u>	<u>14:00</u>	<u>S</u>	<u>JDF</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
<u>12074</u>	<u>2 SP-H2-20070820-01</u>	<u>1</u>	<u>14:05</u>	<u>S</u>	<u>↓</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
	<u>3 SP-H3-20070820-01</u>	<u>↓</u>	<u>14:10</u>	<u>S</u>	<u>↓</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
	<u>4 SP-H4-20070820-01</u>	<u>↓</u>	<u>14:15</u>	<u>S</u>	<u>↓</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
<u>Ⓟ</u>	<u>DUP-001-20070820-01</u>	<u>✓</u>	<u>24:00</u>	<u>S</u>	<u>↓</u>									

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	<u>A A A A V V P</u>
Preservative	<u>A A A A F H<sub>2</sub>O A</u>

IS YOUR PROJECT  
 MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>8/21/07 10:45</u>	<u>[Signature]</u>	<u>8/21 1546</u>
	<u>8/21/07 12:00</u>		<u>6/21/07 12:20</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.



## ANALYTICAL REPORT

Lab Number: L0712559

Client: ERM-New England  
399 Boylston Street  
6th Floor  
Boston, MA 02116

ATTN: Jeremy Picard

Project Name: NA SOIL EXCAVATION

Project Number: 0051545

Report Date: 08/31/07

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (200305), NJ (MA935), RI (LAO00065), ME (2006012), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

**Alpha Sample ID**

L0712559-01

**Client ID**

EL-DE1-4-20070830-01

**Sample Location**

RAYTHEON WAYLAND



Project Name: NA SOIL EXCAVATION

Lab Number: L0712559

Project Number: 0051545

Report Date: 08/31/07

### MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. 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 methods(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?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

#### MCP Related Narratives

##### Volatile Organics

L0712559-01 was processed against a calibration curve that utilized a quadratic fit for 2,2-Dichloropropane.

In reference to question E:

The WG292570-4/5 LCS/LCSD % recoveries for Dichlorodifluoromethane and 2,2-Dichloropropane are below the individual acceptance criteria for the compounds, but within the overall method allowances.

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

Authorized Signature:



Title: Technical Director/Representative

Date: 08/31/07

# ORGANICS



# VOLATILES

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712559**Project Number:** 0051545**Report Date:** 08/31/07**SAMPLE RESULTS**

**Lab ID:** L0712559-01  
**Client ID:** EL-DE1-4-20070830-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 60,8260B  
**Analytical Date:** 08/31/07 11:56  
**Analyst:** GK  
**Percent Solids:** 80%

**Date Collected:** 08/30/07 14:20  
**Date Received:** 08/30/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Low</b>					
Methylene chloride	ND		ug/kg	10	1
1,1-Dichloroethane	ND		ug/kg	1.6	1
Chloroform	ND		ug/kg	1.6	1
Carbon tetrachloride	ND		ug/kg	1.0	1
1,2-Dichloropropane	ND		ug/kg	3.6	1
Dibromochloromethane	ND		ug/kg	1.0	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	1
Tetrachloroethene	1.2		ug/kg	1.0	1
Chlorobenzene	ND		ug/kg	1.0	1
Trichlorofluoromethane	ND		ug/kg	5.2	1
1,2-Dichloroethane	ND		ug/kg	1.0	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	1
Bromodichloromethane	ND		ug/kg	1.0	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	1
1,1-Dichloropropene	ND		ug/kg	5.2	1
Bromoform	ND		ug/kg	4.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	1
Benzene	ND		ug/kg	1.0	1
Toluene	ND		ug/kg	1.6	1
Ethylbenzene	ND		ug/kg	1.0	1
Chloromethane	ND		ug/kg	5.2	1
Bromomethane	ND		ug/kg	2.1	1
Vinyl chloride	ND		ug/kg	2.1	1
Chloroethane	ND		ug/kg	2.1	1
1,1-Dichloroethene	ND		ug/kg	1.0	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	1
Trichloroethene	6.5		ug/kg	1.0	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	1
1,3-Dichlorobenzene	ND		ug/kg	5.2	1

Project Name: NA SOIL EXCAVATION

Lab Number: L0712559

Project Number: 0051545

Report Date: 08/31/07

## SAMPLE RESULTS

Lab ID: L0712559-01  
 Client ID: EL-DE1-4-20070830-01  
 Sample Location: RAYTHEON WAYLAND

Date Collected: 08/30/07 14:20  
 Date Received: 08/30/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Low</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.2	1
Methyl tert butyl ether	ND		ug/kg	2.1	1
p/m-Xylene	ND		ug/kg	2.1	1
o-Xylene	ND		ug/kg	2.1	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	1
Dibromomethane	ND		ug/kg	10	1
1,2,3-Trichloropropane	ND		ug/kg	10	1
Styrene	ND		ug/kg	2.1	1
Dichlorodifluoromethane	ND		ug/kg	10	1
Acetone	ND		ug/kg	10	1
Carbon disulfide	ND		ug/kg	52	1
2-Butanone	ND		ug/kg	10	1
4-Methyl-2-pentanone	ND		ug/kg	10	1
2-Hexanone	ND		ug/kg	10	1
Bromochloromethane	ND		ug/kg	5.2	1
Tetrahydrofuran	ND		ug/kg	21	1
2,2-Dichloropropane	ND		ug/kg	5.2	1
1,2-Dibromoethane	ND		ug/kg	4.2	1
1,3-Dichloropropane	ND		ug/kg	5.2	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	1
Bromobenzene	ND		ug/kg	5.2	1
n-Butylbenzene	ND		ug/kg	1.0	1
sec-Butylbenzene	ND		ug/kg	1.0	1
tert-Butylbenzene	ND		ug/kg	5.2	1
o-Chlorotoluene	ND		ug/kg	5.2	1
p-Chlorotoluene	ND		ug/kg	5.2	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1
Hexachlorobutadiene	ND		ug/kg	5.2	1
Isopropylbenzene	ND		ug/kg	1.0	1
p-Isopropyltoluene	ND		ug/kg	1.0	1
Naphthalene	ND		ug/kg	5.2	1
n-Propylbenzene	ND		ug/kg	1.0	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	1
Ethyl ether	ND		ug/kg	5.2	1

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712559**Project Number:** 0051545**Report Date:** 08/31/07**SAMPLE RESULTS**

Lab ID: L0712559-01

Date Collected: 08/30/07 14:20

Client ID: EL-DE1-4-20070830-01

Date Received: 08/30/07

Sample Location: RAYTHEON WAYLAND

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Low</b>					
Isopropyl Ether	ND		ug/kg	4.2	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.2	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.2	1
1,4-Dioxane	ND		ug/kg	520	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	100		70-130

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/31/07 11:20  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Low for sample(s): 01 Batch: WG292570-6				
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

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/31/07 11:20  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Low for sample(s): 01 Batch: WG292570-6				
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	50
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

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/31/07 11:20  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Low for sample(s): 01 Batch: WG292570-6				
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	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	95		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Project Number:** 0051545

**Lab Number:** L0712559

**Report Date:** 08/31/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Low Associated sample(s): 01 Batch: WG292570-4 WG292570-5					
Methylene chloride	88	86	70-130	2	25
1,1-Dichloroethane	104	109	70-130	5	25
Chloroform	108	111	70-130	3	25
Carbon tetrachloride	100	108	70-130	8	25
1,2-Dichloropropane	108	109	70-130	1	25
Dibromochloromethane	103	104	70-130	1	25
1,1,2-Trichloroethane	109	108	70-130	1	25
Tetrachloroethene	115	115	70-130	0	25
Chlorobenzene	111	111	70-130	0	25
Trichlorofluoromethane	96	102	70-130	6	25
1,2-Dichloroethane	106	110	70-130	4	25
1,1,1-Trichloroethane	105	110	70-130	5	25
Bromodichloromethane	107	112	70-130	5	25
trans-1,3-Dichloropropene	97	99	70-130	2	25
cis-1,3-Dichloropropene	100	103	70-130	3	25
1,1-Dichloropropene	104	107	70-130	3	25
Bromoform	100	106	70-130	6	50
1,1,2,2-Tetrachloroethane	101	103	70-130	2	25
Benzene	106	108	70-130	2	25
Toluene	106	108	70-130	2	25
Ethylbenzene	110	113	70-130	3	25



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Lab Number:** L0712559

**Project Number:** 0051545

**Report Date:** 08/31/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Low Associated sample(s): 01 Batch: WG292570-4 WG292570-5					
Chloromethane	82	87	70-130	6	50
Bromomethane	110	113	70-130	3	50
Vinyl chloride	90	94	70-130	4	25
Chloroethane	118	117	70-130	1	25
1,1-Dichloroethene	106	107	70-130	1	25
trans-1,2-Dichloroethene	106	107	70-130	1	25
Trichloroethene	110	109	70-130	1	25
1,2-Dichlorobenzene	104	110	70-130	6	25
1,3-Dichlorobenzene	104	111	70-130	7	25
1,4-Dichlorobenzene	101	110	70-130	9	25
Methyl tert butyl ether	72	71	70-130	1	25
p/m-Xylene	111	116	70-130	4	25
o-Xylene	106	110	70-130	4	25
cis-1,2-Dichloroethene	114	114	70-130	0	25
Dibromomethane	111	109	70-130	2	25
1,2,3-Trichloropropane	109	112	70-130	3	25
Styrene	104	106	70-130	2	25
Dichlorodifluoromethane	42	42	70-130	0	50
Acetone	94	76	70-130	21	50
Carbon disulfide	83	84	70-130	1	25
2-Butanone	84	88	70-130	5	50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Lab Number:** L0712559

**Project Number:** 0051545

**Report Date:** 08/31/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Low Associated sample(s): 01 Batch: WG292570-4 WG292570-5					
4-Methyl-2-pentanone	100	99	70-130	1	50
2-Hexanone	90	92	70-130	2	50
Bromochloromethane	108	110	70-130	2	25
Tetrahydrofuran	90	87	70-130	3	25
2,2-Dichloropropane	60	69	70-130	14	50
1,2-Dibromoethane	113	115	70-130	2	25
1,3-Dichloropropane	112	112	70-130	0	25
1,1,1,2-Tetrachloroethane	114	112	70-130	2	25
Bromobenzene	108	112	70-130	4	25
n-Butylbenzene	82	88	70-130	7	25
sec-Butylbenzene	106	112	70-130	6	25
tert-Butylbenzene	105	114	70-130	8	25
o-Chlorotoluene	102	108	70-130	6	25
p-Chlorotoluene	102	110	70-130	8	25
1,2-Dibromo-3-chloropropane	89	94	70-130	5	50
Hexachlorobutadiene	99	109	70-130	10	25
Isopropylbenzene	114	122	70-130	7	25
p-Isopropyltoluene	112	119	70-130	6	25
Naphthalene	107	113	70-130	5	25
n-Propylbenzene	103	110	70-130	7	25
1,2,3-Trichlorobenzene	103	111	70-130	7	25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Project Number:** 0051545

**Lab Number:** L0712559

**Report Date:** 08/31/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Low Associated sample(s): 01 Batch: WG292570-4 WG292570-5					
1,2,4-Trichlorobenzene	101	110	70-130	9	25
1,3,5-Trimethylbenzene	103	109	70-130	6	25
1,2,4-Trimethylbenzene	106	112	70-130	6	25
Ethyl ether	103	105	70-130	2	25
Isopropyl Ether	95	96	70-130	1	25
Ethyl-Tert-Butyl-Ether	78	80	70-130	3	25
Tertiary-Amyl Methyl Ether	82	85	70-130	4	25
1,4-Dioxane	95	96	70-130	1	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		90		70-130
Toluene-d8	96		96		70-130
4-Bromofluorobenzene	87		91		70-130
Dibromofluoromethane	95		99		70-130

# **INORGANICS & MISCELLANEOUS**

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

### SAMPLE RESULTS

**Lab ID:** L0712559-01  
**Client ID:** EL-DE1-4-20070830-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil

**Date Collected:** 08/30/07 14:20  
**Date Received:** 08/30/07  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	80		%	0.10	1	-	08/31/07 08:20	30,2540G	ST



## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** NA SOIL EXCAVATION

**Project Number:** 0051545

**Lab Number:** L0712559

**Report Date:** 08/31/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01 QC Batch ID: WG292571-1 QC Sample: L0712559-01 Client ID: EL-DE1-4-20070830-01					
Solids, Total	80	81	%	1	20

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712559**Project Number:** 0051545**Report Date:** 08/31/07**Sample Receipt and Container Information**

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
L0712559-01A	Vial MeOH preserved	A	N/A	2 C	Y	Absent	MCP-8260LW-04
L0712559-01B	Vial water preserved	A	N/A	2 C	Y	Absent	MCP-8260LW-04
L0712559-01C	Plastic 2oz unpreserved for TS	A	N/A	2 C	Y	Absent	TS

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

## GLOSSARY

### **Acronyms**

- EPA - Environmental Protection Agency.  
LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.  
LCSD- Laboratory Control Sample Duplicate: Refer to LCS.  
MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.  
MSD - Matrix Spike Sample Duplicate: Refer to MS.  
NA - Not Applicable.  
NI - Not Ignitable.  
NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.  
ND - Not detected at the reported detection limit for the sample.  
RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.  
RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### **Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### **Data Qualifiers**

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### **Standard Qualifiers**

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

Report Format: Not Specified





**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712559  
**Report Date:** 08/31/07

## 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.

## LIMITATION OF LIABILITIES

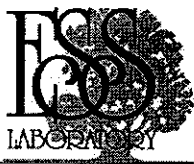
Alpha Woods Hole Labs performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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









# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

## PROJECT NARRATIVE

Mary Davis  
Alpha Analytical  
8 Walkup Drive  
Westborough, MA 01581

**RE: Alpha Analytical Sampling**  
**ESS Laboratory Work Order Number: 0708357**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

Date: August 27, 2007

### Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Holding time and preservation requirements for all MCP analytes were achieved, unless otherwise noted in this Project Narrative.

### Sample Receipt

The following samples were received on August 23, 2007 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client Sample ID
0708357-01	Soil	L0712213-01
0708357-02	Soil	L0712213-02
0708357-03	Soil	L0712213-03
0708357-04	Soil	L0712213-04
0708357-05	Soil	L0712213-05
0708357-06	Soil	L0712213-06
0708357-07	Soil	L0712213-07
0708357-08	Solid	Trip Blank L0712213-08



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### PROJECT NARRATIVE

#### 5035/8260B Volatile Organic Compounds / Low Level

0708357-01

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

0708357-02

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

0708357-03

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

0708357-04

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

0708357-05

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
0708357-06

ESS Laboratory Work Order: 0708357

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS data was within criteria.

1,2-Dichloroethane-d4  
1,4-Dichlorobenzene-D4  
1,4-Dichlorobenzene-D4  
4-Bromofluorobenzene  
Chlorobenzene-d5  
Chlorobenzene-d5  
Dibromofluoromethane  
Fluorobenzene  
Fluorobenzene  
Toluene-d8

Outside QC Limits.  
Internal Standard was outside of criteria due to matrix (UCM present).  
Internal Standard is outside of criteria. Insufficient sample for reanalysis.  
Outside QC Limits.  
Internal Standard was outside of criteria due to matrix (UCM present).  
Internal Standard is outside of criteria. Insufficient sample for reanalysis.  
Outside QC Limits.  
Internal Standard was outside of criteria due to matrix (UCM present).  
Internal Standard is outside of criteria. Insufficient sample for reanalysis.  
Outside QC Limits.

0708357-07

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

0708357-08

Due to equipment malfunction, surrogates were not added to any of the low level VOA samples resulting in no recovery for any of the surrogates. Only 1 vial was received. All associated LCS and Internal Standard data was within criteria.

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

BH72405-BLK1

1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Dibromofluoromethane  
Toluene-d8

Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.  
Outside QC Limits.

No other observations noted.

End of Project Narrative.



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### MADEP MCP Response Action Analytical Report Certification Form

MADEP RTN\*: \_\_\_\_\_

This form provides certification for the following data set:  
0708357-01 through 0708357-08

Sample Matrices:	( ) Ground Water	(X) Soil/Sediment	( ) Drinking Water	( ) Other:
MCP SW-846	8260B (X)	8151A ( )	8330 ( )	6010B ( ) 7470A/1A ( )
Methods Used	8270C ( )	8081A ( )	VPH ( )	6020 ( ) 9014M** ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S*** ( ) 7194A ( )

As specified in MADEP  
Compendium of Analytical  
Methods (Check all that apply)

\* List Release Tracking Number (RTN), if known.  
\*\* M-SW-846 9014 or MADEP Physiologically Available Cyanide (PAC) Method  
\*\*\* S - SW - 846 Methods 7000 Series - List individual method and analyte

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

- A Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set? (Yes) No\*
- 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) No\*
- C Does the data included in the report meet all the requirements for "Presumptive Certainty" as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? (Yes) No\*
- D **VPH and EPH methods only:** Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective Methods)? Yes No\*

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

- E Were all QC performance standards and recommendations for the specific methods achieved? Yes (No)\*
- F Were results for all analyte-list compounds/elements for the specified method(s) reported? (Yes) No\*

*\*All negative responses must be addressed in an attached Environmental Laboratory 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 analytical report is, to the best of my knowledge and belief, accurate and complete.*

Signature: Laurel Stoddard

Date: August 27, 2007

Printed Name: Laurel Stoddard

Position: Laboratory Director



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-01  
 Date Sampled: 08/23/07 09:15  
 Percent Solids: 96  
 Initial Volume: 5.7  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-01  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

#### MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0046	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0046	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0046	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0046	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0046		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0046		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0046	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0046	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0046	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0046	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.228		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0457	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0046		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0457		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0046		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0046	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0457	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0457	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0046	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0046		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0046		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0091	10	1	08/24/07





# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-01  
 Date Sampled: 08/23/07 09:15  
 Percent Solids: 96  
 Initial Volume: 5.7  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-01  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0046	1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0046	10	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0046	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0091	1	08/24/07
Chloroform	ND	mg/kg dry	0.0046	0.1	08/24/07
Chloromethane	ND	mg/kg dry	0.0091	1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0046	0.3	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0046	0.01	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0046	0.005	08/24/07
Dibromomethane	ND	mg/kg dry	0.0046	1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0091	1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0046	1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0046	1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0046	1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0046	80	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0046	90	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0046	100	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0046	0.1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0228	0.1	08/24/07
Naphthalene	ND	mg/kg dry	0.0046	4	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0046	100	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0046	100	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0046	100	08/24/07
Styrene	ND	mg/kg dry	0.0046	3	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0046	100	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0046	1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0046	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0046	1	08/24/07
Toluene	ND	mg/kg dry	0.0046	30	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0046	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0046	0.01	08/24/07
Trichloroethene	ND	mg/kg dry	0.0046	0.3	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0046	1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0091	0.9	08/24/07
Xylene O	ND	mg/kg dry	0.0046	400	08/24/07
Xylene P,M	ND	mg/kg dry	0.0091	400	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-01  
 Date Sampled: 08/23/07 09:15  
 Percent Solids: 96  
 Initial Volume: 1  
 Final Volume: 1  
 Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-01  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0137 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	0.7 %	+	70-130
Surrogate: 4-Bromofluorobenzene	0.2 %	+	70-130
Surrogate: Dibromofluoromethane	0.8 %	+	70-130
Surrogate: Toluene-d8	0.1 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-02  
 Date Sampled: 08/23/07 09:20  
 Percent Solids: 94  
 Initial Volume: 5.5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-02  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0048	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0048	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0048	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0048	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0048	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0048	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.242		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0484	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0484		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0048	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0484	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0484	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0048	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0048		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0048		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0097	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-02  
 Date Sampled: 08/23/07 09:20  
 Percent Solids: 94  
 Initial Volume: 5.5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-02  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0048		1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0048	10	1	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0097		1	08/24/07
Chloroform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Chloromethane	ND	mg/kg dry	0.0097		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
Dibromomethane	ND	mg/kg dry	0.0048		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0097		1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0048		1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0048	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0048	90	1	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0242	0.1	1	08/24/07
Naphthalene	ND	mg/kg dry	0.0048	4	1	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Styrene	ND	mg/kg dry	0.0048	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0048		1	08/24/07
Toluene	ND	mg/kg dry	0.0048	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Trichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0048		1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0097	0.9	1	08/24/07
Xylene O	ND	mg/kg dry	0.0048	400	1	08/24/07
Xylene P,M	ND	mg/kg dry	0.0097	400	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: L0712213-02  
Date Sampled: 08/23/07 09:20  
Percent Solids: 94  
Initial Volume: 1  
Final Volume: 1  
Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-02  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0145 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	0.5 %	+	70-130
Surrogate: 4-Bromofluorobenzene	0.2 %	+	70-130
Surrogate: Dibromofluoromethane	0.8 %	+	70-130
Surrogate: Toluene-d8	0.08 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-03  
 Date Sampled: 08/23/07 09:25  
 Percent Solids: 95  
 Initial Volume: 5.5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-03  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0048	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0048	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0048	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0048	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0048	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0048	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.239		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0478	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0478		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0048	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0478	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0478	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0048	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0048		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0048		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0096	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: L0712213-03  
Date Sampled: 08/23/07 09:25  
Percent Solids: 95  
Initial Volume: 5.5  
Final Volume: 10  
Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-03  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0048		1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0048	10	1	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0096		1	08/24/07
Chloroform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Chloromethane	ND	mg/kg dry	0.0096		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
Dibromomethane	ND	mg/kg dry	0.0048		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0096		1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0048		1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0048	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0048	90	1	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0239	0.1	1	08/24/07
Naphthalene	ND	mg/kg dry	0.0048	4	1	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Styrene	ND	mg/kg dry	0.0048	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0048		1	08/24/07
Toluene	ND	mg/kg dry	0.0048	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Trichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0048		1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0096	0.9	1	08/24/07
Xylene O	ND	mg/kg dry	0.0048	400	1	08/24/07
Xylene P,M	ND	mg/kg dry	0.0096	400	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: L0712213-03  
Date Sampled: 08/23/07 09:25  
Percent Solids: 95  
Initial Volume: 1  
Final Volume: 1  
Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-03  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0144 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	0.3 %	+	70-130
Surrogate: 4-Bromofluorobenzene	0.2 %	+	70-130
Surrogate: Dibromofluoromethane	0.7 %	+	70-130
Surrogate: Toluene-d8	0.1 %	+	70-130





# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-04  
 Date Sampled: 08/23/07 09:30  
 Percent Solids: 93  
 Initial Volume: 5.8  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-04  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0046	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0046	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0046	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0046	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0046		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0046		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0046	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0046	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0046	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0046	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.232		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0046		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0463	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0046		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0463		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0046		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0046	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0463	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0463	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0046	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0046		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0046		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0093	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-04  
 Date Sampled: 08/23/07 09:30  
 Percent Solids: 93  
 Initial Volume: 5.8  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-04  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0046		1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0046	10	1	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0046	1	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0093		1	08/24/07
Chloroform	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Chloromethane	ND	mg/kg dry	0.0093		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0046	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0046	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0046	0.005	1	08/24/07
Dibromomethane	ND	mg/kg dry	0.0046		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0093		1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0046		1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0046		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0046		1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0046	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0046	90	1	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0046	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0232	0.1	1	08/24/07
Naphthalene	ND	mg/kg dry	0.0046	4	1	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
Styrene	ND	mg/kg dry	0.0046	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0046	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0046		1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0046	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0046		1	08/24/07
Toluene	ND	mg/kg dry	0.0046	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0046	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0046	0.01	1	08/24/07
Trichloroethene	ND	mg/kg dry	0.0046	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0046		1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0093	0.9	1	08/24/07
Xylene O	ND	mg/kg dry	0.0046	400	1	08/24/07
Xylene P,M	ND	mg/kg dry	0.0093	400	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: L0712213-04  
Date Sampled: 08/23/07 09:30  
Percent Solids: 93  
Initial Volume: 1  
Final Volume: 1  
Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-04  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0139 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	0.3 %	+	70-130
Surrogate: 4-Bromofluorobenzene	0.1 %	+	70-130
Surrogate: Dibromofluoromethane	0.6 %	+	70-130
Surrogate: Toluene-d8	0.04 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-05  
 Date Sampled: 08/23/07 09:35  
 Percent Solids: 90  
 Initial Volume: 5.8  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-05  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0048	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0048	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0048	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0048		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0048	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0048	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0048	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.239		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0048		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0479	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0479		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0048		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0048	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0479	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0479	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0048	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0048		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0048		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0096	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-05  
 Date Sampled: 08/23/07 09:35  
 Percent Solids: 90  
 Initial Volume: 5.8  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-05  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0048		1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0048	10	1	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0048	1	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0096		1	08/24/07
Chloroform	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Chloromethane	ND	mg/kg dry	0.0096		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0048	0.005	1	08/24/07
Dibromomethane	ND	mg/kg dry	0.0048		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0096		1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0048		1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0048	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0048	90	1	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0048	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0239	0.1	1	08/24/07
Naphthalene	ND	mg/kg dry	0.0048	4	1	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Styrene	ND	mg/kg dry	0.0048	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0048	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0048		1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0048		1	08/24/07
Toluene	ND	mg/kg dry	0.0048	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0048	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0048	0.01	1	08/24/07
Trichloroethene	ND	mg/kg dry	0.0048	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0048		1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0096	0.9	1	08/24/07
Xylene O	ND	mg/kg dry	0.0048	400	1	08/24/07
Xylene P,M	ND	mg/kg dry	0.0096	400	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-05  
 Date Sampled: 08/23/07 09:35  
 Percent Solids: 90  
 Initial Volume: 1  
 Final Volume: 1  
 Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-05  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0144 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	0.6 %	+	70-130
Surrogate: 4-Bromofluorobenzene	0.2 %	+	70-130
Surrogate: Dibromofluoromethane	0.6 %	+	70-130
Surrogate: Toluene-d8	0.08 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-06  
 Date Sampled: 08/23/07 09:40  
 Percent Solids: 89  
 Initial Volume: 5.6  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-06  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0050	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0050	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0050	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0050	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0050		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0050		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0050		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0050	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0050		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0050	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0050	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0050		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0050	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.251		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0050		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0502	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0050		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0502		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0050		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0050	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0502	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0502	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0050	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0050		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0050		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0050	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0050	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0100	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-06  
 Date Sampled: 08/23/07 09:40  
 Percent Solids: 89  
 Initial Volume: 5.6  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-06  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0050		1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0050	10	1	08/24/07
Chlorobenzene	ND	mg/kg dry	0.0050	1	1	08/24/07
Chloroethane	ND	mg/kg dry	0.0100		1	08/24/07
Chloroform	ND	mg/kg dry	0.0050	0.1	1	08/24/07
Chloromethane	ND	mg/kg dry	0.0100		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0050	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0050	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0050	0.005	1	08/24/07
Dibromomethane	ND	mg/kg dry	0.0050		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0100		1	08/24/07
Diethyl Ether	ND	mg/kg dry	0.0050		1	08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0050		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0050		1	08/24/07
Ethylbenzene	ND	mg/kg dry	0.0050	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0050	90	1	08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0050	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg dry	0.0251	0.1	1	08/24/07
Naphthalene	ND	mg/kg dry	0.0050	4	1	08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
Styrene	ND	mg/kg dry	0.0050	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0050	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0050		1	08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0050	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0050		1	08/24/07
Toluene	ND	mg/kg dry	0.0050	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0050	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0050	0.01	1	08/24/07
Trichloroethene	ND	mg/kg dry	0.0050	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0050		1	08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0100	0.9	1	08/24/07
Xylene O	ND	mg/kg dry	0.0050	400	1	08/24/07
Xylene P,M	ND	mg/kg dry	0.0100	400	1	08/24/07





# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-06  
 Date Sampled: 08/23/07 09:40  
 Percent Solids: 89  
 Initial Volume: 1  
 Final Volume: 1  
 Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-06  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0150 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	%	+	70-130
Surrogate: 4-Bromofluorobenzene	%	+	70-130
Surrogate: Dibromofluoromethane	%	+	70-130
Surrogate: Toluene-d8	%	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-07  
 Date Sampled: 08/23/07 00:00  
 Percent Solids: 96  
 Initial Volume: 5.5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-07  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg dry	0.0047	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0047	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg dry	0.0047	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg dry	0.0047	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg dry	0.0047		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0047		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg dry	0.0047		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0047	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0047	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0047		1	08/24/07
1,2-Dibromoethane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg dry	0.0047	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0047	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg dry	0.0047	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg dry	0.0047		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg dry	0.0047	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg dry	0.237		1	08/24/07
2,2-Dichloropropane	ND	mg/kg dry	0.0047		1	08/24/07
2-Butanone	ND	mg/kg dry	0.0473	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg dry	0.0047		1	08/24/07
2-Hexanone	ND	mg/kg dry	0.0473		1	08/24/07
4-Chlorotoluene	ND	mg/kg dry	0.0047		1	08/24/07
4-Isopropyltoluene	ND	mg/kg dry	0.0047	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0473	0.4	1	08/24/07
Acetone	ND	mg/kg dry	0.0473	3	1	08/24/07
Benzene	ND	mg/kg dry	0.0047	2	1	08/24/07
Bromobenzene	ND	mg/kg dry	0.0047		1	08/24/07
Bromochloromethane	ND	mg/kg dry	0.0047		1	08/24/07
Bromodichloromethane	ND	mg/kg dry	0.0047	0.1	1	08/24/07
Bromoform	ND	mg/kg dry	0.0047	0.1	1	08/24/07
Bromomethane	ND	mg/kg dry	0.0095	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-07  
 Date Sampled: 08/23/07 00:00  
 Percent Solids: 96  
 Initial Volume: 5.5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-07  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg dry	0.0047	1	08/24/07
Carbon Tetrachloride	ND	mg/kg dry	0.0047	10	1 08/24/07
Chlorobenzene	ND	mg/kg dry	0.0047	1	1 08/24/07
Chloroethane	ND	mg/kg dry	0.0095		1 08/24/07
Chloroform	ND	mg/kg dry	0.0047	0.1	1 08/24/07
Chloromethane	ND	mg/kg dry	0.0095		1 08/24/07
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0047	0.3	1 08/24/07
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0047	0.01	1 08/24/07
Dibromochloromethane	ND	mg/kg dry	0.0047	0.005	1 08/24/07
Dibromomethane	ND	mg/kg dry	0.0047		1 08/24/07
Dichlorodifluoromethane	ND	mg/kg dry	0.0095		1 08/24/07
Diethyl Ether	ND	mg/kg dry	0.0047		1 08/24/07
Di-isopropyl ether	ND	mg/kg dry	0.0047		1 08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0047		1 08/24/07
Ethylbenzene	ND	mg/kg dry	0.0047	80	1 08/24/07
Hexachlorobutadiene	ND	mg/kg dry	0.0047	90	1 08/24/07
Isopropylbenzene	ND	mg/kg dry	0.0047	100	1 08/24/07
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0047	0.1	1 08/24/07
Methylene Chloride	ND	mg/kg dry	0.0237	0.1	1 08/24/07
Naphthalene	ND	mg/kg dry	0.0047	4	1 08/24/07
n-Butylbenzene	ND	mg/kg dry	0.0047	100	1 08/24/07
n-Propylbenzene	ND	mg/kg dry	0.0047	100	1 08/24/07
sec-Butylbenzene	ND	mg/kg dry	0.0047	100	1 08/24/07
Styrene	ND	mg/kg dry	0.0047	3	1 08/24/07
tert-Butylbenzene	ND	mg/kg dry	0.0047	100	1 08/24/07
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0047		1 08/24/07
Tetrachloroethene	ND	mg/kg dry	0.0047	1	1 08/24/07
Tetrahydrofuran	ND	mg/kg dry	0.0047		1 08/24/07
Toluene	ND	mg/kg dry	0.0047	30	1 08/24/07
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0047	1	1 08/24/07
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0047	0.01	1 08/24/07
Trichloroethene	ND	mg/kg dry	0.0047	0.3	1 08/24/07
Trichlorofluoromethane	ND	mg/kg dry	0.0047		1 08/24/07
Vinyl Chloride	ND	mg/kg dry	0.0095	0.9	1 08/24/07
Xylene O	ND	mg/kg dry	0.0047	400	1 08/24/07
Xylene P,M	ND	mg/kg dry	0.0095	400	1 08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: L0712213-07  
 Date Sampled: 08/23/07 00:00  
 Percent Solids: 96  
 Initial Volume: 1  
 Final Volume: 1  
 Extraction Method: [CALC]

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-07  
 Sample Matrix: Soil  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg dry 0.0142 400 0 08/24/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	%	+	70-130
Surrogate: 4-Bromofluorobenzene	0.2 %	+	70-130
Surrogate: Dibromofluoromethane	0.6 %	+	70-130
Surrogate: Toluene-d8	0.04 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling  
 Client Sample ID: Trip Blank L0712213-08  
 Date Sampled: 08/22/07 00:00  
 Percent Solids: N/A  
 Initial Volume: 5  
 Final Volume: 10  
 Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
 ESS Laboratory Sample ID: 0708357-08  
 Sample Matrix: Solid  
 Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

MA - S2GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.005	0.1	1	08/24/07
1,1,1-Trichloroethane	ND	mg/kg	0.005	30	1	08/24/07
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.005	0.005	1	08/24/07
1,1,2-Trichloroethane	ND	mg/kg	0.005	0.1	1	08/24/07
1,1-Dichloroethane	ND	mg/kg	0.005	0.4	1	08/24/07
1,1-Dichloroethene	ND	mg/kg	0.005	3	1	08/24/07
1,1-Dichloropropene	ND	mg/kg	0.005		1	08/24/07
1,2,3-Trichlorobenzene	ND	mg/kg	0.005		1	08/24/07
1,2,3-Trichloropropane	ND	mg/kg	0.005		1	08/24/07
1,2,4-Trichlorobenzene	ND	mg/kg	0.005	2	1	08/24/07
1,2,4-Trimethylbenzene	ND	mg/kg	0.005	100	1	08/24/07
1,2-Dibromo-3-Chloropropane	ND	mg/kg	0.005		1	08/24/07
1,2-Dibromoethane	ND	mg/kg	0.005	0.1	1	08/24/07
1,2-Dichlorobenzene	ND	mg/kg	0.005	9	1	08/24/07
1,2-Dichloroethane	ND	mg/kg	0.005	0.1	1	08/24/07
1,2-Dichloropropane	ND	mg/kg	0.005	0.1	1	08/24/07
1,3,5-Trimethylbenzene	ND	mg/kg	0.005	100	1	08/24/07
1,3-Dichlorobenzene	ND	mg/kg	0.005	1	1	08/24/07
1,3-Dichloropropane	ND	mg/kg	0.005		1	08/24/07
1,4-Dichlorobenzene	ND	mg/kg	0.005	0.7	1	08/24/07
1,4-Dioxane - Screen	ND	mg/kg	0.2		1	08/24/07
2,2-Dichloropropane	ND	mg/kg	0.005		1	08/24/07
2-Butanone	ND	mg/kg	0.05	0.3	1	08/24/07
2-Chlorotoluene	ND	mg/kg	0.005		1	08/24/07
2-Hexanone	ND	mg/kg	0.05		1	08/24/07
4-Chlorotoluene	ND	mg/kg	0.005		1	08/24/07
4-Isopropyltoluene	ND	mg/kg	0.005	100	1	08/24/07
4-Methyl-2-Pentanone	ND	mg/kg	0.05	0.4	1	08/24/07
Acetone	ND	mg/kg	0.05	3	1	08/24/07
Benzene	ND	mg/kg	0.005	2	1	08/24/07
Bromobenzene	ND	mg/kg	0.005		1	08/24/07
Bromochloromethane	ND	mg/kg	0.005		1	08/24/07
Bromodichloromethane	ND	mg/kg	0.005	0.1	1	08/24/07
Bromoform	ND	mg/kg	0.005	0.1	1	08/24/07
Bromomethane	ND	mg/kg	0.01	10	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: Trip Blank L0712213-08  
Date Sampled: 08/22/07 00:00  
Percent Solids: N/A  
Initial Volume: 5  
Final Volume: 10  
Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-08  
Sample Matrix: Solid  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Carbon Disulfide	ND	mg/kg	0.005		1	08/24/07
Carbon Tetrachloride	ND	mg/kg	0.005	10	1	08/24/07
Chlorobenzene	ND	mg/kg	0.005	1	1	08/24/07
Chloroethane	ND	mg/kg	0.01		1	08/24/07
Chloroform	ND	mg/kg	0.005	0.1	1	08/24/07
Chloromethane	ND	mg/kg	0.01		1	08/24/07
cis-1,2-Dichloroethene	ND	mg/kg	0.005	0.3	1	08/24/07
cis-1,3-Dichloropropene	ND	mg/kg	0.005	0.01	1	08/24/07
Dibromochloromethane	ND	mg/kg	0.005	0.005	1	08/24/07
Dibromomethane	ND	mg/kg	0.005		1	08/24/07
Dichlorodifluoromethane	ND	mg/kg	0.01		1	08/24/07
Diethyl Ether	ND	mg/kg	0.005		1	08/24/07
Di-isopropyl ether	ND	mg/kg	0.005		1	08/24/07
Ethyl tertiary-butyl ether	ND	mg/kg	0.005		1	08/24/07
Ethylbenzene	ND	mg/kg	0.005	80	1	08/24/07
Hexachlorobutadiene	ND	mg/kg	0.005	90	1	08/24/07
Isopropylbenzene	ND	mg/kg	0.005	100	1	08/24/07
Methyl tert-Butyl Ether	ND	mg/kg	0.005	0.1	1	08/24/07
Methylene Chloride	ND	mg/kg	0.02	0.1	1	08/24/07
Naphthalene	ND	mg/kg	0.005	4	1	08/24/07
n-Butylbenzene	ND	mg/kg	0.005	100	1	08/24/07
n-Propylbenzene	ND	mg/kg	0.005	100	1	08/24/07
sec-Butylbenzene	ND	mg/kg	0.005	100	1	08/24/07
Styrene	ND	mg/kg	0.005	3	1	08/24/07
tert-Butylbenzene	ND	mg/kg	0.005	100	1	08/24/07
Tertiary-amyl methyl ether	ND	mg/kg	0.005		1	08/24/07
Tetrachloroethene	ND	mg/kg	0.005	1	1	08/24/07
Tetrahydrofuran	ND	mg/kg	0.005		1	08/24/07
Toluene	ND	mg/kg	0.005	30	1	08/24/07
trans-1,2-Dichloroethene	ND	mg/kg	0.005	1	1	08/24/07
trans-1,3-Dichloropropene	ND	mg/kg	0.005	0.01	1	08/24/07
Trichloroethene	ND	mg/kg	0.005	0.3	1	08/24/07
Trichlorofluoromethane	ND	mg/kg	0.005		1	08/24/07
Vinyl Chloride	ND	mg/kg	0.01	0.9	1	08/24/07
Xylene O	ND	mg/kg	0.005	400	1	08/24/07
Xylene P,M	ND	mg/kg	0.01	400	1	08/24/07



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling  
Client Sample ID: Trip Blank L0712213-08  
Date Sampled: 08/22/07 00:00  
Percent Solids: N/A  
Initial Volume: 5  
Final Volume: 10  
Extraction Method: 5035

ESS Laboratory Work Order: 0708357  
ESS Laboratory Sample ID: 0708357-08  
Sample Matrix: Solid  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Low Level

Xylenes (Total) ND mg/kg 0.008 400 0 08/24/07

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.6 %	+	70-130
<i>Surrogate: 4-Bromofluorobenzene</i>	0.4 %	+	70-130
<i>Surrogate: Dibromofluoromethane</i>	0.7 %	+	70-130
<i>Surrogate: Toluene-d8</i>	0.08 %	+	70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BH72405 - 5035

**Blank**

1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethene	ND	0.0050	mg/kg wet
1,1-Dichloropropene	ND	0.0050	mg/kg wet
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet
1,2-Dibromoethane	ND	0.0050	mg/kg wet
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet
1,2-Dichloroethane	ND	0.0050	mg/kg wet
1,2-Dichloropropane	ND	0.0050	mg/kg wet
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet
1,3-Dichloropropane	ND	0.0050	mg/kg wet
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet
1,4-Dioxane - Screen	ND	0.250	mg/kg wet
2,2-Dichloropropane	ND	0.0050	mg/kg wet
2-Butanone	ND	0.0500	mg/kg wet
2-Chlorotoluene	ND	0.0050	mg/kg wet
2-Hexanone	ND	0.0500	mg/kg wet
4-Chlorotoluene	ND	0.0050	mg/kg wet
4-Isopropyltoluene	ND	0.0050	mg/kg wet
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet
Acetone	ND	0.0500	mg/kg wet
Benzene	ND	0.0050	mg/kg wet
Bromobenzene	ND	0.0050	mg/kg wet
Bromochloromethane	ND	0.0050	mg/kg wet
Bromodichloromethane	ND	0.0050	mg/kg wet
Bromoform	ND	0.0050	mg/kg wet
Bromomethane	ND	0.0100	mg/kg wet
Carbon Disulfide	ND	0.0050	mg/kg wet
Carbon Tetrachloride	ND	0.0050	mg/kg wet
Chlorobenzene	ND	0.0050	mg/kg wet
Chloroethane	ND	0.0100	mg/kg wet
Chloroform	ND	0.0050	mg/kg wet
Chloromethane	ND	0.0100	mg/kg wet
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet
Dibromochloromethane	ND	0.0050	mg/kg wet
Dibromomethane	ND	0.0050	mg/kg wet





# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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#### 5035/8260B Volatile Organic Compounds / Low Level

#### Batch BH72405 - 5035

Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							
Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Trichlorofluoromethane	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							
Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.200		ug/L	25.0		0.8	70-130			+
Surrogate: 4-Bromofluorobenzene	0.100		ug/L	25.0		0.4	70-130			+
Surrogate: Dibromofluoromethane	0.220		ug/L	25.0		0.9	70-130			+
Surrogate: Toluene-d8	0.0300		ug/L	25.0		0.1	70-130			+

#### LCS

1,1,1,2-Tetrachloroethane	23.6		ug/L	25.0		94	70-130			
1,1,1-Trichloroethane	23.6		ug/L	25.0		94	70-130			
1,1,2,2-Tetrachloroethane	22.6		ug/L	25.0		90	70-130			
1,1,2-Trichloroethane	23.1		ug/L	25.0		92	70-130			
1,1-Dichloroethane	23.4		ug/L	25.0		94	70-130			
1,1-Dichloroethene	23.7		ug/L	25.0		95	70-130			
1,1-Dichloropropene	23.8		ug/L	25.0		95	70-130			
1,2,3-Trichlorobenzene	23.2		ug/L	25.0		93	70-130			
1,2,3-Trichloropropane	22.6		ug/L	25.0		90	70-130			
1,2,4-Trichlorobenzene	23.2		ug/L	25.0		93	70-130			
1,2,4-Trimethylbenzene	23.6		ug/L	25.0		94	70-130			
1,2-Dibromo-3-Chloropropane	22.8		ug/L	25.0		91	70-130			
1,2-Dibromoethane	23.3		ug/L	25.0		93	70-130			
1,2-Dichlorobenzene	22.8		ug/L	25.0		91	70-130			
1,2-Dichloroethane	22.5		ug/L	25.0		90	70-130			



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical

Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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#### 5035/8260B Volatile Organic Compounds / Low Level

#### Batch BH72405 - 5035

1,2-Dichloropropane	23.5		ug/L	25.0		94	70-130			
1,3,5-Trimethylbenzene	23.5		ug/L	25.0		94	70-130			
1,3-Dichlorobenzene	22.4		ug/L	25.0		90	70-130			
1,3-Dichloropropane	23.7		ug/L	25.0		95	70-130			
1,4-Dichlorobenzene	22.4		ug/L	25.0		90	70-130			
1,4-Dioxane - Screen	465		ug/L	500		93	70-130			
2,2-Dichloropropane	26.4		ug/L	25.0		106	70-130			
2-Butanone	113		ug/L	125		90	70-130			
2-Chlorotoluene	22.6		ug/L	25.0		90	70-130			
2-Hexanone	113		ug/L	125		90	70-130			
4-Chlorotoluene	22.8		ug/L	25.0		91	70-130			
4-Isopropyltoluene	22.8		ug/L	25.0		91	70-130			
4-Methyl-2-Pentanone	110		ug/L	125		88	70-130			
Acetone	122		ug/L	125		98	70-130			
Benzene	23.4		ug/L	25.0		94	70-130			
Bromobenzene	23.4		ug/L	25.0		94	70-130			
Bromochloromethane	24.8		ug/L	25.0		99	70-130			
Bromodichloromethane	23.1		ug/L	25.0		92	70-130			
Bromoform	23.6		ug/L	25.0		94	70-130			
Bromomethane	31.3		ug/L	25.0		125	70-130			
Carbon Disulfide	26.3		ug/L	25.0		105	70-130			
Carbon Tetrachloride	23.4		ug/L	25.0		94	70-130			
Chlorobenzene	23.0		ug/L	25.0		92	70-130			
Chloroethane	30.2		ug/L	25.0		121	70-130			
Chloroform	23.4		ug/L	25.0		94	70-130			
Chloromethane	25.1		ug/L	25.0		100	70-130			
cis-1,2-Dichloroethene	23.3		ug/L	25.0		93	70-130			
cis-1,3-Dichloropropene	22.8		ug/L	25.0		91	70-130			
Dibromochloromethane	22.8		ug/L	25.0		91	70-130			
Dibromomethane	22.9		ug/L	25.0		92	70-130			
Dichlorodifluoromethane	28.0		ug/L	25.0		112	70-130			
Diethyl Ether	23.8		ug/L	25.0		95	70-130			
Di-isopropyl ether	23.7		ug/L	25.0		95	70-130			
Ethyl tertiary-butyl ether	22.7		ug/L	25.0		91	70-130			
Ethylbenzene	23.8		ug/L	25.0		95	70-130			
Hexachlorobutadiene	23.7		ug/L	25.0		95	70-130			
Isopropylbenzene	21.3		ug/L	25.0		85	70-130			
Methyl tert-Butyl Ether	23.1		ug/L	25.0		92	70-130			
Methylene Chloride	25.9		ug/L	25.0		104	70-130			
Naphthalene	23.2		ug/L	25.0		93	70-130			
n-Butylbenzene	23.7		ug/L	25.0		95	70-130			
n-Propylbenzene	23.5		ug/L	25.0		94	70-130			
sec-Butylbenzene	23.0		ug/L	25.0		92	70-130			
Styrene	24.0		ug/L	25.0		96	70-130			
tert-Butylbenzene	23.0		ug/L	25.0		92	70-130			
Tertiary-amyl methyl ether	23.0		ug/L	25.0		92	70-130			



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical

Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>5035/8260B Volatile Organic Compounds / Low Level</b>										
<b>Batch BH72405 - 5035</b>										
Tetrachloroethene	24.5		ug/L	25.0		98	70-130			
Tetrahydrofuran	23.3		ug/L	25.0		93	70-130			
Toluene	23.2		ug/L	25.0		93	70-130			
trans-1,2-Dichloroethene	23.7		ug/L	25.0		95	70-130			
trans-1,3-Dichloropropene	21.3		ug/L	25.0		85	70-130			
Trichloroethene	23.4		ug/L	25.0		94	70-130			
Trichlorofluoromethane	21.2		ug/L	25.0		85	70-130			
Vinyl Chloride	25.1		ug/L	25.0		100	70-130			
Xylene O	23.4		ug/L	25.0		94	70-130			
Xylene P,M	46.8		ug/L	50.0		94	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.3		ug/L	25.0		93	70-130			
Surrogate: 4-Bromofluorobenzene	24.3		ug/L	25.0		97	70-130			
Surrogate: Dibromofluoromethane	25.1		ug/L	25.0		100	70-130			
Surrogate: Toluene-d8	24.8		ug/L	25.0		99	70-130			
<b>LCS Dup</b>										
1,1,1,2-Tetrachloroethane	23.9		ug/L	25.0		96	70-130	1	20	
1,1,1-Trichloroethane	23.5		ug/L	25.0		94	70-130	0.4	20	
1,1,2,2-Tetrachloroethane	23.7		ug/L	25.0		95	70-130	5	20	
1,1,2-Trichloroethane	23.6		ug/L	25.0		94	70-130	2	20	
1,1-Dichloroethane	23.4		ug/L	25.0		94	70-130	0	20	
1,1-Dichloroethene	23.5		ug/L	25.0		94	70-130	0.8	20	
1,1-Dichloropropene	23.6		ug/L	25.0		94	70-130	0.8	20	
1,2,3-Trichlorobenzene	23.0		ug/L	25.0		92	70-130	0.9	20	
1,2,3-Trichloropropane	23.1		ug/L	25.0		92	70-130	2	20	
1,2,4-Trichlorobenzene	22.9		ug/L	25.0		92	70-130	1	20	
1,2,4-Trimethylbenzene	23.7		ug/L	25.0		95	70-130	0.4	20	
1,2-Dibromo-3-Chloropropane	23.3		ug/L	25.0		93	70-130	2	20	
1,2-Dibromoethane	23.7		ug/L	25.0		95	70-130	2	20	
1,2-Dichlorobenzene	23.4		ug/L	25.0		94	70-130	3	20	
1,2-Dichloroethane	22.8		ug/L	25.0		91	70-130	1	20	
1,2-Dichloropropane	23.7		ug/L	25.0		95	70-130	0.8	20	
1,3,5-Trimethylbenzene	23.8		ug/L	25.0		95	70-130	1	20	
1,3-Dichlorobenzene	22.8		ug/L	25.0		91	70-130	2	20	
1,3-Dichloropropane	24.0		ug/L	25.0		96	70-130	1	20	
1,4-Dichlorobenzene	22.8		ug/L	25.0		91	70-130	2	20	
1,4-Dioxane - Screen	479		ug/L	500		96	70-130	3	20	
2,2-Dichloropropane	27.1		ug/L	25.0		108	70-130	3	20	
2-Butanone	115		ug/L	125		92	70-130	2	20	
2-Chlorotoluene	24.8		ug/L	25.0		99	70-130	9	20	
2-Hexanone	115		ug/L	125		92	70-130	2	20	
4-Chlorotoluene	23.1		ug/L	25.0		92	70-130	1	20	
4-Isopropyltoluene	22.9		ug/L	25.0		92	70-130	0.4	20	
4-Methyl-2-Pentanone	117		ug/L	125		94	70-130	6	20	
Acetone	117		ug/L	125		94	70-130	4	20	
Benzene	23.6		ug/L	25.0		94	70-130	0.9	20	
Bromobenzene	23.6		ug/L	25.0		94	70-130	0.9	20	



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
 Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>5035/8260B Volatile Organic Compounds / Low Level</b>										
<b>Batch BH72405 - 5035</b>										
Bromochloromethane	25.2		ug/L	25.0		101	70-130	2	20	
Bromodichloromethane	23.3		ug/L	25.0		93	70-130	0.9	20	
Bromoform	24.1		ug/L	25.0		96	70-130	2	20	
Bromomethane	30.4		ug/L	25.0		122	70-130	3	20	
Carbon Disulfide	25.5		ug/L	25.0		102	70-130	3	20	
Carbon Tetrachloride	23.5		ug/L	25.0		94	70-130	0.4	20	
Chlorobenzene	23.2		ug/L	25.0		93	70-130	0.9	20	
Chloroethane	29.3		ug/L	25.0		117	70-130	3	20	
Chloroform	23.4		ug/L	25.0		94	70-130	0	20	
Chloromethane	24.8		ug/L	25.0		99	70-130	1	20	
cis-1,2-Dichloroethene	23.4		ug/L	25.0		94	70-130	0.4	20	
cis-1,3-Dichloropropene	23.1		ug/L	25.0		92	70-130	1	20	
Dibromochloromethane	23.1		ug/L	25.0		92	70-130	1	20	
Dibromomethane	23.6		ug/L	25.0		94	70-130	3	20	
Dichlorodifluoromethane	28.0		ug/L	25.0		112	70-130	0	20	
Diethyl Ether	24.1		ug/L	25.0		96	70-130	1	20	
Di-isopropyl ether	24.2		ug/L	25.0		97	70-130	2	20	
Ethyl tertiary-butyl ether	23.3		ug/L	25.0		93	70-130	3	20	
Ethylbenzene	23.9		ug/L	25.0		96	70-130	0.4	20	
Hexachlorobutadiene	23.8		ug/L	25.0		95	70-130	0.4	20	
Isopropylbenzene	21.7		ug/L	25.0		87	70-130	2	20	
Methyl tert-Butyl Ether	23.5		ug/L	25.0		94	70-130	2	20	
Methylene Chloride	25.9		ug/L	25.0		104	70-130	0	20	
Naphthalene	23.0		ug/L	25.0		92	70-130	0.9	20	
n-Butylbenzene	23.7		ug/L	25.0		95	70-130	0	20	
n-Propylbenzene	22.7		ug/L	25.0		91	70-130	3	20	
sec-Butylbenzene	23.3		ug/L	25.0		93	70-130	1	20	
Styrene	24.1		ug/L	25.0		96	70-130	0.4	20	
tert-Butylbenzene	23.7		ug/L	25.0		95	70-130	3	20	
Tertiary-amyl methyl ether	23.8		ug/L	25.0		95	70-130	3	20	
Tetrachloroethene	23.1		ug/L	25.0		92	70-130	6	20	
Tetrahydrofuran	24.6		ug/L	25.0		98	70-130	5	20	
Toluene	23.4		ug/L	25.0		94	70-130	0.9	20	
trans-1,2-Dichloroethene	23.9		ug/L	25.0		96	70-130	0.8	20	
trans-1,3-Dichloropropene	21.7		ug/L	25.0		87	70-130	2	20	
Trichloroethene	23.5		ug/L	25.0		94	70-130	0.4	20	
Trichlorofluoromethane	21.0		ug/L	25.0		84	70-130	0.9	20	
Vinyl Chloride	25.0		ug/L	25.0		100	70-130	0.4	20	
Xylene O	23.3		ug/L	25.0		93	70-130	0.4	20	
Xylene P,M	47.0		ug/L	50.0		94	70-130	0.4	20	
Surrogate: 1,2-Dichloroethane-d4	23.7		ug/L	25.0		95	70-130			
Surrogate: 4-Bromofluorobenzene	24.2		ug/L	25.0		97	70-130			
Surrogate: Dibromofluoromethane	24.8		ug/L	25.0		99	70-130			
Surrogate: Toluene-d8	24.6		ug/L	25.0		98	70-130			



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### Notes and Definitions

- U Analyte included in the analysis, but not detected
- IM Internal Standard was outside of criteria due to matrix (UCM present).
- 7 Due to equipment malfunction, surrogates were not added to any of the low level VOA samples. Only 1 vial was received.
- + Outside QC Limits.
- ND Analyte NOT DETECTED above the detection limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- mg/kg Results reported as wet weight
- TCLP Toxicity Characteristic Leachate Procedure
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- TIC A forward library search of the NBS Mass Spectral Library was performed on this sample using the McLafferty Probability Base Matching (PBM) Algorithm. An estimated concentration of non-TCL compounds tentatively identified is quantified by the internal standard method. The nearest internal standard free of interferences was used to quantify. A response factor of one was assumed. This search was inclusive of the ten largest peaks greater than ten percent of the nearest internal standard.
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- ¶ The state of RI does not grant certification for this method for non-potables.



# ESS Laboratory

*Division of Thielsch Engineering, Inc.*

## *CERTIFICATE OF ANALYSIS*

Client Name: Alpha Analytical  
Client Project ID: Alpha Analytical Sampling

ESS Laboratory Work Order: 0708357

### **ESS LABORATORY CERTIFICATIONS**

U.S. Army Corps of Engineers  
Soil and Water

Navy Installation Restoration QA Program  
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405  
Potable Water  
Non Potable Water

New York (NELAP accredited): 11313  
Potable Water  
Non Potable Water  
Solid and Hazardous Waste

United States Department of Agriculture  
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002  
Potable Water  
Non Potable Water  
Soil and Hazardous Waste

Maryland: 301  
Potable Water



To: ESS Cranston

0709357



# CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA RAYNHAM, MA  
TEL: 508-898-9220 TEL: 508-822-9300  
FAX: 508-898-9193 FAX: 508-822-3288

## Project Information

Project Name:

Project Location:

Project #:

Project Manager: P. Henriksen

ALPHA Quote #:

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: 8/27/07 Time:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

## Date Rec'd in Lab:

## Report Information - Data Deliverables

FAX  EMAIL

ADEX  Add'l Deliverables

## ALPHA Job #:

## Billing Information

Same as Client info PO #:

## Regulatory Requirements/Report Limits

State /Fed Program MA MCP Criteria Unlined Landfill Reuse Criteria

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

Yes  No Are MCP Analytical Methods Required?

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

ANALYSIS			SAMPLE HANDLING		TOTAL # BOTTLES
VOCs (High) 8260	VOCs (Low) 8260	Total Solids	Filtration		
X	X	X	<input type="checkbox"/> Done		3
			<input type="checkbox"/> Not needed		3
			<input type="checkbox"/> Lab to do Preservation		3
			<input type="checkbox"/> Lab to do		3
			(Please specify below)		3
					1

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS			Sample Specific Comments	TOTAL # BOTTLES
		Date	Time			VOCs (High) 8260	VOCs (Low) 8260	Total Solids		
	L0712213-01	8/23/07	0915	S		X	X	X		3
	-02		0920							3
	-03		0925							3
	-04		0930							3
	-05		0935							3
	-06		0940							3
	-07		2400							3
	-08	8/22/07	145							1
	TRIP BLANK KD 8/23/07									
	Cooler temp 5.0°C									

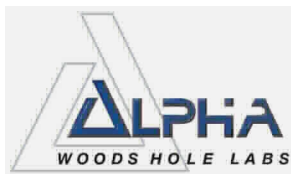
PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type V V P  
Preservative Meth H2O NA

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.

Relinquished By:	Date/Time	Received By:	Date/Time
P. F. [Signature]	8/23/07 1410	Paul [Signature]	8/23/07 14:20
Paul [Signature]	8/23/07	P. [Signature]	8/23/07 16:21



## ANALYTICAL REPORT

Lab Number: L0712700

Client: ERM-New England  
399 Boylston Street  
6th Floor  
Boston, MA 02116

ATTN: Jeremy Picard

Project Name: NA SOIL EXCAVATION

Project Number: 0051545

Report Date: 09/12/07

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (200305), NJ (MA935), RI (LAO00065), ME (2006012), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0712700-01	SP-J1-20070904-01	RAYTHEON WAYLAND
L0712700-02	SP-J2-20070904-01	RAYTHEON WAYLAND
L0712700-03	SP-J3-20070904-01	RAYTHEON WAYLAND
L0712700-04	SP-J4-20070904-01	RAYTHEON WAYLAND
L0712700-05	SP-J5-20070904-01	RAYTHEON WAYLAND
L0712700-06	SP-J6-20070904-01	RAYTHEON WAYLAND

Project Name: NA SOIL EXCAVATION

Lab Number: L0712700

Project Number: 0051545

Report Date: 09/12/07

### MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

<b>An affirmative response to questions A, B, C &amp; D is required for "Presumptive Certainty" status</b>		
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
<b>A response to questions E and F is required for "Presumptive Certainty" status</b>		
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
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

MCP Related Narratives:

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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

Authorized Signature: 

Title: Technical Director/Representative

Date: 09/12/07

# ORGANICS

# VOLATILES

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

**Lab ID:** L0712700-01  
**Client ID:** SP-J1-20070904-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 1,8260B  
**Analytical Date:** 09/11/07 13:19  
**Analyst:** SE

**Date Collected:** 09/04/07 11:00  
**Date Received:** 09/04/07  
**Field Prep:** Not Specified

**TCLP Extraction Date:** 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	ND		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	99		70-130

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

Lab ID: L0712700-02  
 Client ID: SP-J2-20070904-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil  
 Analytical Method: 1,8260B  
 Analytical Date: 09/11/07 13:55  
 Analyst: SE

Date Collected: 09/04/07 11:05  
 Date Received: 09/04/07  
 Field Prep: Not Specified

TCLP Extraction Date: 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	ND		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	100		70-130

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

Lab ID: L0712700-03  
 Client ID: SP-J3-20070904-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil  
 Analytical Method: 1,8260B  
 Analytical Date: 09/11/07 14:31  
 Analyst: SE

Date Collected: 09/04/07 11:10  
 Date Received: 09/04/07  
 Field Prep: Not Specified

TCLP Extraction Date: 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	60		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	102		70-130



**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

**Lab ID:** L0712700-04  
**Client ID:** SP-J4-20070904-01  
**Sample Location:** RAYTHEON WAYLAND  
**Matrix:** Soil  
**Anaytical Method:** 1,8260B  
**Analytical Date:** 09/11/07 15:06  
**Analyst:** SE

**Date Collected:** 09/04/07 11:15  
**Date Received:** 09/04/07  
**Field Prep:** Not Specified

**TCLP Extraction Date:** 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	ND		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	102		70-130

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

Lab ID: L0712700-05  
 Client ID: SP-J5-20070904-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil  
 Analytical Method: 1,8260B  
 Analytical Date: 09/11/07 15:43  
 Analyst: SE

Date Collected: 09/04/07 11:20  
 Date Received: 09/04/07  
 Field Prep: Not Specified

TCLP Extraction Date: 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	ND		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	101		70-130

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**SAMPLE RESULTS**

Lab ID: L0712700-06  
 Client ID: SP-J6-20070904-01  
 Sample Location: RAYTHEON WAYLAND  
 Matrix: Soil  
 Analytical Method: 1,8260B  
 Analytical Date: 09/11/07 16:18  
 Analyst: SE

Date Collected: 09/04/07 11:25  
 Date Received: 09/04/07  
 Field Prep: Not Specified

TCLP Extraction Date: 09/10/07 16:46

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>TCLP Volatile Organics</b>					
Chloroform	ND		ug/l	7.5	10
Carbon tetrachloride	ND		ug/l	5.0	10
Tetrachloroethene	ND		ug/l	5.0	10
Chlorobenzene	ND		ug/l	5.0	10
1,2-Dichloroethane	ND		ug/l	5.0	10
Benzene	ND		ug/l	5.0	10
Vinyl chloride	ND		ug/l	10	10
1,1-Dichloroethene	ND		ug/l	5.0	10
Trichloroethene	ND		ug/l	5.0	10
1,4-Dichlorobenzene	ND		ug/l	25	10
2-Butanone	ND		ug/l	50	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	98		70-130

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260B  
Analytical Date: 09/11/07 12:43  
Analyst: SE  
TCLP Extraction Date:

Parameter	Result	Qualifier	Units	RDL
TCLP Volatile Organics for sample(s): 01-06 Batch: WG290025-10				
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
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	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	100		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
TCLP Volatile Organics Associated sample(s): 01-06 Batch: WG290025-9					
Chloroform	110	-	70-130	-	20
Carbon tetrachloride	107	-	70-130	-	20
Tetrachloroethene	114	-	70-130	-	20
Chlorobenzene	118	-	75-130	-	20
1,2-Dichloroethane	124	-	70-130	-	20
Benzene	114	-	76-127	-	20
Vinyl chloride	91	-	70-130	-	20
1,1-Dichloroethene	97	-	61-145	-	20
Trichloroethene	112	-	71-120	-	20
1,4-Dichlorobenzene	117	-	70-130	-	20
2-Butanone	127	-	70-130	-	20

Surrogate	LCS %Recovery Qualifier	LCSD %Recovery Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

**Matrix Spike Analysis  
Batch Quality Control**

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

Parameter	Native Sample	MS Added	MS Found	MS		MSD		Recovery Limits	RPD	RPD Limits
				%Recovery	MSD Found	%Recovery				
TCLP Volatile Organics Associated sample(s): 01-06 QC Batch ID: WG290025-1 WG290025-2 QC Sample: L0710794-06 Client ID: MS Sample										
Chloroform	ND	100	100	102	97	97	70-130	5	20	
Carbon tetrachloride	ND	100	100	101	94	94	70-130	7	20	
Tetrachloroethene	ND	100	93	93	89	89	70-130	4	20	
Chlorobenzene	ND	100	99	99	95	96	75-130	3	20	
1,2-Dichloroethane	ND	100	110	109	99	99	70-130	10	20	
Benzene	ND	100	92	92	87	87	76-127	6	20	
Vinyl chloride	ND	100	86	86	82	82	70-130	5	20	
1,1-Dichloroethene	ND	100	100	102	91	91	61-145	11	20	
Trichloroethene	ND	100	94	94	86	86	71-120	9	20	
1,4-Dichlorobenzene	ND	100	97	97	100	101	70-130	4	20	
2-Butanone	ND	100	120	124	110	112	70-130	10	20	

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	108		106		70-130
4-Bromofluorobenzene	104		104		70-130
Dibromofluoromethane	109		102		70-130
Toluene-d8	100		94		70-130

**Project Name:** NA SOIL EXCAVATION**Lab Number:** L0712700**Project Number:** 0051545**Report Date:** 09/12/07**Sample Receipt and Container Information**

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
L0712700-01A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA
L0712700-02A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA
L0712700-03A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA
L0712700-04A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA
L0712700-05A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA
L0712700-06A	Vial Large unpreserved	A	N/A	2.4C	Y	Absent	TCLP-VOA

**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

## GLOSSARY

### Acronyms

- EPA - Environmental Protection Agency.  
LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.  
LCSD- Laboratory Control Sample Duplicate: Refer to LCS.  
MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.  
MSD - Matrix Spike Sample Duplicate: Refer to MS.  
NA - Not Applicable.  
NI - Not Ignitable.  
NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.  
ND - Not detected at the reported detection limit for the sample.  
RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.  
RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

- A - Spectra identified as "Aldol Condensation Product".  
B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.  
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.  
J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

- H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

Report Format: Not Specified





**Project Name:** NA SOIL EXCAVATION  
**Project Number:** 0051545

**Lab Number:** L0712700  
**Report Date:** 09/12/07

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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



