

June 4, 2007

Mr. Frank Wershing  
390 Pine Street  
Pawtucket, Rhode Island 02903

RECEIVED  
D.E.M. / O.W.M.

2007 JUN -6 P 2:49

**SUBJECT: Surfacial Soil Sampling Summary**  
390-392 Pine Street  
Pawtucket, Rhode Island 02903

Dear Mr. Wershing:

On April 18, 2007, Tallman Enterprises, Inc engaged Resource Controls to perform environmental site assessment activities which included the collection and laboratory analysis of four (4) near-surface soil samples on the property located at 390-392 Pine Street (the Subject Property). The sampling effort was conducted in accordance with the Letter of Responsibility from the Rhode Island Department of Environmental Management (RIDEM) dated April 4, 2007 regarding Case # 2007-019.


On April 24, 2007, Resource Controls personnel collected four soil samples from the Subject Property from locations B-2, B-3, B-4, and B-5 which are depicted in Figure 1 (Site Plan). Each sample was collected from 1 to 2 feet below grade using a hand auger which was cleaned before and after each use. The soil samples were collected in clean, appropriately preserved containers provided by the laboratory. All soil samples were labeled in the field, properly preserved and transported to the laboratory under standard chain-of-custody protocol. Each sample was submitted for laboratory analysis of arsenic and semi-volatile organic compounds (SVOCs); additionally, the sample from location B-3 was also submitted for total petroleum hydrocarbons (TPH), RCRA 8 metals, and volatile organic compounds (VOCs).

Laboratory analytical results reported concentrations of SVOCs above the RIDEM Industrial / Commercial Direct Exposure Criteria in the soil samples B-2, B-3, and B-4. Arsenic was detected in sample B-4 at concentrations above the RIDEM Industrial/Commercial Direct Exposure Criteria. Concentrations of TPH, all analyzed VOCs, and all other analyzed metals were reported as non-detectable by the laboratory analytical method for sample location B-3. Analytical results for soil samples collected during the subsurface investigation are summarized in Table 1, and copies of laboratory reports are included in Appendix A.

The concentrations of contaminants are not considered non-jurisdictional by the RIDEM and therefore additional assessment will be required to determine the source and extent of contamination.

Very truly yours,

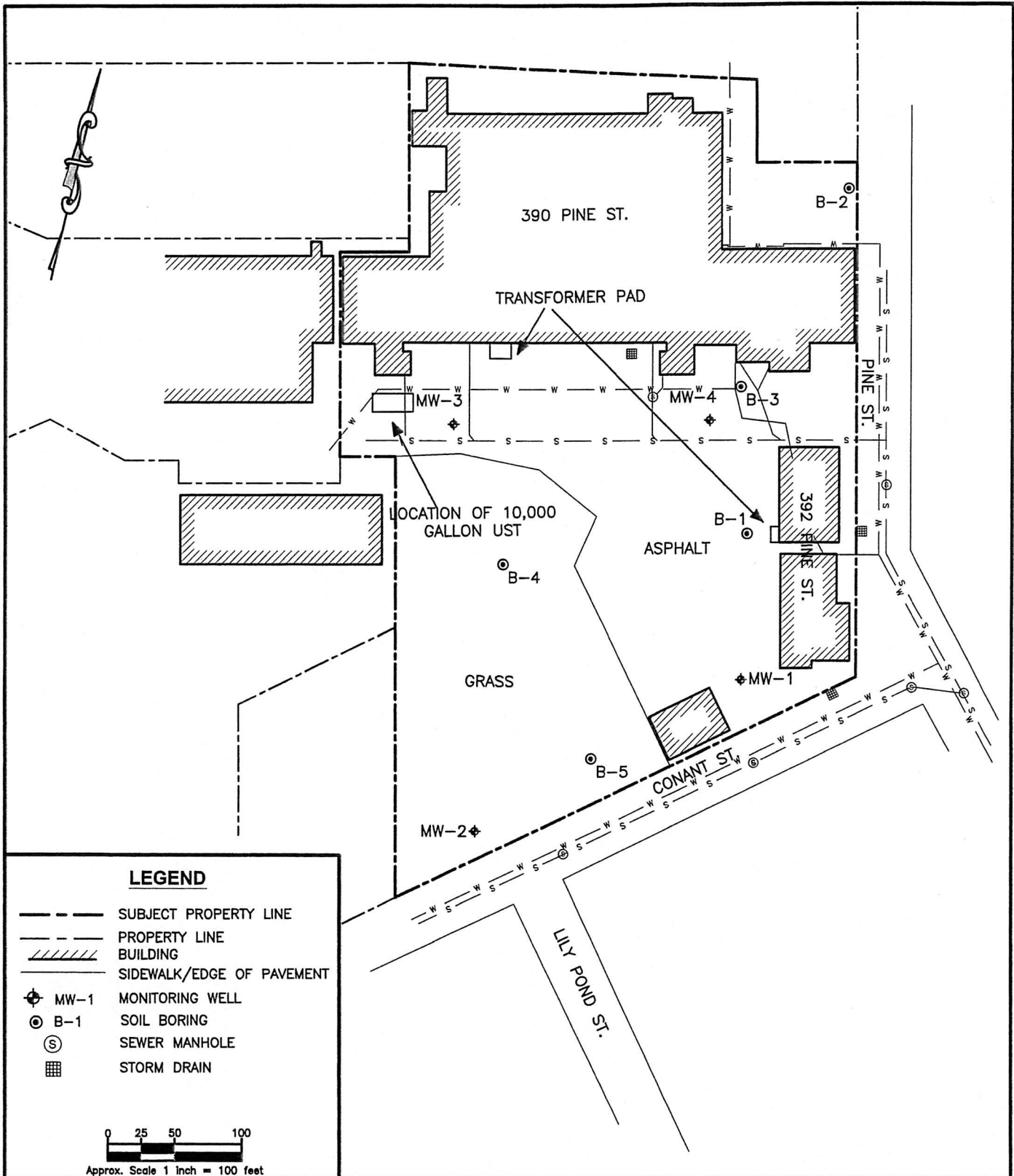
**RESOURCE CONTROL ASSOCIATES, INC.**

  
Mark J. House  
Vice President and Principal Scientist

Enclosures: Figure 1 – Site Plan  
Table 1 – Summary of Soil Analytical Results  
Appendix A – Laboratory Analytical Results

P:\600016705A Tallman Ent, Pine Street\Documents\surface soil sampling summary\A6705A\_ssoil data\_Text.doc (MH:lap)

**Environmental Consulting · Engineering · Construction Management**



## SITE PLAN

390-392 PINE ST  
PAWTUCKET, RI

DRAWN BY

DFW

PROJECT

A6705A

PRINT DATE

05/23/2007

FIGURE

1



Tallman Enterprises  
390 Pine Street  
Pawtucket, Rhode Island

mg/kg = milligrams per kilogram.  
 -- = Not analyzed.  
 ND = Not detected above laboratory reporting limit.  
 NS = No standard promulgated.  
**Bold** concentrations exceed RIDEM Industrial/Commercial and/or Residential Direct Exposure Criteria

# GROUNDWATER ANALYTICAL

RECEIVED  
D.E.M. / O.W.M.

2007 JUN -6 P 2: 50

Groundwater Analytical, Inc.  
P.O. Box 1200  
228 Main Street  
Buzzards Bay, MA 02532

Telephone (508) 759-4441  
FAX (508) 759-4475  
www.groundwateranalytical.com

May 10, 2007

Mr. Mark House  
Resource Control Associates  
474 Broadway  
Pawtucket, RI 02860

## LABORATORY REPORT

Project: Tallman/A6705A  
Lab ID: 106408  
Received: 04-26-07

Dear Mark:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,



Jonathan R. Sanford  
President

JRS/jkb  
Enclosures

## Sample Receipt Report

Project: Tallman/A6705A  
Client: Resource Control Associates  
Lab ID: 106408

Delivery: GWA Courier  
Airbill: n/a  
Lab Receipt: 04-26-07

Temperature: 2.3°C  
Chain of Custody: Present  
Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes
106408-1	B-3 1.0-1.5		Soil	4/24/07 16:00	EPA 8260B Volatile Organics with Oxygenates				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C832363	40 mL VOA Vial	Proline	BX24256	Methanol	R-5131L	12-15-06	n/a		
C894075	40 mL VOA Vial	Proline	BX24646	NaHSO4	R-4871A	01-16-07	n/a		
C191973	40 mL VOA Vial	Proline	BX24646	NaHSO4	R-4871A	01-16-07	n/a		
C191946	40 mL VOA Vial	Proline	BX24646	NaHSO4	R-4871A	01-16-07	n/a		

Lab ID	Field ID		Matrix	Sampled	Method			Notes
106408-2	B-3 1.0-1.5		Soil	4/24/07 16:00	EPA 6010B/7471A 8 RCRA Metals EPA 8270C Semivolatile Organics TPH by GC EPA 8015B Mod			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C924229	250 mL Glass	Proline	BX26139	None	n/a	n/a	03-30-07	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
106408-3	B-2 1.0-1.5		Soil	4/24/07 14:50	EPA 6010B As EPA 8270C Semivolatile Organics			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C912637	120 mL Amber Glass	Proline	BX25289	None	n/a	n/a	04-17-07	

Lab ID	Field ID		Matrix	Sampled	Method				Notes
106408-4	B-5 1.0-1.5		Soil	4/24/07 15:00	EPA 6010B As EPA 8270C Semivolatile Organics				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C912638	120 mL Amber Glass	Proline	BX25289	None	n/a	n/a	04-17-07		

Lab ID	Field ID		Matrix	Sampled	Method			Notes
106408-5	B-4 1.0-1.5		Soil	4/24/07 15:30	EPA 6010B As EPA 8270C Semivolatile Organics			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C912641	120 mL Amber Glass	Proline	BX25289	None	n/a	n/a	04-17-07	

## EPA Method 8260B Volatile Organics by GC/MS

Field ID: B-3 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-1  
Sampled: 04-24-07 16:00  
Received: 04-26-07 12:25  
Analyzed: 05-08-07 13:55  
Analyst: LMG

Matrix: Soil  
Container: 40 mL VOA Vial  
Preservation: NaHSO<sub>4</sub> / Cool  
  
QC Batch ID: VM8-0719-S  
Instrument ID: MS-8 Agilent 6890  
Sample Weight: 5.1 g  
% Solids: 95  
Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/Kg	10
74-87-3	Chloromethane	BRL		ug/Kg	10
75-01-4	Vinyl Chloride	BRL		ug/Kg	10
74-83-9	Bromomethane	BRL		ug/Kg	10
75-00-3	Chloroethane	BRL		ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL		ug/Kg	10
60-29-7	Diethyl Ether	BRL		ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL		ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/Kg	51
67-64-1	Acetone	BRL		ug/Kg	210
75-15-0	Carbon Disulfide	BRL		ug/Kg	51
75-09-2	Methylene Chloride	BRL		ug/Kg	51
156-60-5	<i>trans</i> - 1,2-Dichloroethene	BRL		ug/Kg	5
1634-04-4	Methyl <i>tert</i> - butyl Ether (MTBE)	BRL		ug/Kg	5
75-34-3	1,1-Dichloroethane	BRL		ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL		ug/Kg	5
156-59-2	<i>cis</i> - 1,2-Dichloroethene	BRL		ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL		ug/Kg	51
74-97-5	Bromochloromethane	BRL		ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/Kg	51
67-66-3	Chloroform	BRL		ug/Kg	5
71-55-6	1,1,1-Trichloroethane	BRL		ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL		ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL		ug/Kg	5
71-43-2	Benzene	BRL		ug/Kg	5
107-06-2	1,2-Dichloroethane	BRL		ug/Kg	5
79-01-6	Trichloroethene	BRL		ug/Kg	5
78-87-5	1,2-Dichloropropane	BRL		ug/Kg	5
74-95-3	Dibromomethane	BRL		ug/Kg	5
75-27-4	Bromodichloromethane	BRL		ug/Kg	5
123-91-1	1,4-Dioxane	BRL		ug/Kg	5100
10061-01-5	<i>cis</i> - 1,3-Dichloropropene	BRL		ug/Kg	5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/Kg	51
108-88-3	Toluene	BRL		ug/Kg	5
10061-02-6	<i>trans</i> - 1,3-Dichloropropene	BRL		ug/Kg	5
79-00-5	1,1,2-Trichloroethane	BRL		ug/Kg	5
127-18-4	Tetrachloroethene	BRL		ug/Kg	5
142-28-9	1,3-Dichloropropane	BRL		ug/Kg	5
591-78-6	2-Hexanone	BRL		ug/Kg	51
124-48-1	Dibromochloromethane	BRL		ug/Kg	5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/Kg	5
108-90-7	Chlorobenzene	BRL		ug/Kg	5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/Kg	5
100-41-4	Ethylbenzene	BRL		ug/Kg	5
108-38-3/106-42-3	<i>meta</i> - Xylene and <i>para</i> - Xylene	BRL		ug/Kg	5
95-47-6	<i>ortho</i> - Xylene	BRL		ug/Kg	5

## EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: B-3 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-1  
Sampled: 04-24-07 16:00  
Received: 04-26-07 12:25  
Analyzed: 05-08-07 13:55  
Analyst: LMG

Matrix: Soil  
Container: 40 mL VOA Vial  
Preservation: NaHSO4 / Cool  
  
QC Batch ID: VM8-0719-S  
Instrument ID: MS-8 Agilent 6890  
Sample Weight: 5.1 g  
% Solids: 95  
Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/Kg	5
75-25-2	Bromoform	BRL		ug/Kg	5
98-82-8	Isopropylbenzene	BRL		ug/Kg	5
108-86-1	Bromobenzene	BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane	BRL		ug/Kg	5
103-65-1	n-Propylbenzene	BRL		ug/Kg	5
95-49-8	2-Chlorotoluene	BRL		ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/Kg	5
106-43-4	4-Chlorotoluene	BRL		ug/Kg	5
98-06-6	tert-Butylbenzene	BRL		ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/Kg	5
135-98-8	sec-Butylbenzene	BRL		ug/Kg	5
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	5
99-87-6	4-Isopropyltoluene	BRL		ug/Kg	5
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	5
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	5
104-51-8	n-Butylbenzene	BRL		ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	5
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	5
91-20-3	Naphthalene	BRL		ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/Kg	5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/Kg	210
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/Kg	5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/Kg	5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/Kg	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	50	47	94 %	70 - 130 %
1,2-Dichloroethane-d <sub>4</sub>	50	38	75 %	70 - 130 %
Toluene-d <sub>8</sub>	50	44	87 %	70 - 130 %
4-Bromofluorobenzene	50	45	90 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Sample preparation performed by EPA Method 5035A. Results are reported on a dry weight basis.

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

## EPA Method 8270C Semivolatile Organics by GC/MS

Field ID: B-3 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-02  
Sampled: 04-24-07 16:00  
Received: 04-26-07 12:25  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 19:47  
Analyst: MJB

Matrix: Soil  
Container: 250 mL Glass  
Preservation: Cool  
  
QC Batch ID: SV-1957-P  
Instrument ID: MS-12 Agilent 6890  
Sample Weight: 15 g  
Final Volume: 1 mL  
Percent Solids: 95  
Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/Kg	340
110-86-1	Pyridine	BRL		ug/Kg	340
108-95-2	Phenol	BRL		ug/Kg	340
62-53-3	Aniline	BRL		ug/Kg	340
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/Kg	340
95-57-8	2-Chlorophenol	BRL		ug/Kg	340
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	340
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	340
100-51-6	Benzyl Alcohol	BRL		ug/Kg	340
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	340
95-48-7	2-Methylphenol	BRL		ug/Kg	340
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/Kg	340
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/Kg	340
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/Kg	340
98-86-2	Acetophenone	BRL		ug/Kg	340
67-72-1	Hexachloroethane	BRL		ug/Kg	340
98-95-3	Nitrobenzene	BRL		ug/Kg	340
78-59-1	Isophorone	BRL		ug/Kg	340
88-75-5	2-Nitrophenol	BRL		ug/Kg	340
105-67-9	2,4-Dimethylphenol	BRL		ug/Kg	340
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/Kg	340
120-83-2	2,4-Dichlorophenol	BRL		ug/Kg	340
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	340
91-20-3	Naphthalene	BRL		ug/Kg	340
106-47-8	4-Chloroaniline	BRL		ug/Kg	340
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	340
59-50-7	4-Chloro-3-methylphenol	BRL		ug/Kg	340
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	340
77-47-4	Hexachlorocyclopentadiene	BRL		ug/Kg	340
88-06-2	2,4,6-Trichlorophenol	BRL		ug/Kg	340
95-95-4	2,4,5-Trichlorophenol	BRL		ug/Kg	340
91-58-7	2-Chloronaphthalene	BRL		ug/Kg	340
88-74-4	2-Nitroaniline	BRL		ug/Kg	340
100-25-4	1,4-Dinitrobenzene	BRL		ug/Kg	340
131-11-3	Dimethyl phthalate	BRL		ug/Kg	340
99-65-0	1,3-Dinitrobenzene	BRL		ug/Kg	340
208-96-8	Acenaphthylene	BRL		ug/Kg	340
606-20-2	2,6-Dinitrotoluene	BRL		ug/Kg	340
528-29-0	1,2-Dinitrobenzene	BRL		ug/Kg	340
99-09-2	3-Nitroaniline	BRL		ug/Kg	340
83-32-9	Acenaphthene	BRL		ug/Kg	340
51-28-5	2,4-Dinitrophenol	BRL		ug/Kg	340
100-02-7	4-Nitrophenol	BRL		ug/Kg	340
132-64-9	Dibenzofuran	BRL		ug/Kg	340
121-14-2	2,4-Dinitrotoluene	BRL		ug/Kg	340

## EPA Method 8270C (Continued) Semivolatile Organics by GC/MS

Field ID: **B-3 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**  
  
Laboratory ID: **106408-02**  
Sampled: **04-24-07 16:00**  
Received: **04-26-07 12:25**  
Extracted: **04-30-07 14:00**  
Analyzed: **05-08-07 19:47**  
Analyst: **MJB**

Matrix: **Soil**  
Container: **250 mL Glass**  
Preservation: **Cool**  
  
QC Batch ID: **SV-1957-P**  
Instrument ID: **MS-12 Agilent 6890**  
Sample Weight: **15 g**  
Final Volume: **1 mL**  
Dilution Factor: **1**

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/Kg	340
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/Kg	340
86-73-7	Fluorene	BRL		ug/Kg	340
100-01-6	4-Nitroaniline	BRL		ug/Kg	340
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/Kg	340
86-30-6	N-Nitrosodiphenylamine <sup>†</sup>	BRL		ug/Kg	340
122-66-7	1,2-Diphenylhydrazine <sup>◊</sup>	BRL		ug/Kg	340
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/Kg	340
118-74-1	Hexachlorobenzene	BRL		ug/Kg	340
87-86-5	Pentachlorophenol	BRL		ug/Kg	340
85-01-8	Phenanthrene	2,800		ug/Kg	340
120-12-7	Anthracene	640		ug/Kg	340
86-74-8	Carbazole	BRL		ug/Kg	340
84-74-2	Di-n-butyl phthalate	BRL		ug/Kg	340
206-44-0	Fluoranthene	6,000		ug/Kg	340
129-00-0	Pyrene	5,400		ug/Kg	340
85-68-7	Butyl benzyl phthalate	BRL		ug/Kg	340
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/Kg	340
56-55-3	Benzo[a]anthracene	3,200		ug/Kg	340
218-01-9	Chrysene	2,800		ug/Kg	340
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/Kg	340
117-84-0	Di-n-octyl phthalate	BRL		ug/Kg	340
205-99-2	Benzo[b]fluoranthene	4,000		ug/Kg	340
207-08-9	Benzo[k]fluoranthene	1,400		ug/Kg	340
50-32-8	Benzo[a]pyrene	3,300		ug/Kg	340
193-39-5	Indeno[1,2,3-c,d]pyrene	2,300		ug/Kg	340
53-70-3	Dibenzo[a,h]anthracene	580		ug/Kg	340
191-24-2	Benzo[g,h,i]perylene	2,000		ug/Kg	340

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	14,000	11,000	77 %	30 - 130 %
Phenol-d5	14,000	11,000	77 %	30 - 130 %
Nitrobenzene-d5	7,000	5,400	77 %	30 - 130 %
2-Fluorobiphenyl	7,000	5,500	78 %	30 - 130 %
2,4,6-Tribromophenol	14,000	10,000	75 %	30 - 130 %
Terphenyl-d14	7,000	6,100	87 %	30 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Results are reported on a dry weight basis.

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

\* Analyzed as 4-Methylphenol.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

◊ Analyzed as Azobenzene.

## EPA Method 8270C Semivolatile Organics by GC/MS

Field ID: B-2 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-03  
Sampled: 04-24-07 14:50  
Received: 04-26-07 12:25  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 20:31  
Analyst: MJB

Matrix: Soil  
Container: 120 mL Amber Glass  
Preservation: Cool  
  
QC Batch ID: SV-1957-P  
Instrument ID: MS-12 Agilent 6890  
Sample Weight: 15 g  
Final Volume: 1 mL  
Percent Solids: 91  
Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/Kg	360
110-86-1	Pyridine	BRL		ug/Kg	360
108-95-2	Phenol	BRL		ug/Kg	360
62-53-3	Aniline	BRL		ug/Kg	360
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/Kg	360
95-57-8	2-Chlorophenol	BRL		ug/Kg	360
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	360
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	360
100-51-6	Benzyl Alcohol	BRL		ug/Kg	360
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	360
95-48-7	2-Methylphenol	BRL		ug/Kg	360
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/Kg	360
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/Kg	360
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/Kg	360
98-86-2	Acetophenone	BRL		ug/Kg	360
67-72-1	Hexachloroethane	BRL		ug/Kg	360
98-95-3	Nitrobenzene	BRL		ug/Kg	360
78-59-1	Isophorone	BRL		ug/Kg	360
88-75-5	2-Nitrophenol	BRL		ug/Kg	360
105-67-9	2,4-Dimethylphenol	BRL		ug/Kg	360
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/Kg	360
120-83-2	2,4-Dichlorophenol	BRL		ug/Kg	360
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	360
91-20-3	Naphthalene	BRL		ug/Kg	360
106-47-8	4-Chloroaniline	BRL		ug/Kg	360
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	360
59-50-7	4-Chloro-3-methylphenol	BRL		ug/Kg	360
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	360
77-47-4	Hexachlorocyclopentadiene	BRL		ug/Kg	360
88-06-2	2,4,6-Trichlorophenol	BRL		ug/Kg	360
95-95-4	2,4,5-Trichlorophenol	BRL		ug/Kg	360
91-58-7	2-Chloronaphthalene	BRL		ug/Kg	360
88-74-4	2-Nitroaniline	BRL		ug/Kg	360
100-25-4	1,4-Dinitrobenzene	BRL		ug/Kg	360
131-11-3	Dimethyl phthalate	BRL		ug/Kg	360
99-65-0	1,3-Dinitrobenzene	BRL		ug/Kg	360
208-96-8	Acenaphthylene	BRL		ug/Kg	360
606-20-2	2,6-Dinitrotoluene	BRL		ug/Kg	360
528-29-0	1,2-Dinitrobenzene	BRL		ug/Kg	360
99-09-2	3-Nitroaniline	BRL		ug/Kg	360
83-32-9	Acenaphthene	BRL		ug/Kg	360
51-28-5	2,4-Dinitrophenol	BRL		ug/Kg	360
100-02-7	4-Nitrophenol	BRL		ug/Kg	360
132-64-9	Dibenzofuran	BRL		ug/Kg	360
121-14-2	2,4-Dinitrotoluene	BRL		ug/Kg	360

**EPA Method 8270C (Continued)  
Semivolatile Organics by GC/MS**

Field ID: **B-2 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**  
  
Laboratory ID: **106408-03**  
Sampled: **04-24-07 14:50**  
Received: **04-26-07 12:25**  
Extracted: **04-30-07 14:00**  
Analyzed: **05-08-07 20:31**  
Analyst: **MJB**

Matrix: **Soil**  
Container: **120 mL Amber Glass**  
Preservation: **Cool**  
  
QC Batch ID: **SV-1957-P**  
Instrument ID: **MS-12 Agilent 6890**  
Sample Weight: **15 g**  
Final Volume: **1 mL**  
Dilution Factor: **1**

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/Kg	360
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/Kg	360
86-73-7	Fluorene	BRL		ug/Kg	360
100-01-6	4-Nitroaniline	BRL		ug/Kg	360
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/Kg	360
86-30-6	N-Nitrosodiphenylamine <sup>†</sup>	BRL		ug/Kg	360
122-66-7	1,2-Diphenylhydrazine <sup>◊</sup>	BRL		ug/Kg	360
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/Kg	360
118-74-1	Hexachlorobenzene	BRL		ug/Kg	360
87-86-5	Pentachlorophenol	BRL		ug/Kg	360
85-01-8	Phenanthrene	3,200		ug/Kg	360
120-12-7	Anthracene	700		ug/Kg	360
86-74-8	Carbazole	BRL		ug/Kg	360
84-74-2	Di-n-butyl phthalate	BRL		ug/Kg	360
206-44-0	Fluoranthene	6,500		ug/Kg	360
129-00-0	Pyrene	5,800		ug/Kg	360
85-68-7	Butyl benzyl phthalate	BRL		ug/Kg	360
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/Kg	360
56-55-3	Benzo[a]anthracene	3,900		ug/Kg	360
218-01-9	Chrysene	3,600		ug/Kg	360
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/Kg	360
117-84-0	Di-n-octyl phthalate	BRL		ug/Kg	360
205-99-2	Benzo[b]fluoranthene	4,600		ug/Kg	360
207-08-9	Benzo[k]fluoranthene	1,600		ug/Kg	360
50-32-8	Benzo[a]pyrene	3,700		ug/Kg	360
193-39-5	Indeno[1,2,3-c,d]pyrene	2,300		ug/Kg	360
53-70-3	Dibenzo[a,h]anthracene	680		ug/Kg	360
191-24-2	Benzo[g,h,i]perylene	1,900		ug/Kg	360

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	14,000	8,600	59 %	30 - 130 %
Phenol-d5	14,000	8,800	61 %	30 - 130 %
Nitrobenzene-d5	7,200	4,600	63 %	30 - 130 %
2-Fluorobiphenyl	7,200	4,500	62 %	30 - 130 %
2,4,6-Tribromophenol	14,000	7,900	54 %	30 - 130 %
Terphenyl-d14	7,200	4,900	68 %	30 - 130 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Results are reported on a dry weight basis.

**Report Notations:** BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.  
\* Analyzed as 4-Methylphenol.  
† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.  
◊ Analyzed as Azobenzene.

## EPA Method 8270C Semivolatile Organics by GC/MS

Field ID: B-5 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-04  
Sampled: 04-24-07 15:00  
Received: 04-26-07 12:25  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 16:52  
Analyst: MJB

Matrix: Soil  
Container: 120 mL Amber Glass  
Preservation: Cool  
  
QC Batch ID: SV-1957-P  
Instrument ID: MS-12 Agilent 6890  
Sample Weight: 15 g  
Final Volume: 1 mL  
Percent Solids: 91  
Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/Kg	360
110-86-1	Pyridine	BRL		ug/Kg	360
108-95-2	Phenol	BRL		ug/Kg	360
62-53-3	Aniline	BRL		ug/Kg	360
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/Kg	360
95-57-8	2-Chlorophenol	BRL		ug/Kg	360
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	360
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	360
100-51-6	Benzyl Alcohol	BRL		ug/Kg	360
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	360
95-48-7	2-Methylphenol	BRL		ug/Kg	360
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/Kg	360
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/Kg	360
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/Kg	360
98-86-2	Acetophenone	BRL		ug/Kg	360
67-72-1	Hexachloroethane	BRL		ug/Kg	360
98-95-3	Nitrobenzene	BRL		ug/Kg	360
78-59-1	Isophorone	BRL		ug/Kg	360
88-75-5	2-Nitrophenol	BRL		ug/Kg	360
105-67-9	2,4-Dimethylphenol	BRL		ug/Kg	360
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/Kg	360
120-83-2	2,4-Dichlorophenol	BRL		ug/Kg	360
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	360
91-20-3	Naphthalene	BRL		ug/Kg	360
106-47-8	4-Chloroaniline	BRL		ug/Kg	360
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	360
59-50-7	4-Chloro-3-methylphenol	BRL		ug/Kg	360
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	360
77-47-4	Hexachlorocyclopentadiene	BRL		ug/Kg	360
88-06-2	2,4,6-Trichlorophenol	BRL		ug/Kg	360
95-95-4	2,4,5-Trichlorophenol	BRL		ug/Kg	360
91-58-7	2-Chloronaphthalene	BRL		ug/Kg	360
88-74-4	2-Nitroaniline	BRL		ug/Kg	360
100-25-4	1,4-Dinitrobenzene	BRL		ug/Kg	360
131-11-3	Dimethyl phthalate	BRL		ug/Kg	360
99-65-0	1,3-Dinitrobenzene	BRL		ug/Kg	360
208-96-8	Acenaphthylene	BRL		ug/Kg	360
606-20-2	2,6-Dinitrotoluene	BRL		ug/Kg	360
528-29-0	1,2-Dinitrobenzene	BRL		ug/Kg	360
99-09-2	3-Nitroaniline	BRL		ug/Kg	360
83-32-9	Acenaphthene	BRL		ug/Kg	360
51-28-5	2,4-Dinitrophenol	BRL		ug/Kg	360
100-02-7	4-Nitrophenol	BRL		ug/Kg	360
132-64-9	Dibenzofuran	BRL		ug/Kg	360
121-14-2	2,4-Dinitrotoluene	BRL		ug/Kg	360

## EPA Method 8270C (Continued) Semivolatile Organics by GC/MS

Field ID: **B-5 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**  
  
Laboratory ID: **106408-04**  
Sampled: **04-24-07 15:00**  
Received: **04-26-07 12:25**  
Extracted: **04-30-07 14:00**  
Analyzed: **05-08-07 16:52**  
Analyst: **MJB**

Matrix: **Soil**  
Container: **120 mL Amber Glass**  
Preservation: **Cool**  
  
QC Batch ID: **SV-1957-P**  
Instrument ID: **MS-12 Agilent 6890**  
Sample Weight: **15 g**  
Final Volume: **1 mL**  
Dilution Factor: **1**

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/Kg	360
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/Kg	360
86-73-7	Fluorene	BRL		ug/Kg	360
100-01-6	4-Nitroaniline	BRL		ug/Kg	360
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/Kg	360
86-30-6	N-Nitrosodiphenylamine <sup>†</sup>	BRL		ug/Kg	360
122-66-7	1,2-Diphenylhydrazine <sup>‡</sup>	BRL		ug/Kg	360
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/Kg	360
118-74-1	Hexachlorobenzene	BRL		ug/Kg	360
87-86-5	Pentachlorophenol	BRL		ug/Kg	360
85-01-8	Phenanthrene	BRL		ug/Kg	360
120-12-7	Anthracene	BRL		ug/Kg	360
86-74-8	Carbazole	BRL		ug/Kg	360
84-74-2	Di-n-butyl phthalate	BRL		ug/Kg	360
206-44-0	Fluoranthene	BRL		ug/Kg	360
129-00-0	Pyrene	BRL		ug/Kg	360
85-68-7	Butyl benzyl phthalate	BRL		ug/Kg	360
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/Kg	360
56-55-3	Benzo[a]anthracene	BRL		ug/Kg	360
218-01-9	Chrysene	BRL		ug/Kg	360
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/Kg	360
117-84-0	Di-n-octyl phthalate	BRL		ug/Kg	360
205-99-2	Benzo[b]fluoranthene	BRL		ug/Kg	360
207-08-9	Benzo[k]fluoranthene	BRL		ug/Kg	360
50-32-8	Benzo[a]pyrene	BRL		ug/Kg	360
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL		ug/Kg	360
53-70-3	Dibenzo[a,h]anthracene	BRL		ug/Kg	360
191-24-2	Benzo[g,h,i]perylene	BRL		ug/Kg	360

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	15,000	11,000	73 %	30 - 130 %
Phenol-d5	15,000	11,000	73 %	30 - 130 %
Nitrobenzene-d5	7,300	5,200	72 %	30 - 130 %
2-Fluorobiphenyl	7,300	5,300	73 %	30 - 130 %
2,4,6-Tribromophenol	15,000	10,000	71 %	30 - 130 %
Terphenyl-d14	7,300	6,200	85 %	30 - 130 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Results are reported on a dry weight basis.

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

\* Analyzed as 4-Methylphenol.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

‡ Analyzed as Azobenzene.

## EPA Method 8270C Semivolatile Organics by GC/MS

Field ID: B-4 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-05  
Sampled: 04-24-07 15:30  
Received: 04-26-07 12:25  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 19:04  
Analyst: MJB

Matrix: Soil  
Container: 120 mL Amber Glass  
Preservation: Cool  
  
QC Batch ID: SV-1957-P  
Instrument ID: MS-12 Agilent 6890  
Sample Weight: 15 g  
Final Volume: 1 mL  
Percent Solids: 86  
Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/Kg	380
110-86-1	Pyridine	BRL		ug/Kg	380
108-95-2	Phenol	BRL		ug/Kg	380
62-53-3	Aniline	BRL		ug/Kg	380
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/Kg	380
95-57-8	2-Chlorophenol	BRL		ug/Kg	380
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	380
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	380
100-51-6	Benzyl Alcohol	BRL		ug/Kg	380
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	380
95-48-7	2-Methylphenol	BRL		ug/Kg	380
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/Kg	380
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/Kg	380
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/Kg	380
98-86-2	Acetophenone	BRL		ug/Kg	380
67-72-1	Hexachloroethane	BRL		ug/Kg	380
98-95-3	Nitrobenzene	BRL		ug/Kg	380
78-59-1	Isophorone	BRL		ug/Kg	380
88-75-5	2-Nitrophenol	BRL		ug/Kg	380
105-67-9	2,4-Dimethylphenol	BRL		ug/Kg	380
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/Kg	380
120-83-2	2,4-Dichlorophenol	BRL		ug/Kg	380
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	380
91-20-3	Naphthalene	BRL		ug/Kg	380
106-47-8	4-Chloroaniline	BRL		ug/Kg	380
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	380
59-50-7	4-Chloro-3-methylphenol	BRL		ug/Kg	380
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	380
77-47-4	Hexachlorocyclopentadiene	BRL		ug/Kg	380
88-06-2	2,4,6-Trichlorophenol	BRL		ug/Kg	380
95-95-4	2,4,5-Trichlorophenol	BRL		ug/Kg	380
91-58-7	2-Chloronaphthalene	BRL		ug/Kg	380
88-74-4	2-Nitroaniline	BRL		ug/Kg	380
100-25-4	1,4-Dinitrobenzene	BRL		ug/Kg	380
131-11-3	Dimethyl phthalate	BRL		ug/Kg	380
99-65-0	1,3-Dinitrobenzene	BRL		ug/Kg	380
208-96-8	Acenaphthylene	420		ug/Kg	380
606-20-2	2,6-Dinitrotoluene	BRL		ug/Kg	380
528-29-0	1,2-Dinitrobenzene	BRL		ug/Kg	380
99-09-2	3-Nitroaniline	BRL		ug/Kg	380
83-32-9	Acenaphthene	BRL		ug/Kg	380
51-28-5	2,4-Dinitrophenol	BRL		ug/Kg	380
100-02-7	4-Nitrophenol	BRL		ug/Kg	380
132-64-9	Dibenzofuran	BRL		ug/Kg	380
121-14-2	2,4-Dinitrotoluene	BRL		ug/Kg	380

## EPA Method 8270C (Continued) Semivolatile Organics by GC/MS

Field ID: B-4 1.0-1.5  
Project: Tallman/A6705A  
Client: Resource Control Associates  
  
Laboratory ID: 106408-05  
Sampled: 04-24-07 15:30  
Received: 04-26-07 12:25  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 19:04  
Analyst: MJB

Matrix: Soil  
Container: 120 mL Amber Glass  
Preservation: Cool  
  
QC Batch ID: SV-1957-P  
Instrument ID: MS-12 Agilent 6890  
Sample Weight: 15 g  
Final Volume: 1 mL  
Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/Kg	380
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/Kg	380
86-73-7	Fluorene	BRL		ug/Kg	380
100-01-6	4-Nitroaniline	BRL		ug/Kg	380
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/Kg	380
86-30-6	N-Nitrosodiphenylamine <sup>†</sup>	BRL		ug/Kg	380
122-66-7	1,2-Diphenylhydrazine <sup>◊</sup>	BRL		ug/Kg	380
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/Kg	380
118-74-1	Hexachlorobenzene	BRL		ug/Kg	380
87-86-5	Pentachlorophenol	BRL		ug/Kg	380
85-01-8	Phenanthrene	4,000		ug/Kg	380
120-12-7	Anthracene	690		ug/Kg	380
86-74-8	Carbazole	BRL		ug/Kg	380
84-74-2	Di-n-butyl phthalate	BRL		ug/Kg	380
206-44-0	Fluoranthene	6,600		ug/Kg	380
129-00-0	Pyrene	6,000		ug/Kg	380
85-68-7	Butyl benzyl phthalate	BRL		ug/Kg	380
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/Kg	380
56-55-3	Benzo[a]anthracene	3,200		ug/Kg	380
218-01-9	Chrysene	3,000		ug/Kg	380
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/Kg	380
117-84-0	Di-n-octyl phthalate	BRL		ug/Kg	380
205-99-2	Benzo[b]fluoranthene	4,200		ug/Kg	380
207-08-9	Benzo[k]fluoranthene	1,400		ug/Kg	380
50-32-8	Benzo[a]pyrene	3,100		ug/Kg	380
193-39-5	Indeno[1,2,3-c,d]pyrene	2,300		ug/Kg	380
53-70-3	Dibenzo[a,h]anthracene	590		ug/Kg	380
191-24-2	Benzo[g,h,i]perylene	2,100		ug/Kg	380

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	15,000	6,300	41 %	30 - 130 %
Phenol-d5	15,000	6,400	42 %	30 - 130 %
Nitrobenzene-d5	7,700	3,400	44 %	30 - 130 %
2-Fluorobiphenyl	7,700	3,300	42 %	30 - 130 %
2,4,6-Tribromophenol	15,000	6,500	42 %	30 - 130 %
Terphenyl-d14	7,700	3,500	46 %	30 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample extraction performed by EPA Method 3545. Results are reported on a dry weight basis.

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

\* Analyzed as 4-Methylphenol.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

◊ Analyzed as Azobenzene.

**EPA Method 8015B (Modified)  
Total Petroleum Hydrocarbons by GC/FID**

Field ID: **B-3 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**  
  
Laboratory ID: **106408-02**  
Sampled: **04-24-07 16:00**  
Received: **04-26-07 12:25**  
Extracted: **05-01-07 14:00**  
Analyzed: **05-10-07 15:15**  
Analyst: **CM**

Matrix: **Soil**  
Container: **250 mL Glass**  
Preservation: **Cool**  
  
QC Batch ID: **HF-2670-M**  
Instrument ID: **GC4 HP 5890**  
Sample Weight: **15 g**  
Final Volume: **1 mL**  
Dilution Factor: **1**  
% Solids: **95**

Analyte	Concentration	Notes	Units	Reporting Limit
Total Petroleum Hydrocarbons	<b>140</b>		mg/Kg	62

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
<i>ortho</i> -Terphenyl	2.8	2.2	<b>81 %</b>	30 - 130 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Method modified to quantify total petroleum hydrocarbons in the range n-C 9 through n-C 36. Results are quantified on the basis of a series of aromatic and aliphatic hydrocarbons, using 5-alpha-androstane as an internal standard.  
Sample extraction performed by EPA Method 3546. Results are reported on a dry weight basis.

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

## Trace Metals

Field ID: **B-3 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**

Matrix: **Soil**  
Container: **250 mL Glass**  
Preservation: **Cool**  
Percent Solids: **86**

Laboratory ID: **106408-2**  
Sampled: **04-24-07 16:00**  
Received: **04-26-07 12:25**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Weight	Instrument ID	Analyst
EPA 6010B <sup>1</sup>	MB-01165-S	EPA 3050B	04-30-07 13:30	0.492 g	ICP-1 PE 3000	MWR
EPA 7471A <sup>2</sup>	MP-2134-S	EPA 7471A	04-30-07 12:20	0.6 g	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic, Total		BRL	mg/Kg	3.5	1	04-30-07 18:32	EPA 6010B <sup>1</sup>
7440-39-3	Barium, Total		BRL	mg/Kg	24	1	04-30-07 18:31	EPA 6010B <sup>1</sup>
7440-43-9	Cadmium, Total		BRL	mg/Kg	0.59	1	04-30-07 18:32	EPA 6010B <sup>1</sup>
7440-47-3	Chromium, Total		BRL	mg/Kg	12	1	04-30-07 18:31	EPA 6010B <sup>1</sup>
7439-92-1	Lead, Total	<b>68</b>		mg/Kg	12	1	04-30-07 18:32	EPA 6010B <sup>1</sup>
7439-97-6	Mercury, Total	<b>0.11</b>		mg/Kg	0.019	1	04-30-07 19:52	EPA 7471A <sup>2</sup>
7782-49-2	Selenium, Total		BRL	mg/Kg	12	1	04-30-07 18:32	EPA 6010B <sup>1</sup>
7440-22-4	Silver, Total		BRL	mg/Kg	5.9	1	04-30-07 18:31	EPA 6010B <sup>1</sup>

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Results are reported on a dry weight basis.

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

## Trace Metals

Field ID: **B-2 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**

Matrix: **Soil**  
Container: **120 mL Glass**  
Preservation: **Cool**  
Percent Solids: **91**

Laboratory ID: **106408-3**  
Sampled: **04-24-07 14:50**  
Received: **04-26-07 12:25**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Weight</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B <sup>1</sup>	MB-01165-S	EPA 3050B	04-30-07 13:30	0.5 g	ICP-1 PE 3000	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic, Total	5.0		mg/Kg	3.3	1	04-30-07 18:35	EPA 6010B <sup>1</sup>

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Results are reported on a dry weight basis.

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

## Trace Metals

Field ID: **B-5 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**

Matrix: **Soil**  
Container: **120 mL Glass**  
Preservation: **Cool**  
Percent Solids: **91**

Laboratory ID: **106408-4**  
Sampled: **04-24-07 15:00**  
Received: **04-26-07 12:25**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Weight</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B <sup>1</sup>	MB-01165-S	EPA 3050B	04-30-07 13:30	0.507 g	ICP-1 PE 3000	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic, Total	BRL		mg/Kg	3.3	1	04-30-07 18:38	EPA 6010B <sup>1</sup>

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Results are reported on a dry weight basis.

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

## Trace Metals

Field ID: **B-4 1.0-1.5**  
Project: **Tallman/A6705A**  
Client: **Resource Control Associates**

Matrix: **Soil**  
Container: **120 mL Glass**  
Preservation: **Cool**  
Percent Solids: **86**

Laboratory ID: **106408-5**  
Sampled: **04-24-07 15:30**  
Received: **04-26-07 12:25**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Weight</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B <sup>1</sup>	MB-01165-S	EPA 3050B	04-30-07 13:30	0.515 g	ICP-1 PE 3000	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic, Total	41		mg/Kg	3.4	1	04-30-07 18:41	EPA 6010B <sup>1</sup>

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Results are reported on a dry weight basis.

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

### Project Narrative

Project: **Tallman/A6705A**  
Client: **Resource Control Associates**

Lab ID: **106408**  
Received: **04-26-07 12:25**

#### A. Documentation and Client Communication

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

1. No documentation discrepancies, changes, or amendments were noted.

#### B. Method Modifications, Non-Conformances and Observations

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

1. EPA 8270C Non-conformance: Samples 106408-02 through -05. Laboratory control sample (LCS) analytes 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and laboratory control sample duplicate (LCSD) analytes Pyridine, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Pentachlorophenol were outside recommended recovery limits for QC batch SV-1957-P.
2. EPA 8270C Non-conformance: Samples 106408-02 through -05. Laboratory control sample (LCS) analytes 2,4-Dinitrophenol and Pentachlorophenol had RPD recoveries outside recommended recovery limits for QC batch SV-1957-P.



## Quality Assurance/Quality Control

### A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

### B. Definitions

**Batches** are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

**Laboratory Control Samples** are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

**Method Blanks** are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

**Surrogate Compounds** are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

**Quality Control Report  
Laboratory Control Sample**

Category: EPA 8015B Mod TPH  
QC Batch ID: HF-2670-M  
Matrix: Soil  
Units: mg/Kg

Instrument ID: GC4 HP 5890  
Extracted: 05-01-07 14:00  
Analyzed: 05-02-07 17:30  
Analyst: NS

Analyte	Spiked	Measured	Recovery	QC Limits
Fuel Oil No. 2	130	120	95 %	60 - 140 %

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
ortho-Terphenyl	2.7	2.6	96 %	60 - 140 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Method modified to quantify total petroleum hydrocarbons in the range n-C 9 through n-C 36. Results are quantified on the basis of a series of aromatic and aliphatic hydrocarbons, using 5-alpha-androstane as an internal standard.  
Sample extraction performed by EPA Method 3546.

**Report Notations:** All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

## Quality Control Report Method Blank

Category: EPA 8015B Mod TPH  
QC Batch ID: HF-2670-M  
Matrix: Soil

Instrument ID: GC4 HP 5890  
Extracted: 05-01-07 14:00  
Analyzed: 05-02-07 16:35  
Analyst: NS

Analyte	Concentration	Notes	Units	Reporting Limit
Total Petroleum Hydrocarbons	BRL		mg/Kg	60

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
ortho-Terphenyl	2.7	2.2	84 %	60 - 140 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Method modified to quantify total petroleum hydrocarbons in the range n-C 9 through n-C 36. Results are quantified on the basis of a series of aromatic and aliphatic hydrocarbons, using 5-alpha-androstane as an internal standard.  
Sample extraction performed by EPA Method 3546.

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

## Quality Control Report Laboratory Control Samples

Category: **Metals**

Matrix: **Soil**

Units: **mg/Kg**

Sample Type	Method	QC Batch ID	Prep Method	Prepared	Analyzed	Instrument ID	Analyst
LCS	EPA 6010B	MB-1165-SL	EPA 3050B	04-30-07 13:30	04-30-07 17:16	ICP-1 PE 3000	MWR
LCS	EPA 7471A	MP-2134-SL	EPA 7471A	04-30-07 12:20	04-30-07 18:03	CVAA-1 PE FIMS	MFP
LCSD	EPA 6010B	MB-1165-SL	EPA 3050B	04-30-07 13:30	04-30-07 17:19	ICP-1 PE 3000	MWR
LCSD	EPA 7471A	MP-2134-SL	EPA 7471A	04-30-07 12:20	04-30-07 18:06	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits		Method
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	LCS	RPD	
7440-38-2	Arsenic	130	130	98%	130	130	95%	2 %	80-119 %	30 %	EPA 6010B
7440-39-3	Barium	320	310	97%	320	300	95%	1 %	83-117 %	30 %	EPA 6010B
7440-43-9	Cadmium	67	63	95%	67	60	90%	3 %	82-118 %	30 %	EPA 6010B
7440-47-3	Chromium	73	70	96%	73	68	94%	1 %	79-121 %	30 %	EPA 6010B
7439-92-1	Lead	130	120	90%	130	110	88%	1 %	82-118 %	30 %	EPA 6010B
7439-97-6	Mercury	8.3	8.5	103%	8.3	8.6	104%	0 %	66-133 %	30 %	EPA 7471A
7782-49-2	Selenium	160	160	99%	160	160	96%	2 %	78-122 %	30 %	EPA 6010B
7440-22-4	Silver	100	98	97%	100	97	96%	1 %	66-134 %	30 %	EPA 6010B

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

**Report Notations:** All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

## Quality Control Report Method Blank

Category: Metals  
Matrix: Soil

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Volume</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B	MB-1165-SB	EPA 3050B	04-30-07 13:30	0.5 g	ICP-1 PE 3000	MWR
EPA 7471A	MP-2134-SB	EPA 7471A	04-30-07 12:20	0.6 g	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-38-2	Arsenic		BRL	mg/Kg	3.0	1	04-30-07 17:13	EPA 6010B
7440-39-3	Barium		BRL	mg/Kg	20	1	04-30-07 17:13	EPA 6010B
7440-43-9	Cadmium		BRL	mg/Kg	0.5	1	04-30-07 17:13	EPA 6010B
7440-47-3	Chromium		BRL	mg/Kg	10	1	04-30-07 17:13	EPA 6010B
7439-92-1	Lead		BRL	mg/Kg	10	1	04-30-07 17:13	EPA 6010B
7439-97-6	Mercury		BRL	mg/Kg	0.017	1	04-30-07 18:03	EPA 7471A
7782-49-2	Selenium		BRL	mg/Kg	10	1	04-30-07 17:13	EPA 6010B
7440-22-4	Silver		BRL	mg/Kg	5.0	1	04-30-07 17:13	EPA 6010B

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

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

## Quality Control Report Laboratory Control Samples

Category:	EPA Method 8260B	LCS	Instrument ID:	MS-8 Agilent 6890	LCSD	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0719-SL	Analyzed:	05-08-07 05:17	Analyzed:	05-08-07 05:48		
Matrix:	Soil	Analyst:	LMG	Analyst:	LMG		
Units:	ug/Kg						

Page: 1 of 2

CAS Number	Analyte	LCS			LCS Duplicate			RPD	QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery		Spike	RPD
75-71-8	Dichlorodifluoromethane	50	46	93 %	50	47	94 %	2 %	70 - 130 %	25%
74-87-3	Chloromethane	50	47	95 %	50	48	95 %	0 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	50	44	88 %	50	44	87 %	0 %	70 - 130 %	25%
74-83-9	Bromomethane	50	44	88 %	50	48	95 %	8 %	70 - 130 %	25%
75-00-3	Chloroethane	50	42	83 %	50	40	81 %	3 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	50	43	87 %	50	44	89 %	2 %	70 - 130 %	25%
60-29-7	Diethyl Ether	100	72	72 %	100	78	78 %	8 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	50	42	84 %	50	42	84 %	1 %	70 - 130 %	25%
76-13-1	1,1,2-Trichlorotrifluoroethane	100	91	91 %	100	93	93 %	2 %	70 - 130 %	25%
67-64-1	Acetone	100	88	88 %	100	88	88 %	1 %	70 - 130 %	25%
75-15-0	Carbon Disulfide	100	88	88 %	100	90	90 %	2 %	70 - 130 %	25%
75-09-2	Methylene Chloride	50	36	72 %	50	37	73 %	2 %	70 - 130 %	25%
156-60-5	trans- 1,2-Dichloroethene	50	42	85 %	50	44	88 %	4 %	70 - 130 %	25%
1634-04-4	Methyl tert- butyl Ether (MTBE)	50	50	100 %	50	48	96 %	4 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	50	47	93 %	50	48	96 %	2 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	50	44	89 %	50	46	93 %	4 %	70 - 130 %	25%
156-59-2	cis- 1,2-Dichloroethene	50	48	96 %	50	48	95 %	1 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)	100	92	92 %	100	82	82 %	12 %	70 - 130 %	25%
74-97-5	Bromochloromethane	50	48	95 %	50	48	97 %	1 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	100	77	77 %	100	83	83 %	7 %	70 - 130 %	25%
67-66-3	Chloroform	50	45	90 %	50	46	93 %	3 %	70 - 130 %	25%
71-55-6	1,1,1-Trichloroethane	50	46	92 %	50	48	96 %	4 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	50	45	91 %	50	45	90 %	1 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	50	40	80 %	50	42	84 %	5 %	70 - 130 %	25%
71-43-2	Benzene	50	42	83 %	50	44	88 %	5 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	50	45	89 %	50	44	89 %	1 %	70 - 130 %	25%
79-01-6	Trichloroethene	50	44	88 %	50	43	86 %	3 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	50	42	84 %	50	42	83 %	1 %	70 - 130 %	25%
74-95-3	Dibromomethane	50	45	90 %	50	50	99 %	10 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	50	49	98 %	50	51	101 %	3 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	1000	840	84 %	1000	840	84 %	0 %	70 - 130 %	25%
10061-01-5	cis- 1,3-Dichloropropene	50	42	84 %	50	41	82 %	3 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	100	94	94 %	100	97	97 %	3 %	70 - 130 %	25%
108-88-3	Toluene	50	43	87 %	50	46	92 %	6 %	70 - 130 %	25%
10061-02-6	trans- 1,3-Dichloropropene	50	50	99 %	50	51	103 %	3 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	50	49	98 %	50	49	99 %	1 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	50	49	99 %	50	51	102 %	3 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	50	50	100 %	50	50	101 %	1 %	70 - 130 %	25%
591-78-6	2-Hexanone	100	110	109 %	100	110	107 %	2 %	70 - 130 %	25%
124-48-1	Dibromochloromethane	50	55	110 %	50	52	105 %	5 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	50	60	119 %	50	54	109 %	9 %	70 - 130 %	25%
108-90-7	Chlorobenzene	50	49	99 %	50	49	99 %	0 %	70 - 130 %	25%
630-20-6	1,1,1,2-Tetrachloroethane	50	59	119 %	50	57	114 %	5 %	70 - 130 %	25%
100-41-4	Ethylbenzene	50	51	103 %	50	51	103 %	0 %	70 - 130 %	25%
108-38-3/106-42-3	meta- Xylene and para- Xylene	100	100	102 %	100	100	103 %	1 %	70 - 130 %	25%
95-47-6	ortho- Xylene	50	51	102 %	50	50	100 %	2 %	70 - 130 %	25%
100-42-5	Styrene	50	53	106 %	50	53	106 %	1 %	70 - 130 %	25%
75-25-2	Bromoform	50	58	116 %	50	55	110 %	5 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	50	47	93 %	50	47	95 %	2 %	70 - 130 %	25%

## Quality Control Report Laboratory Control Samples

Category:	EPA Method 8260B	LCS	Instrument ID:	MS-8 Agilent 6890	LCS	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0719-SL	Analyzed:	05-08-07 05:17	Analyzed:	05-08-07 05:48	Analyzed:	05-08-07 05:48
Matrix:	Soil	Analyst:	LMG	Analyst:	LMG	Analyst:	LMG
Units:	ug/Kg						

Page: 2 of 2

CAS Number	Analyte	LCS			LCS Duplicate			RPD	QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery		Spike	RPD
108-86-1	Bromobenzene	50	51	102 %	50	54	107 %	5 %	70 - 130 %	25 %
79-34-5	1,1,2,2-Tetrachloroethane	50	47	94 %	50	49	97 %	3 %	70 - 130 %	25 %
96-18-4	1,2,3-Trichloropropane	50	59	118 %	50	52	105 %	12 %	70 - 130 %	25 %
103-65-1	n-Propylbenzene	50	48	95 %	50	49	98 %	2 %	70 - 130 %	25 %
95-49-8	2-Chlorotoluene	50	51	101 %	50	52	104 %	3 %	70 - 130 %	25 %
108-67-8	1,3,5-Trimethylbenzene	50	51	101 %	50	52	104 %	2 %	70 - 130 %	25 %
106-43-4	4-Chlorotoluene	50	51	102 %	50	51	103 %	1 %	70 - 130 %	25 %
98-06-6	tert-Butylbenzene	50	50	100 %	50	50	99 %	1 %	70 - 130 %	25 %
95-63-6	1,2,4-Trimethylbenzene	50	53	106 %	50	55	110 %	3 %	70 - 130 %	25 %
135-98-8	sec-Butylbenzene	50	48	97 %	50	50	100 %	3 %	70 - 130 %	25 %
541-73-1	1,3-Dichlorobenzene	50	51	101 %	50	51	102 %	1 %	70 - 130 %	25 %
99-87-6	4-Isopropyltoluene	50	49	99 %	50	52	103 %	4 %	70 - 130 %	25 %
106-46-7	1,4-Dichlorobenzene	50	50	101 %	50	51	103 %	2 %	70 - 130 %	25 %
95-50-1	1,2-Dichlorobenzene	50	50	100 %	50	51	101 %	1 %	70 - 130 %	25 %
104-51-8	n-Butylbenzene	50	49	97 %	50	51	101 %	4 %	70 - 130 %	25 %
96-12-8	1,2-Dibromo-3-chloropropane	50	58	117 %	50	59	117 %	0 %	70 - 130 %	25 %
120-82-1	1,2,4-Trichlorobenzene	50	55	110 %	50	54	108 %	2 %	70 - 130 %	25 %
87-68-3	Hexachlorobutadiene	50	52	104 %	50	55	109 %	5 %	70 - 130 %	25 %
91-20-3	Naphthalene	50	48	96 %	50	50	101 %	5 %	70 - 130 %	25 %
87-61-6	1,2,3-Trichlorobenzene	50	57	113 %	50	59	117 %	4 %	70 - 130 %	25 %
75-65-0	tert-Butyl Alcohol (TBA)	1000	1000	102 %	1000	990	99 %	2 %	70 - 130 %	25 %
108-20-3	Di-isopropyl Ether (DIPE)	50	47	94 %	50	47	94 %	0 %	70 - 130 %	25 %
637-92-3	Ethyl tert-butyl Ether (ETBE)	50	44	88 %	50	46	91 %	3 %	70 - 130 %	25 %
994-05-8	tert-Amyl Methyl Ether (TAME)	50	47	94 %	50	48	96 %	2 %	70 - 130 %	25 %

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	50	44	89 %	50	45	90 %	70 - 130 %
1,2-Dichloroethane-d <sub>4</sub>	50	39	78 %	50	38	77 %	70 - 130 %
Toluene-d <sub>8</sub>	50	44	88 %	50	46	92 %	70 - 130 %
4-Bromofluorobenzene	50	46	92 %	50	46	92 %	70 - 130 %

**Method Reference:** Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Sample preparation performed by EPA Method 5030B.

**Report Notations:** All calculations performed prior to rounding. Quality Control Limits are defined by the methodology,  
or alternatively based upon the historical average recovery plus or minus three standard deviation units.

## Quality Control Report Method Blank

Category: EPA Method 8260B  
QC Batch ID: VM8-0719-SB  
Matrix: Soil

Instrument ID: MS-8 Agilent 6890  
Analyzed: 05-08-07 06:26  
Analyst: LMG

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/Kg	10
74-87-3	Chloromethane	BRL		ug/Kg	10
75-01-4	Vinyl Chloride	BRL		ug/Kg	10
74-83-9	Bromomethane	BRL		ug/Kg	10
75-00-3	Chloroethane	BRL		ug/Kg	10
75-69-4	Trichlorofluoromethane	BRL		ug/Kg	10
60-29-7	Diethyl Ether	BRL		ug/Kg	10
75-35-4	1,1-Dichloroethene	BRL		ug/Kg	5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/Kg	50
67-64-1	Acetone	BRL		ug/Kg	200
75-15-0	Carbon Disulfide	BRL		ug/Kg	50
75-09-2	Methylene Chloride	BRL		ug/Kg	50
156-60-5	trans- 1,2-Dichloroethene	BRL		ug/Kg	5
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL		ug/Kg	5
75-34-3	1,1-Dichloroethane	BRL		ug/Kg	5
594-20-7	2,2-Dichloropropane	BRL		ug/Kg	5
156-59-2	cis- 1,2-Dichloroethene	BRL		ug/Kg	5
78-93-3	2-Butanone (MEK)	BRL		ug/Kg	50
74-97-5	Bromochloromethane	BRL		ug/Kg	5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/Kg	50
67-66-3	Chloroform	BRL		ug/Kg	5
71-55-6	1,1,1-Trichloroethane	BRL		ug/Kg	5
56-23-5	Carbon Tetrachloride	BRL		ug/Kg	5
563-58-6	1,1-Dichloropropene	BRL		ug/Kg	5
71-43-2	Benzene	BRL		ug/Kg	5
107-06-2	1,2-Dichloroethane	BRL		ug/Kg	5
79-01-6	Trichloroethene	BRL		ug/Kg	5
78-87-5	1,2-Dichloropropane	BRL		ug/Kg	5
74-95-3	Dibromomethane	BRL		ug/Kg	5
75-27-4	Bromodichloromethane	BRL		ug/Kg	5
123-91-1	1,4-Dioxane	BRL		ug/Kg	5000
10061-01-5	cis- 1,3-Dichloropropene	BRL		ug/Kg	5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/Kg	50
108-88-3	Toluene	BRL		ug/Kg	5
10061-02-6	trans- 1,3-Dichloropropene	BRL		ug/Kg	5
79-00-5	1,1,2-Trichloroethane	BRL		ug/Kg	5
127-18-4	Tetrachloroethene	BRL		ug/Kg	5
142-28-9	1,3-Dichloropropane	BRL		ug/Kg	5
591-78-6	2-Hexanone	BRL		ug/Kg	50
124-48-1	Dibromochloromethane	BRL		ug/Kg	5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/Kg	5
108-90-7	Chlorobenzene	BRL		ug/Kg	5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/Kg	5
100-41-4	Ethylbenzene	BRL		ug/Kg	5
108-38-3/106-42-3	meta- Xylene and para- Xylene	BRL		ug/Kg	5
95-47-6	ortho- Xylene	BRL		ug/Kg	5
100-42-5	Styrene	BRL		ug/Kg	5
75-25-2	Bromoform	BRL		ug/Kg	5
98-82-8	Isopropylbenzene	BRL		ug/Kg	5

## Quality Control Report Method Blank

Category: EPA Method 8260B  
QC Batch ID: VM8-0719-SB  
Matrix: Soil

Instrument ID: MS-8 Agilent 6890  
Analyzed: 05-08-07 06:26  
Analyst: LMG

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL		ug/Kg	5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/Kg	5
96-18-4	1,2,3-Trichloropropane	BRL		ug/Kg	5
103-65-1	<i>n</i> -Propylbenzene	BRL		ug/Kg	5
95-49-8	2-Chlorotoluene	BRL		ug/Kg	5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/Kg	5
106-43-4	4-Chlorotoluene	BRL		ug/Kg	5
98-06-6	<i>tert</i> -Butylbenzene	BRL		ug/Kg	5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/Kg	5
135-98-8	<i>sec</i> -Butylbenzene	BRL		ug/Kg	5
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	5
99-87-6	4-Isopropyltoluene	BRL		ug/Kg	5
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	5
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	5
104-51-8	<i>n</i> -Butylbenzene	BRL		ug/Kg	5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/Kg	5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	5
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	5
91-20-3	Naphthalene	BRL		ug/Kg	5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/Kg	5
75-65-0	<i>tert</i> -Butyl Alcohol (TBA)	BRL		ug/Kg	200
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/Kg	5
637-92-3	Ethyl <i>tert</i> -butyl Ether (ETBE)	BRL		ug/Kg	5
994-05-8	<i>tert</i> -Amyl Methyl Ether (TAME)	BRL		ug/Kg	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	50	46	92 %	70 - 130 %
1,2-Dichloroethane- <i>d</i> <sub>4</sub>	50	36	72 %	70 - 130 %
Toluene- <i>d</i> <sub>8</sub>	50	44	87 %	70 - 130 %
4-Bromofluorobenzene	50	46	92 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Sample preparation performed by EPA Method 5030B.

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

## Quality Control Report Laboratory Control Samples

Category:	EPA Method 8270C	LCS	Instrument ID:	MS-3 HP 5890	LCSD	Instrument ID:	MS-3 HP 5890
QC Batch ID:	SV-1957-P	Extracted:	04-30-07 14:00	Extracted:	04-30-07 14:00	Analyzed:	05-08-07 10:13
Matrix:	Soil	Analyzed:	05-08-07 09:32	Analyzed:	05-08-07 10:13	Analyst:	MJB
Units:	ug/Kg	Analyst:	MJB	Analyst:	MJB		

Page: 1 of 2

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
62-75-9	N-Nitrosodimethylamine	3,300	1,700	50 %	3,300	1,400	43 %	14 %	40 - 140 %	25%
110-86-1	Pyridine	3,300	1,300	40 %	3,300	1,300	38 %	5 %	40 - 140 %	25%
108-95-2	Phenol	3,300	2,500	74 %	3,300	2,200	66 %	12 %	30 - 130 %	25%
62-53-3	Aniline	3,300	2,000	59 %	3,300	1,600	49 %	20 %	40 - 140 %	25%
111-44-4	Bis(2-chloroethyl) ether	3,300	1,800	53 %	3,300	1,500	46 %	13 %	40 - 140 %	25%
95-57-8	2-Chlorophenol	3,300	2,200	65 %	3,300	1,900	58 %	11 %	30 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	3,300	2,200	66 %	3,300	2,000	59 %	12 %	40 - 140 %	25%
106-46-7	1,4-Dichlorobenzene	3,300	2,200	65 %	3,300	2,000	59 %	11 %	40 - 140 %	25%
100-51-6	Benzyl Alcohol	3,300	2,600	77 %	3,300	2,300	68 %	12 %	30 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	3,300	2,200	66 %	3,300	2,000	59 %	12 %	40 - 140 %	25%
95-48-7	2-Methylphenol	3,300	2,500	76 %	3,300	2,200	67 %	13 %	30 - 130 %	25%
108-60-1	Bis(2-chloroisopropyl) ether	3,300	1,700	52 %	3,300	1,500	46 %	12 %	40 - 140 %	25%
106-44-5	4-Methylphenol	3,300	2,600	78 %	3,300	2,300	70 %	12 %	30 - 130 %	25%
621-64-7	N-Nitrosodi-n-propylamine	3,300	2,000	59 %	3,300	1,700	52 %	13 %	40 - 140 %	25%
98-86-2	Acetophenone	3,300	2,100	63 %	3,300	1,900	56 %	11 %	40 - 140 %	25%
67-72-1	Hexachloroethane	3,300	2,100	64 %	3,300	1,900	57 %	11 %	40 - 140 %	25%
98-95-3	Nitrobenzene	3,300	2,400	72 %	3,300	2,100	63 %	14 %	40 - 140 %	25%
78-59-1	Isophorone	3,300	2,100	64 %	3,300	1,900	56 %	14 %	40 - 140 %	25%
88-75-5	2-Nitrophenol	3,300	2,500	76 %	3,300	2,300	68 %	11 %	30 - 130 %	25%
105-67-9	2,4-Dimethylphenol	3,300	2,400	73 %	3,300	2,100	64 %	13 %	30 - 130 %	25%
111-91-1	Bis(2-chloroethoxy) methane	3,300	2,000	59 %	3,300	1,700	51 %	13 %	40 - 140 %	25%
120-83-2	2,4-Dichlorophenol	3,300	2,500	76 %	3,300	2,200	66 %	13 %	30 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	3,300	2,400	73 %	3,300	2,200	67 %	9 %	40 - 140 %	25%
91-20-3	Naphthalene	3,300	2,200	66 %	3,300	1,900	57 %	14 %	40 - 140 %	25%
106-47-8	4-Chloroaniline	3,300	2,200	65 %	3,300	1,900	58 %	11 %	40 - 140 %	25%
87-68-3	Hexachlorobutadiene	3,300	2,300	70 %	3,300	2,100	63 %	11 %	40 - 140 %	25%
59-50-7	4-Chloro-3-methylphenol	3,300	2,600	79 %	3,300	2,300	70 %	12 %	30 - 130 %	25%
91-57-6	2-Methylnaphthalene	3,300	2,700	82 %	3,300	2,400	72 %	12 %	40 - 140 %	25%
77-47-4	Hexachlorocyclopentadiene	3,300	1,900	57 %	3,300	1,600	48 %	17 %	40 - 140 %	25%
88-06-2	2,4,6-Trichlorophenol	3,300	2,400	71 %	3,300	2,100	63 %	13 %	30 - 130 %	25%
95-95-4	2,4,5-Trichlorophenol	3,300	2,900	87 %	3,300	2,400	71 %	20 %	30 - 130 %	25%
91-58-7	2-Chloronaphthalene	3,300	2,300	69 %	3,300	2,000	60 %	14 %	40 - 140 %	25%
88-74-4	2-Nitroaniline	3,300	2,700	80 %	3,300	2,300	69 %	15 %	40 - 140 %	25%
100-25-4	1,4-Dinitrobenzene	3,300	2,500	74 %	3,300	2,100	64 %	14 %	40 - 140 %	25%
131-11-3	Dimethyl phthalate	3,300	2,400	72 %	3,300	2,100	64 %	13 %	40 - 140 %	25%
99-65-0	1,3-Dinitrobenzene	3,300	2,400	72 %	3,300	2,100	63 %	12 %	40 - 140 %	25%
208-96-8	Acenaphthylene	3,300	2,300	68 %	3,300	2,000	60 %	13 %	40 - 140 %	25%
606-20-2	2,6-Dinitrotoluene	3,300	2,600	77 %	3,300	2,300	68 %	12 %	40 - 140 %	25%
528-29-0	1,2-Dinitrobenzene	3,300	2,200	67 %	3,300	1,900	58 %	14 %	40 - 140 %	25%
99-09-2	3-Nitroaniline	3,300	2,700	80 %	3,300	2,200	67 %	16 %	40 - 140 %	25%
83-32-9	Acenaphthene	3,300	2,100	63 %	3,300	1,900	56 %	13 %	40 - 140 %	25%
51-28-5	2,4-Dinitrophenol	3,300	0	0 %	3,300	0	0 %	0 %	30 - 130 %	25%
100-02-7	4-Nitrophenol	3,300	2,300	68 %	3,300	1,900	57 %	18 %	30 - 130 %	25%
132-64-9	Dibenzofuran	3,300	2,900	88 %	3,300	2,600	77 %	13 %	40 - 140 %	25%
121-14-2	2,4-Dinitrotoluene	3,300	2,400	72 %	3,300	2,100	63 %	14 %	40 - 140 %	25%
84-66-2	Diethyl phthalate	3,300	2,300	68 %	3,300	2,000	59 %	14 %	40 - 140 %	25%
7005-72-3	4-Chlorophenyl phenyl ether	3,300	2,300	70 %	3,300	2,100	62 %	13 %	40 - 140 %	25%
86-73-7	Fluorene	3,300	2,300	70 %	3,300	2,000	60 %	15 %	40 - 140 %	25%

## Quality Control Report Laboratory Control Samples

Category:	EPA Method 8270C	LCS	Instrument ID:	MS-3 HP 5890	LCSD	Instrument ID:	MS-3 HP 5890
QC Batch ID:	SV-1957-P	Extracted:	04-30-07 14:00	Extracted:	04-30-07 14:00	Analyzed:	05-08-07 10:13
Matrix:	Soil	Analyzed:	05-08-07 09:32	Analyzed:	05-08-07 10:13	Analyst:	MJB
Units:	ug/Kg	Analyst:	MJB	Analyst:	MJB		

Page: 2 of 2

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
100-01-6	4-Nitroaniline	3,300	2,600	79 %	3,300	2,200	66 %	17 %	40 - 140 %	25 %
534-52-1	4,6-Dinitro-2-methylphenol	3,300	630	19 % q	3,300	580	17 % q	7 %	30 - 130 %	25 %
86-30-6	N-Nitrosodiphenylamine †	3,300	2,400	71 %	3,300	2,000	59 %	18 %	40 - 140 %	25 %
122-66-7	1,2-Diphenylhydrazine à	3,300	2,400	71 %	3,300	2,000	60 %	17 %	40 - 140 %	25 %
101-55-3	4-Bromophenyl phenyl ether	3,300	2,900	86 %	3,300	2,500	75 %	14 %	40 - 140 %	25 %
118-74-1	Hexachlorobenzene	3,300	2,700	80 %	3,300	2,200	67 %	17 %	40 - 140 %	25 %
87-86-5	Pentachlorophenol	3,300	1,200	36 %	3,300	830	25 % q	37 % q	30 - 130 %	25 %
85-01-8	Phenanthrene	3,300	2,300	69 %	3,300	2,000	59 %	14 %	40 - 140 %	25 %
120-12-7	Anthracene	3,300	2,300	69 %	3,300	2,000	59 %	15 %	40 - 140 %	25 %
86-74-8	Carbazole	3,300	2,300	68 %	3,300	2,000	59 %	15 %	40 - 140 %	25 %
84-74-2	Di-n-butyl phthalate	3,300	2,300	69 %	3,300	2,000	60 %	13 %	40 - 140 %	25 %
206-44-0	Fluoranthene	3,300	2,400	71 %	3,300	2,100	62 %	14 %	40 - 140 %	25 %
129-00-0	Pyrene	3,300	2,300	70 %	3,300	2,000	61 %	15 %	40 - 140 %	25 %
85-68-7	Butyl benzyl phthalate	3,300	2,100	63 %	3,300	1,800	55 %	14 %	40 - 140 %	25 %
91-94-1	3,3'-Dichlorobenzidine	3,300	2,200	65 %	3,300	1,800	54 %	18 %	40 - 140 %	25 %
56-55-3	Benzo[a]anthracene	3,300	2,300	69 %	3,300	2,000	59 %	15 %	40 - 140 %	25 %
218-01-9	Chrysene	3,300	2,300	68 %	3,300	2,000	60 %	13 %	40 - 140 %	25 %
117-81-7	Bis(2-ethylhexyl) phthalate	3,300	2,300	68 %	3,300	1,900	58 %	15 %	40 - 140 %	25 %
117-84-0	Di-n-octyl phthalate	3,300	2,400	71 %	3,300	2,000	61 %	14 %	40 - 140 %	25 %
205-99-2	Benzo[b]fluoranthene	3,300	2,300	69 %	3,300	2,000	61 %	11 %	40 - 140 %	25 %
207-08-9	Benzo[k]fluoranthene	3,300	2,400	71 %	3,300	2,100	62 %	14 %	40 - 140 %	25 %
50-32-8	Benzo[a]pyrene	3,300	2,300	69 %	3,300	2,000	60 %	13 %	40 - 140 %	25 %
193-39-5	Indeno[1,2,3-c,d]pyrene	3,300	2,500	75 %	3,300	2,100	62 %	18 %	40 - 140 %	25 %
53-70-3	Dibenzo[a,h]anthracene	3,300	2,500	74 %	3,300	2,100	62 %	17 %	40 - 140 %	25 %
191-24-2	Benzo[g,h,i]perylene	3,300	2,500	75 %	3,300	2,100	63 %	18 %	40 - 140 %	25 %

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	13,000	9,300	70 %	13,000	8,200	62 %	30 - 130 %
Phenol-d5	13,000	9,300	70 %	13,000	8,100	60 %	30 - 130 %
Nitrobenzene-d5	6,700	4,200	63 %	6,700	3,700	55 %	30 - 130 %
2-Fluorobiphenyl	6,700	4,100	62 %	6,700	3,600	54 %	30 - 130 %
2,4,6-Tribromophenol	13,000	10,000	77 %	13,000	8,900	67 %	30 - 130 %
Terphenyl-d14	6,700	4,500	67 %	6,700	3,900	59 %	30 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Sample extraction performed by EPA Method 3545.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

◇ Analyzed as Azobenzene.

q Recovery outside recommended limits.

## Quality Control Report Method Blank

Category: EPA Method 8270C  
QC Batch ID: SV-1957-P  
Matrix: Soil

Instrument ID: MS-3 HP 5890  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 10:55  
Analyst: MJB

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/Kg	330
110-86-1	Pyridine	BRL		ug/Kg	330
108-95-2	Phenol	BRL		ug/Kg	330
62-53-3	Aniline	BRL		ug/Kg	330
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/Kg	330
95-57-8	2-Chlorophenol	BRL		ug/Kg	330
541-73-1	1,3-Dichlorobenzene	BRL		ug/Kg	330
106-46-7	1,4-Dichlorobenzene	BRL		ug/Kg	330
100-51-6	Benzyl Alcohol	BRL		ug/Kg	330
95-50-1	1,2-Dichlorobenzene	BRL		ug/Kg	330
95-48-7	2-Methylphenol	BRL		ug/Kg	330
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/Kg	330
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/Kg	330
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/Kg	330
98-86-2	Acetophenone	BRL		ug/Kg	330
67-72-1	Hexachloroethane	BRL		ug/Kg	330
98-95-3	Nitrobenzene	BRL		ug/Kg	330
78-59-1	Isophorone	BRL		ug/Kg	330
88-75-5	2-Nitrophenol	BRL		ug/Kg	330
105-67-9	2,4-Dimethylphenol	BRL		ug/Kg	330
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/Kg	330
120-83-2	2,4-Dichlorophenol	BRL		ug/Kg	330
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/Kg	330
91-20-3	Naphthalene	BRL		ug/Kg	330
106-47-8	4-Chloroaniline	BRL		ug/Kg	330
87-68-3	Hexachlorobutadiene	BRL		ug/Kg	330
59-50-7	4-Chloro-3-methylphenol	BRL		ug/Kg	330
91-57-6	2-Methylnaphthalene	BRL		ug/Kg	330
77-47-4	Hexachlorocyclopentadiene	BRL		ug/Kg	330
88-06-2	2,4,6-Trichlorophenol	BRL		ug/Kg	330
95-95-4	2,4,5-Trichlorophenol	BRL		ug/Kg	330
91-58-7	2-Chloronaphthalene	BRL		ug/Kg	330
88-74-4	2-Nitroaniline	BRL		ug/Kg	330
100-25-4	1,4-Dinitrobenzene	BRL		ug/Kg	330
131-11-3	Dimethyl phthalate	BRL		ug/Kg	330
99-65-0	1,3-Dinitrobenzene	BRL		ug/Kg	330
208-96-8	Acenaphthylene	BRL		ug/Kg	330
606-20-2	2,6-Dinitrotoluene	BRL		ug/Kg	330
528-29-0	1,2-Dinitrobenzene	BRL		ug/Kg	330
99-09-2	3-Nitroaniline	BRL		ug/Kg	330
83-32-9	Acenaphthene	BRL		ug/Kg	330
51-28-5	2,4-Dinitrophenol	BRL		ug/Kg	670
100-02-7	4-Nitrophenol	BRL		ug/Kg	330
132-64-9	Dibenzofuran	BRL		ug/Kg	330
121-14-2	2,4-Dinitrotoluene	BRL		ug/Kg	330
84-66-2	Diethyl phthalate	BRL		ug/Kg	330
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/Kg	330
86-73-7	Fluorene	BRL		ug/Kg	330
100-01-6	4-Nitroaniline	BRL		ug/Kg	330

## Quality Control Report Method Blank

Category: EPA Method 8270C  
QC Batch ID: SV-1957-P  
Matrix: Soil

Instrument ID: MS-3 HP 5890  
Extracted: 04-30-07 14:00  
Analyzed: 05-08-07 10:55  
Analyst: MJB

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/Kg	330
86-30-6	N-Nitrosodiphenylamine <sup>†</sup>	BRL		ug/Kg	330
122-66-7	1,2-Diphenylhydrazine <sup>◊</sup>	BRL		ug/Kg	330
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/Kg	330
118-74-1	Hexachlorobenzene	BRL		ug/Kg	330
87-86-5	Pentachlorophenol	BRL		ug/Kg	330
85-01-8	Phenanthrene	BRL		ug/Kg	330
120-12-7	Anthracene	BRL		ug/Kg	330
86-74-8	Carbazole	BRL		ug/Kg	330
84-74-2	Di-n-butyl phthalate	BRL		ug/Kg	330
206-44-0	Fluoranthene	BRL		ug/Kg	330
129-00-0	Pyrene	BRL		ug/Kg	330
85-68-7	Butyl benzyl phthalate	BRL		ug/Kg	330
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/Kg	330
56-55-3	Benzo[a]anthracene	BRL		ug/Kg	330
218-01-9	Chrysene	BRL		ug/Kg	330
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/Kg	330
117-84-0	Di-n-octyl phthalate	BRL		ug/Kg	330
205-99-2	Benzo[b]fluoranthene	BRL		ug/Kg	330
207-08-9	Benzo[k]fluoranthene	BRL		ug/Kg	330
50-32-8	Benzo[a]pyrene	BRL		ug/Kg	330
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL		ug/Kg	330
53-70-3	Dibenzo[a,h]anthracene	BRL		ug/Kg	330
191-24-2	Benzo[g,h,i]perylene	BRL		ug/Kg	330

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	13,000	9,700	73 %	30 - 130 %
Phenol-d5	13,000	9,400	70 %	30 - 130 %
Nitrobenzene-d5	6,700	4,300	65 %	30 - 130 %
2-Fluorobiphenyl	6,700	4,500	67 %	30 - 130 %
2,4,6-Tribromophenol	13,000	11,000	80 %	30 - 130 %
Terphenyl-d14	6,700	5,400	81 %	30 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).  
Sample extraction performed by EPA Method 3545.

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

\* Analyzed as 4-Methylphenol.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

◊ Analyzed as Azobenzene.

## Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.

Copies of our current certificates may be obtained from our website:

<http://www.groundwateranalytical.com/qualifications.htm>

### CONNECTICUT

Department of Health Services, PH-0586

[http://www.dph.state.ct.us/BRS/Environmental\\_Lab/out\\_state.pdf](http://www.dph.state.ct.us/BRS/Environmental_Lab/out_state.pdf)

Potable Water, Wastewater, Solid Waste and Soil

### FLORIDA

Department of Health, Bureau of Laboratories, E87643

<http://www.floridadep.org/labs/qa/dohforms.htm>

SDWA, CWA, RCRA/CERCLA

### MAINE

Department of Health and Human Services, MA0103

<http://www.maine.gov/dhhs/eng/water/Templates/LabCertification/LabCertification.htm>

Drinking Water and Wastewater

Department of Environmental Protection, LB-0072

Asbestos Analytical Laboratory (Bulk)

### MASSACHUSETTS

Department of Environmental Protection, M-MA-103

<http://public.dep.state.ma.us/labcert/labcert.aspx>

Potable Water and Non-Potable Water

Department of Labor,

Division of Occupational Safety, AA000195

[http://www.mass.gov/dos/forms/la-rpt\\_list\\_aa.pdf](http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf)

Asbestos Analytical Services, Class A

### NEW HAMPSHIRE

Department of Environmental Services, 2027

<http://www.des.state.nh.us/asp/NHELAP/labsview.asp>

Drinking Water and Wastewater

### NIST NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP)

NVLAP Lab Code 200751-1

<http://ts.nist.gov/Standards/scopes/plmtm.htm>

Bulk Asbestos Fiber Analysis (PLM)

### NEW YORK

Department of Health, 11754

<http://www.wadsworth.org/labcert/elap/comm.html>

Potable Water, Non-Potable Water and Solid Waste

### RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

<http://www.health.ri.gov/labs/outofstatelabs.pdf>

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

Department of Health,

Office of Occupational and Radiological Health, AAL-110B3

<http://www.health.ri.gov/environment/occupational/asbestos/licensees/AsbestosAnalyticalLabs.pdf>

Asbestos Analytical Service, Polarized Light Microscopy (PLM)

### U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

### VERMONT

Department of Health, VT87643

[http://healthvermont.gov/enviro/ph\\_lab/documents/certified\\_labs.pdf](http://healthvermont.gov/enviro/ph_lab/documents/certified_labs.pdf)

Drinking Water Microbiological, Inorganic and Organic Analyses