DC
MAG910148

PROUDLY CELEBRATING 20 YEARS Of Outstanding Service 1985 – 2005

CORPORATE ENVIRONMENTAL ADVISORS, INC.

Hand Delivered
October 24, 2005

US Environmental Protection Agency
RGP – NOC Processing
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, MA 02114-2023

OCT 24

RE: Remediation General Permit (RGP) - Notice of Intent (NOI) Submittal
Route 128 Southbound Rest Area
Newton, Massachusetts 02459
DEP Release Tracking No. 3-1536
NPDES Temporary Number MA-021050

To Whom It May Concern:

On behalf of McDonald's Corporation, Corporate Environmental Advisors, Inc. is submitting this Remediation General Permit (RGP) - Notice of Intent (NOI). A high vacuum extraction remedial system has been operating at the above-referenced site and discharging treated groundwater under National Pollutant Discharge Elimination System (NPDES) Permit Exclusion since May 2004.

If you have any questions, please feel free to contact our office at 508-835-8822.

Sincerely,

Alan A. Dion
Sr. Environmental Geologist

Attached: RGP-NOI
Figure 1 – Site Locus
Figure 2 – Aerial Photo
Figure 3 – MA DEP Site Scoring Map
Figure 4 – System Layout w/ Location of NPDES Discharge Point
Figure 5 – Process and Instrumentation Diagram
Laboratory Analytical Reports

pc: Edward Beeler - McDonald's Corporation
690 Canton Street Westwood, Massachusetts 02090

Robert Johnson - Mass Highway Department
10 Park Plaza, Room 4260 Boston, Massachusetts 02116

CEA File 4600-01

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of **facility/site:** FORMER WALLER SUNOCO RestArea		**Facility/site** address:		
Location of **facility/site:** longitude: -71°15'14.10" latitude: 42°19'47.73"	Facility SIC code(s):	Street: Rte 128 southbound		
b) Name of **facility/site owner:** McDonald's Corporation		Town: Newton		
Email address of owner:		State: MA	Zip: 02459	County: Middlesex
Telephone no.of facility/site **owner:** 781-461-4717				
Fax no. of facility/site **owner:** 781-329-8782		**Owner** is (check one): 1. Federal___ 2. State/Tribal___ 3. Private ✓ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: 690 Canton Street				
Town: Westwood.	State: MA	Zip: 02090	County: Norfolk	
c) Legal name of **operator:** Corporate Environmental Advisors, Inc.	**Operator** telephone no: 508-835-8822			
	Operator fax no.: 508-835-8812	**Operator** email: ALAST@cea-inc.com		
Operator contact name and title: ADAM J. LAST, PRINCIPAL ENGINEER				
Address of **operator** (if different from owner):	Street: 127 Hartwell Street			
Town: West Boylston	State: MA	Zip: 01583	County: Worcester	

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ✓ No___, if "yes," number: 021-050 (Temporary #)
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No ✓, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes No ✓
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ✓ No___

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ✓ No ___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: RTN 3-01536 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: MA DEP – Bureau of Waste Site Cleanup (Northeast Region) One Winter St. Boston, MA 02108 (617-292-5500)	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N ✓, if Y, number: 2. phase I or II construction storm water general permit? Y ___ N ✓, if Y, number: 3. individual NPDES permit? Y ___ N ✓, if Y, number: 4. any other water quality related permit? Y ___ N ✓, if Y, number:

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: Groundwater Extracted From Subsurface at a Gasoline Impacted Site ~~is~~ Being Extracted using High Vacuum Technology and Treated Through Granular Activated Carbon Prior to Discharge to a Storm Water Drain Located in the Exit Driveway on the Property.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.0446 Average flow 0.0022 Is maximum flow a **design value**? Y ___ N ✓ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Average Flow Rate (0.0022 $ft^3/sec \simeq 1.01$ gpm) based on historical operations and weekly measurements max Flow Rate (0.0446 $ft^3/s = 20$ gpm) " " " " " " "

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 71°15'13" lat. 42°19'48" pt.2: long.____ lat.____; pt.3: long.____ lat.____; pt.4:long.____ lat.____; pt.5: long.____ lat.____; pt.6:long.____ lat.____; pt.7: long.____ lat.____; pt.8:long.____ lat.____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent No or seasonal No ? Is discharge ongoing Yes ✓ No ___ ?

c) Expected dates of discharge (mm/dd/yy): start 10/24/05 end Indefinite

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	1	Grab	SM2540D	5 mg/L	24,000	2.15		
2. Total Residual Chlorine	✓		1	"	Hach 8167	20 ug/L	< ML			
3. Total Petroleum Hydrocarbons		✓	1	"	EPA 1664	1.0 mg/L	300	0.027		
4. Cyanide	✓		1	"	10-204-00-1-A SW846 9012A	10 ug/L	< ML			
5. Benzene		✓	13	"	8260B/VPH*	2.5ug/L / 50ug/L	360	0.032		
6. Toluene		✓	13	"	" / "	" / 50ug/L	97	0.009		
7. Ethylbenzene		✓	13	"	" / "	" / 200ug/L	1,390	0.125		
8. (m,p,o) Xylenes		✓	13	"	" / "	5.0ug/L / 400ug/L	2,030	0.182		
9. Total BTEX[4]		✓	1	"	" / "	Analyte Specific	3,877	0.347		

*VPH Groundwater Analytical Data used for analytes known to be present but were not present in the Influent sample collected for this N.O.I. or the most Recent System compliance sampling Event.

[4]BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	✓		1	Grab	504.1	10 ug/L	<ML			
11. Methyl-tert-Butyl Ether (MtBE)		✓	1	"	8260B	2.5ug/L	1,530	0.137		
12. tert-Butyl Alcohol (TBA)		✓	1	"	"	50 ug/L	280	0.025		
13. tert-Amyl Methyl Ether (TAME)		✓	1	"	"	2.5ug/L	4.8	0.0004		
14. Naphthalene		✓	1	"	" /VPH	5ug/L/200ug/L	7,490	0.671		
15. Carbon Tetra-chloride	✓		1	"	8260B	2.5ug/L	<ML			
16. 1,4 Dichlorobenzene	✓		1	"	"	"	<ML			
17. 1,2 Dichlorobenzene	✓		1	"	"	"	<ML			
18. 1,3 Dichlorobenzene	✓		1	"	"	"	<ML			
19. 1,1 Dichloroethane	✓		1	"	"	"	<ML			
20. 1,2 Dichloroethane	✓		1	"	"	"	<ML			
21. 1,1 Dichloroethylene	✓		1	"	"	"	<ML			
22. cis-1,2 Dichloro-ethylene	✓		1	"	"	"	<ML			
23. Dichloromethane (Methylene Chloride)	✓		1	"	"	10 ug/L	<ML			
24. Tetrachloroethylene	✓		1	"	"	2.5 ug/L	<ML			

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No ✓
Has any consultation with the federal services been completed ? No ✓ or is consultation underway? Yes____ No ✓
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes_____ No_____ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No_____

7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

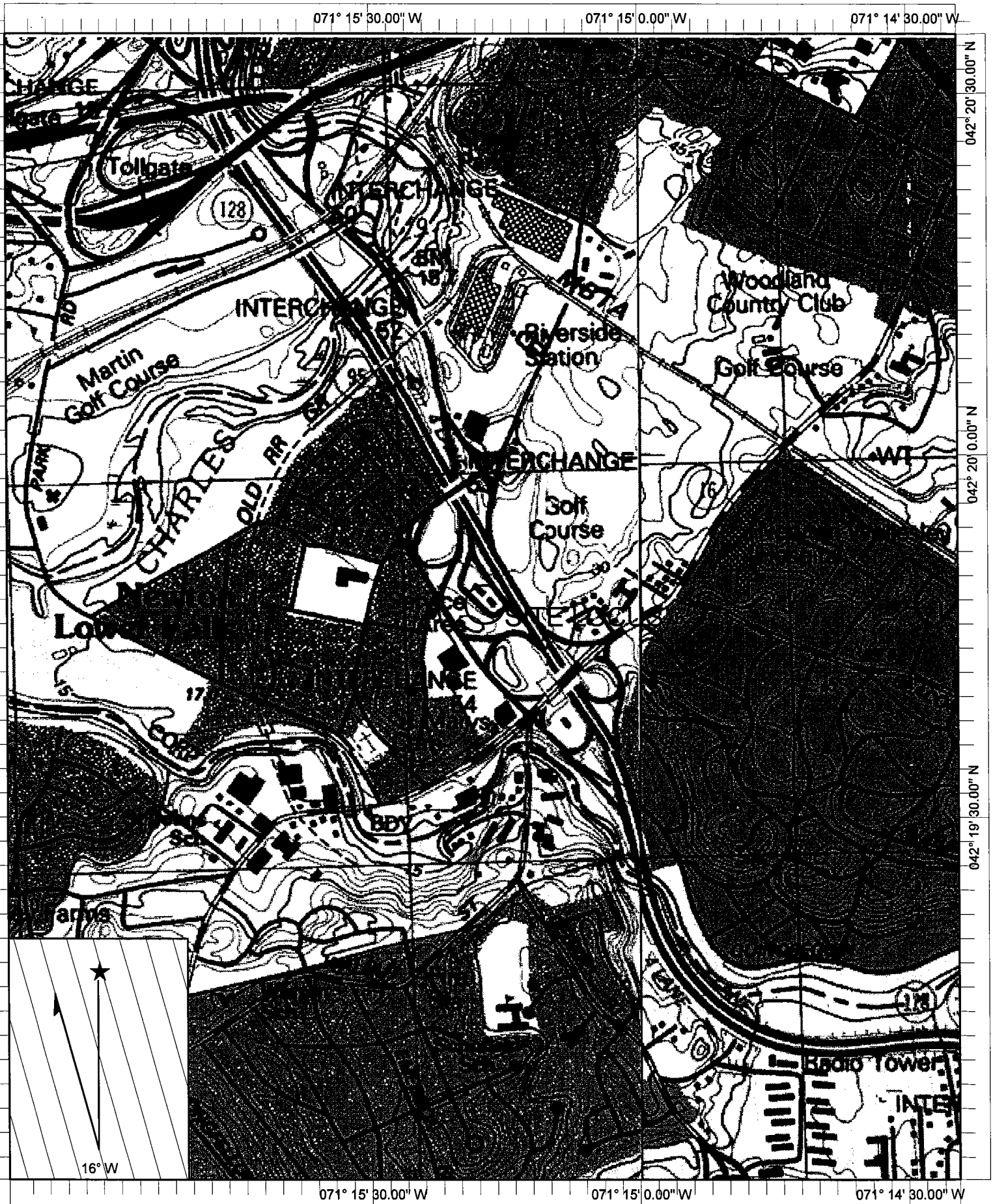
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: Former Waller Sunoco Rest Area, Route 95 South / 128 South Newton MA

Operator signature: Adam J. Last as an Agent of CEA

Title: Principal Engineer

Date: October 21, 2005



Name: FRAMINGHAM
Date: 12/15/2003
Scale: 1 inch equals 1000 feet

Location: 042° 19' 47.6" N 071° 15' 17.5" W
Caption: FIGURE - 1
SITE LOCUS MAP
NOTE: 3 METER CONTOURS

Click the Print button to print this map.

Assessor's Map For: MASS HIGHWAY DEPT CIRCUMFERENTIAL HGWY Neighborhood: 9	Map for Reference Only NOT A LEGAL DOCUMENT	
CITY OF NEWTON MASSACHUSETTS ASSESSING DEPARTMENT 1000 COMMONWEALTH AVE. NEWTON CENTRE, MA 02459 PHONE: 617-796-1160 10/5/2005	Because of different update schedules, current property assessments may not reflect recent changes to property boundaries. Check with the Board of Assessors to confirm boundaries used at time of assessment. FIGURE 2	

MA DEP - Bureau of Waste Site Cleanup

Site Scoring Map: 500 feet & 0.5 Mile Radii

SITE NAME:
Service Area
Route 128 Southbound
Newton, MA
421951n 711513ew

Site Location

The information shown on this map is the best available at the date of printing. Please refer to the data source descriptions document.

Massachusetts Executive Office of Environmental Affairs - 2001

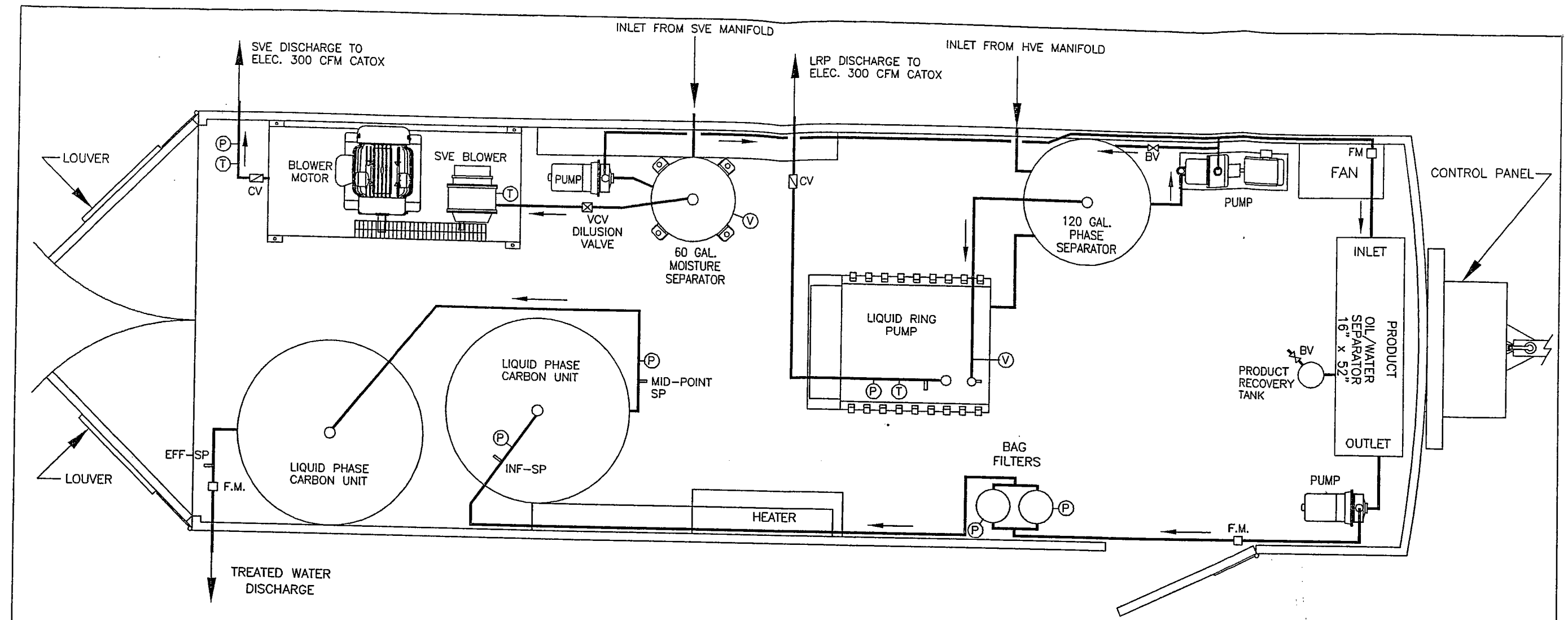
Roads: Limited Access, Divided, Major Road, Connector, Street, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dams
Potentially Productive Aquifers: Medium, High Yield
Non-Potential Drinking Water Source Area: Medium, High Yield
EPA Designated Sole Source Aquifer
Public Water Supplies: Ground, Surface, Non Community
Approved Zone2; IWPA; Surface Water Supply Zone A
Hydrography: Water Features, Public Surface Water Supply
Wetlands: Fresh, Salt, NHESP Wetlands Habitat
Protected Open Space; ACEC
DEP Permitted Solid Waste Facilities; Certified Vernal Pools

SCALE 1:15000

MILES 0 1/2
KILOMETERS 0 1/2 1

March 13, 2001

FIGURE 3



HVE MANIFOLD				SVE MANIFOLD								CATOX	
WELL	HVE-1	HVE-2	HVE-3	SVE-1	SVE-2	SVE-5	SVE-3	SVE-4	SVE-8	SVE-7	SVE-6	INF.	EFF.
VAC													
PPM													
LEL													
O2													
CO													
FPM													
SVE MANIFOLD VALVE POSITION (IN %) →													

SVE BLOWER

VAC _____

TEMP _____

PRES. _____

CATOX TEMP.

T1 _____

T2 _____

T3 _____

COMMENTS:

LEGEND

- (P) PRESSURE GAUGE
- (T) TEMP. GAUGE
- (V) VACUUM GAUGE
- SP ▭ SAMPLE PORT
- FM ☐ FLOW METER
- BV ⋈ BALL VALVE
- CV ◪ CHECK VALVE
- → FLOW DIRECTION

CORPORATE ENVIRONMENTAL ADVISORS, INC.

Assessments – Remediation – Emergency Response

127 HARTWELL ST. W.BOYLSTON, MA.

SCALE: 1"= 2' (APPROX.)		DR. BY: K. HAZEL
DATE: 6/18/04	APP. BY: MW	JOB NO.: 4600-91-15

PROCESS & INSTRUMENTATION DIAGRAM

McDONALD'S

ROUTE 128 SOUTH NEWTON, MA.

FIGURE-5

TECHNICIAN:

DATE:

Report Date:
04-Oct-05 17:49

☑ Final Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583
Attn: Adam Last

Project: McDonald's - Newton, MA (NPDES)
Project #: 4600-01-12

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA34814-01	Inf	Ground Water	27-Sep-05 09:30	27-Sep-05 16:45

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.
Please note that this report contains 20 pages of analytical data including Chain of Custody document(s).
This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Massachusetts Certification # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method indicated. Please refer to our "Quality" webpage at www.spectrum-analytical.com for a full listing of our current certifications.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Inf SA34814-01	4600-01-12	Ground Water	27-Sep-05 09:30	27-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds			Prepared by method	SW846 5030 Water MS						
67-64-1	Acetone	BRL	50.0 µg/l	5	SW 846 8260B	04-Oct-05	04-Oct-05	5100149	RLJ	
71-43-2	Benzene	BRL	2.5 µg/l	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	BRL	2.5 µg/l	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	BRL	2.5 µg/l	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	BRL	2.5 µg/l	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	BRL	2.5 µg/l	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	BRL	2.5 µg/l	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	BRL	2.5 µg/l	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	BRL	2.5 µg/l	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	BRL	2.5 µg/l	5	"	"	"	"	"	
100-41-4	Ethylbenzene	BRL	2.5 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	1,530	2.5 µg/l	5	"	"	"	"	"	
75-09-2	Methylene chloride	BRL	10.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	BRL	2.5 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	BRL	2.5 µg/l	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL	2.5 µg/l	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	BRL	2.5 µg/l	5	"	"	"	"	"	
79-01-6	Trichloroethene	BRL	2.5 µg/l	5	"	"	"	"	"	
75-01-4	Vinyl chloride	BRL	2.5 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	16.8	5.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	19.7	2.5 µg/l	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	4.8	2.5 µg/l	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	280	50.0 µg/l	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	BRL	100 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*93.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99.8*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*117*	*70-130 %*		"	"	"	"	"	
Microextractable Organic Compounds										
106-93-4	1,2-Dibromoethane (EDB)	BRL	0.0100 µg/l	1	EPA 504.1	30-Sep-05	03-Oct-05	5092098	SM	
Extractable Petroleum Hydrocarbons										
	Non-polar material (SGT-HEM)	BRL	1.0 mg/l	1	EPA 1664	03-Oct-05	04-Oct-05	5100078	JK	
Semivolatile Organic Compounds by GC										
Polychlorinated Biphenyls by EPA 608			Prepared by method	SW846 3535						
12674-11-2	PCB 1016	BRL	0.229 µg/l	1	EPA 608	03-Oct-05	03-Oct-05	5100024	MP	
11104-28-2	PCB 1221	BRL	0.229 µg/l	1	"	"	"	"	"	
11141-16-5	PCB 1232	BRL	0.229 µg/l	1	"	"	"	"	"	
53469-21-9	PCB 1242	BRL	0.229 µg/l	1	"	"	"	"	"	
12672-29-6	PCB 1248	BRL	0.229 µg/l	1	"	"	"	"	"	
11097-69-1	PCB 1254	BRL	0.229 µg/l	1	"	"	"	"	"	
11096-82-5	PCB 1260	BRL	0.229 µg/l	1	"	"	"	"	"	
37324-23-5	PCB 1262	BRL	0.229 µg/l	1	"	"	"	"	"	
11100-14-4	PCB 1268	BRL	0.229 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Inf	4600-01-12	Ground Water	27-Sep-05 09:30	27-Sep-05
SA34814-01				

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Semivolatile Organic Compounds by GC										
Polychlorinated Biphenyls by EPA 608			Prepared by method	SW846 3535						
Surrogate recoveries:										
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*65.1*	*30-150 %*		EPA 608	03-Oct-05	03-Oct-05	5100024	MP	
2051-24-3	*Decachlorobiphenyl (Sr)*	*130*	*30-150 %*		"	"	"	"	"	
Semivolatile Organic Compounds by GCMS										
Semivolatile Organic Compounds by EPA 625			Prepared by method	SW846 3535						
83-32-9	Acenaphthene	BRL	1.00 µg/l	1	EPA 625	30-Sep-05	04-Oct-05	5092095		
208-96-8	Acenaphthylene	BRL	5.00 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	BRL	5.00 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.00 µg/l	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	BRL	5.00 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.00 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.00 µg/l	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL	5.00 µg/l	1	"	"	"	"	"	
117-81-7	Bis(2-ethylhexyl)phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
85-68-7	Butyl benzyl phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
59-50-7	4-Chloro-3-methylphenol	BRL	1.00 µg/l	1	"	"	"	"	"	
95-57-8	2-Chlorophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.00 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.00 µg/l	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	BRL	2.00 µg/l	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	BRL	2.00 µg/l	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	BRL	2.00 µg/l	1	"	"	"	"	"	
120-83-2	2,4-Dichlorophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
84-66-2	Diethyl phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
131-11-3	Dimethyl phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
105-67-9	2,4-Dimethylphenol	BRL	1.00 µg/l	1	"	"	"	"	"	
84-74-2	Di-n-butyl phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
534-52-1	4,6-Dinitro-2-methylphenol	BRL	1.00 µg/l	1	"	"	"	"	"	
51-28-5	2,4-Dinitrophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
117-84-0	Di-n-octyl phthalate	BRL	5.00 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	1.00 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	BRL	5.00 µg/l	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.00 µg/l	1	"	"	"	"	"	
78-59-1	Isophorone	BRL	5.00 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	BRL	5.00 µg/l	1	"	"	"	"	"	
95-48-7	2-Methylphenol	BRL	1.00 µg/l	1	"	"	"	"	"	
108-39-4,106-4	3,4-Methylphenol	BRL	1.00 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	2.00 µg/l	1	"	"	"	"	"	
88-75-5	2-Nitrophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
100-02-7	4-Nitrophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
87-86-5	Pentachlorophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	BRL	5.00 µg/l	1	"	"	"	"	"	
108-95-2	Phenol	BRL	1.00 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	BRL	5.00 µg/l	1	"	"	"	"	"	
110-86-1	Pyridine	BRL	5.00 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Inf SA34814-01	4600-01-12	Ground Water	27-Sep-05 09:30	27-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Semivolatile Organic Compounds by GCMS										
Semivolatile Organic Compounds by EPA 625			Prepared by method	SW846 3535						
95-95-4	2,4,5-Trichlorophenol	BRL	1.00 µg/l	1	EPA 625	30-Sep-05	04-Oct-05	5092095		
88-06-2	2,4,6-Trichlorophenol	BRL	1.00 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
321-60-8	*2-Fluorobiphenyl*	*44.0*	*30-130 %*		"	"	"	"	"	
367-12-4	*2-Fluorophenol*	*43.5*	*15-110 %*		"	"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*47.0*	*30-130 %*		"	"	"	"	"	
4165-62-2	*Phenol-d5*	*40.8*	*15-110 %*		"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*48.2*	*30-130 %*		"	"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*39.2*	*15-110 %*		"	"	"	"	"	
Total Metals by EPA 200 Series Methods										
7440-22-4	Silver	BRL	0.0050 mg/l	1	EPA 200.7	01-Oct-05	03-Oct-05	5100007	RE	
7440-38-2	Arsenic	BRL	0.0040 mg/l	1	"	"	"	"	"	
7440-43-9	Cadmium	BRL	0.0012 mg/l	1	"	"	"	"	"	
7440-47-3	Chromium	BRL	0.0025 mg/l	1	"	"	"	"	"	
7440-50-8	Copper	0.0816	0.0025 mg/l	1	"	"	"	"	"	
7439-89-6	Iron	11.4	0.0025 mg/l	1	"	"	"	"	"	
7439-97-6	Mercury	BRL	0.00020 mg/l	1	EPA 245.2/7470A	"	04-Oct-05	5100008	YP	
7440-02-0	Nickel	0.124	0.0025 mg/l	1	EPA 200.7	"	03-Oct-05	5100007	RE	
7439-92-1	Lead	BRL	0.0038 mg/l	1	"	"	"	"	"	
7440-36-0	Antimony	BRL	0.0060 mg/l	1	"	"	"	"	"	
7782-49-2	Selenium	BRL	0.0075 mg/l	1	"	"	"	"	"	
7440-66-6	Zinc	0.694	0.0025 mg/l	1	"	"	"	"	"	
General Chemistry Parameters										
1854-029-9	Hexavalent Chromium	BRL	0.005 mg/l	1	SM3500CrD/7196A	28-Sep-05 09:00	28-Sep-05	5091967	ES	
57-12-5	Cyanide (total)	BRL	0.0100 mg/l	1	10-204-00-1-A / SW-846 9012A	"	"	5092024	JAK	
7782-50-5	Total Residual Chlorine	BRL	0.020 mg/l	1	Hach 8167	27-Sep-05 18:15	27-Sep-05	5091898	ES	
	Total Suspended Solids	24.0	5.00 mg/l	1	SM2540D	29-Sep-05	30-Sep-05	5092079	EK	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100149 - SW846 5030 Water MS										
Blank (5100149-BLK1)				Prepared & Analyzed: 04-Oct-05						
Acetone	BRL	10.0	µg/l							
Benzene	BRL	0.5	µg/l							
Carbon tetrachloride	BRL	0.5	µg/l							
1,2-Dichlorobenzene	BRL	0.5	µg/l							
1,3-Dichlorobenzene	BRL	0.5	µg/l							
1,4-Dichlorobenzene	BRL	0.5	µg/l							
1,1-Dichloroethane	BRL	0.5	µg/l							
1,2-Dichloroethane	BRL	0.5	µg/l							
1,1-Dichloroethene	BRL	0.5	µg/l							
cis-1,2-Dichloroethene	BRL	0.5	µg/l							
Ethylbenzene	BRL	0.5	µg/l							
Methyl tert-butyl ether	BRL	0.5	µg/l							
Methylene chloride	1.2	0.5	µg/l							VOC3
Naphthalene	BRL	1.0	µg/l							
Tetrachloroethene	BRL	0.5	µg/l							
Toluene	BRL	0.5	µg/l							
1,1,1-Trichloroethane	BRL	0.5	µg/l							
1,1,2-Trichloroethane	BRL	0.5	µg/l							
Trichloroethene	BRL	0.5	µg/l							
Vinyl chloride	BRL	0.5	µg/l							
m,p-Xylene	BRL	1.0	µg/l							
o-Xylene	BRL	0.5	µg/l							
Tert-amyl methyl ether	BRL	0.5	µg/l							
Tert-Butanol / butyl alcohol	BRL	10.0	µg/l							
1,4-Dioxane	BRL	20.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*51.8*		µg/l	*50.0*		*104*	*70-130*			
Surrogate: Toluene-d8	*44.6*		µg/l	*50.0*		*89.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*42.9*		µg/l	*50.0*		*85.8*	*70-130*			
Surrogate: Dibromofluoromethane	*52.4*		µg/l	*50.0*		*105*	*70-130*			
LCS (5100149-BS1)				Prepared & Analyzed: 04-Oct-05						
Acetone	15.0		µg/l	20.0		75.0	2.17-194			
Acrylonitrile	17.3		µg/l	20.0		86.5	70-130			
Benzene	17.4		µg/l	20.0		87.0	70-130			
Bromobenzene	18.1		µg/l	20.0		90.5	70-130			
Bromochloromethane	24.4		µg/l	20.0		122	70-130			
Bromodichloromethane	17.3		µg/l	20.0		86.5	70-130			
Bromoform	12.2		µg/l	20.0		61.0	70-130			QC-2
Bromomethane	16.5		µg/l	20.0		82.5	61.9-145			
2-Butanone (MEK)	15.4		µg/l	20.0		77.0	14.9-165			
n-Butylbenzene	21.6		µg/l	20.0		108	70-130			
sec-Butylbenzene	19.9		µg/l	20.0		99.5	70-130			
tert-Butylbenzene	18.0		µg/l	20.0		90.0	70-130			
Carbon disulfide	20.6		µg/l	20.0		103	70-130			
Carbon tetrachloride	9.3		µg/l	20.0		46.5	70-130			QC-2
Chlorobenzene	19.6		µg/l	20.0		98.0	70-130			
Chloroethane	20.7		µg/l	20.0		104	64.4-134			
Chloroform	20.6		µg/l	20.0		103	70-130			
Chloromethane	27.0		µg/l	20.0		135	70-130			QC-2
2-Chlorotoluene	19.8		µg/l	20.0		99.0	70-130			
4-Chlorotoluene	20.2		µg/l	20.0		101	70-130			
1,2-Dibromo-3-chloropropane	12.0		µg/l	20.0		60.0	70-130			QC-2
Dibromochloromethane	9.6		µg/l	20.0		48.0	45.3-146			
1,2-Dibromoethane (EDB)	13.0		µg/l	20.0		65.0	70-130			QC-1
Dibromomethane	17.2		µg/l	20.0		86.0	70-130			

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100149 - SW846 5030 Water MS										
LCS (5100149-BS1)				Prepared & Analyzed: 04-Oct-05						
1,2-Dichlorobenzene	18.3		µg/l	20.0		91.5	70-130			
1,3-Dichlorobenzene	20.6		µg/l	20.0		103	70-130			
1,4-Dichlorobenzene	18.5		µg/l	20.0		92.5	70-130			
Dichlorodifluoromethane (Freon12)	37.7		µg/l	20.0		188	49.6-201			
1,1-Dichloroethane	19.3		µg/l	20.0		96.5	70-130			
1,2-Dichloroethane	18.3		µg/l	20.0		91.5	70-130			
1,1-Dichloroethene	19.9		µg/l	20.0		99.5	70-130			
cis-1,2-Dichloroethene	25.1		µg/l	20.0		126	70-130			
trans-1,2-Dichloroethene	19.4		µg/l	20.0		97.0	70-130			
1,2-Dichloropropane	17.6		µg/l	20.0		88.0	70-130			
1,3-Dichloropropane	16.1		µg/l	20.0		80.5	70-130			
2,2-Dichloropropane	15.2		µg/l	20.0		76.0	70-130			
1,1-Dichloropropene	19.1		µg/l	20.0		95.5	70-130			
cis-1,3-Dichloropropene	14.8		µg/l	20.0		74.0	70-130			
trans-1,3-Dichloropropene	10.5		µg/l	20.0		52.5	70-130			QC-2
Ethylbenzene	18.2		µg/l	20.0		91.0	70-130			
Hexachlorobutadiene	18.3		µg/l	20.0		91.5	68.6-137			
2-Hexanone (MBK)	11.3		µg/l	20.0		56.5	70-130			QC-2
Isopropylbenzene	16.8		µg/l	20.0		84.0	70-130			
4-Isopropyltoluene	19.9		µg/l	20.0		99.5	70-130			
Methyl tert-butyl ether	15.7		µg/l	20.0		78.5	70-130			
4-Methyl-2-pentanone (MIBK)	14.3		µg/l	20.0		71.5	48.6-137			
Methylene chloride	20.9		µg/l	20.0		104	70-130			
Naphthalene	21.0		µg/l	20.0		105	70-130			
n-Propylbenzene	19.5		µg/l	20.0		97.5	70-130			
Styrene	18.4		µg/l	20.0		92.0	70-130			
1,1,1,2-Tetrachloroethane	15.7		µg/l	20.0		78.5	70-130			
1,1,2,2-Tetrachloroethane	20.1		µg/l	20.0		100	70-130			
Tetrachloroethene	18.8		µg/l	20.0		94.0	70-130			
Toluene	18.0		µg/l	20.0		90.0	70-130			
1,2,3-Trichlorobenzene	20.1		µg/l	20.0		100	70-130			
1,2,4-Trichlorobenzene	20.1		µg/l	20.0		100	70-130			
1,1,1-Trichloroethane	14.9		µg/l	20.0		74.5	70-130			
1,1,2-Trichloroethane	18.8		µg/l	20.0		94.0	70-130			
Trichloroethene	18.4		µg/l	20.0		92.0	70-130			
Trichlorofluoromethane (Freon 11)	22.2		µg/l	20.0		111	67.9-143			
1,2,3-Trichloropropane	19.3		µg/l	20.0		96.5	70-130			
1,2,4-Trimethylbenzene	22.4		µg/l	20.0		112	70-130			
1,3,5-Trimethylbenzene	21.9		µg/l	20.0		110	70-130			
Vinyl chloride	22.3		µg/l	20.0		112	70-130			
m,p-Xylene	36.3		µg/l	40.0		90.8	70-130			
o-Xylene	19.6		µg/l	20.0		98.0	70-130			
Tetrahydrofuran	15.4		µg/l	20.0		77.0	70-130			
Ethyl ether	19.2		µg/l	20.0		96.0	70-136			
Tert-amyl methyl ether	16.3		µg/l	20.0		81.5	70-130			
Ethyl tert-butyl ether	15.9		µg/l	20.0		79.5	70-130			
Di-isopropyl ether	15.8		µg/l	20.0		79.0	70-130			
Tert-Butanol / butyl alcohol	159		µg/l	200		79.5	70-130			
1,4-Dioxane	157		µg/l	200		78.5	36.5-156			
Surrogate: 4-Bromofluorobenzene	*51.2*		µg/l	*50.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*38.3*		µg/l	*50.0*		*76.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*46.1*		µg/l	*50.0*		*92.2*	*70-130*			
Surrogate: Dibromofluoromethane	*53.8*		µg/l	*50.0*		*108*	*70-130*			
LCS Dup (5100149-BSD1)				Prepared & Analyzed: 04-Oct-05						

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100149 - SW846 5030 Water MS										
LCS Dup (5100149-BSD1)				Prepared & Analyzed: 04-Oct-05						
Acetone	14.6		µg/l	20.0		73.0	2.17-194	2.70	50	
Acrylonitrile	17.6		µg/l	20.0		88.0	70-130	1.72	25	
Benzene	16.4		µg/l	20.0		82.0	70-130	5.92	25	
Bromobenzene	19.0		µg/l	20.0		95.0	70-130	4.85	25	
Bromochloromethane	24.5		µg/l	20.0		122	70-130	0.00	25	
Bromodichloromethane	17.5		µg/l	20.0		87.5	70-130	1.15	25	
Bromoform	12.7		µg/l	20.0		63.5	70-130	4.02	25	QC-2
Bromomethane	15.0		µg/l	20.0		75.0	61.9-145	9.52	50	
2-Butanone (MEK)	15.8		µg/l	20.0		79.0	14.9-165	2.56	50	
n-Butylbenzene	24.3		µg/l	20.0		122	70-130	12.2	25	
sec-Butylbenzene	20.4		µg/l	20.0		102	70-130	2.48	25	
tert-Butylbenzene	18.7		µg/l	20.0		93.5	70-130	3.81	25	
Carbon disulfide	19.9		µg/l	20.0		99.5	70-130	3.46	25	
Carbon tetrachloride	9.0		µg/l	20.0		45.0	70-130	3.28	25	QC-2
Chlorobenzene	19.8		µg/l	20.0		99.0	70-130	1.02	25	
Chloroethane	19.9		µg/l	20.0		99.5	64.4-134	4.42	50	
Chloroform	20.6		µg/l	20.0		103	70-130	0.00	25	
Chloromethane	25.9		µg/l	20.0		130	70-130	3.77	25	QC-2
2-Chlorotoluene	20.7		µg/l	20.0		104	70-130	4.93	25	
4-Chlorotoluene	21.1		µg/l	20.0		106	70-130	4.83	25	
1,2-Dibromo-3-chloropropane	12.5		µg/l	20.0		62.5	70-130	4.08	25	QC-2
Dibromochloromethane	9.4		µg/l	20.0		47.0	45.3-146	2.11	50	
1,2-Dibromoethane (EDB)	14.0		µg/l	20.0		70.0	70-130	7.41	25	
Dibromomethane	17.3		µg/l	20.0		86.5	70-130	0.580	25	
1,2-Dichlorobenzene	20.4		µg/l	20.0		102	70-130	10.9	25	
1,3-Dichlorobenzene	21.4		µg/l	20.0		107	70-130	3.81	25	
1,4-Dichlorobenzene	20.4		µg/l	20.0		102	70-130	9.77	25	
Dichlorodifluoromethane (Freon12)	35.6		µg/l	20.0		178	49.6-201	5.46	50	
1,1-Dichloroethane	19.0		µg/l	20.0		95.0	70-130	1.57	25	
1,2-Dichloroethane	18.2		µg/l	20.0		91.0	70-130	0.548	25	
1,1-Dichloroethene	19.0		µg/l	20.0		95.0	70-130	4.63	25	
cis-1,2-Dichloroethene	25.2		µg/l	20.0		126	70-130	0.00	25	
trans-1,2-Dichloroethene	19.1		µg/l	20.0		95.5	70-130	1.56	25	
1,2-Dichloropropane	16.6		µg/l	20.0		83.0	70-130	5.85	25	
1,3-Dichloropropane	16.2		µg/l	20.0		81.0	70-130	0.619	25	
2,2-Dichloropropane	14.8		µg/l	20.0		74.0	70-130	2.67	25	
1,1-Dichloropropene	18.0		µg/l	20.0		90.0	70-130	5.93	25	
cis-1,3-Dichloropropene	14.6		µg/l	20.0		73.0	70-130	1.36	25	
trans-1,3-Dichloropropene	10.8		µg/l	20.0		54.0	70-130	2.82	25	QC-2
Ethylbenzene	18.6		µg/l	20.0		93.0	70-130	2.17	25	
Hexachlorobutadiene	21.6		µg/l	20.0		108	68.6-137	16.5	50	
2-Hexanone (MBK)	10.6		µg/l	20.0		53.0	70-130	6.39	25	QC-2
Isopropylbenzene	17.4		µg/l	20.0		87.0	70-130	3.51	25	
4-Isopropyltoluene	21.7		µg/l	20.0		108	70-130	8.19	25	
Methyl tert-butyl ether	15.2		µg/l	20.0		76.0	70-130	3.24	25	
4-Methyl-2-pentanone (MIBK)	14.6		µg/l	20.0		73.0	48.6-137	2.08	50	
Methylene chloride	20.0		µg/l	20.0		100	70-130	3.92	25	
Naphthalene	23.2		µg/l	20.0		116	70-130	9.95	25	
n-Propylbenzene	19.8		µg/l	20.0		99.0	70-130	1.53	25	
Styrene	20.7		µg/l	20.0		104	70-130	12.2	25	
1,1,1,2-Tetrachloroethane	16.2		µg/l	20.0		81.0	70-130	3.13	25	
1,1,2,2-Tetrachloroethane	21.0		µg/l	20.0		105	70-130	4.88	25	
Tetrachloroethene	18.0		µg/l	20.0		90.0	70-130	4.35	25	
Toluene	16.9		µg/l	20.0		84.5	70-130	6.30	25	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100149 - SW846 5030 Water MS										
LCS Dup (5100149-BSD1)				Prepared & Analyzed: 04-Oct-05						
1,2,3-Trichlorobenzene	22.4		µg/l	20.0		112	70-130	11.3	25	
1,2,4-Trichlorobenzene	22.9		µg/l	20.0		114	70-130	13.1	25	
1,1,1-Trichloroethane	14.9		µg/l	20.0		74.5	70-130	0.00	25	
1,1,2-Trichloroethane	18.1		µg/l	20.0		90.5	70-130	3.79	25	
Trichloroethene	17.4		µg/l	20.0		87.0	70-130	5.59	25	
Trichlorofluoromethane (Freon 11)	21.0		µg/l	20.0		105	67.9-143	5.56	50	
1,2,3-Trichloropropane	20.4		µg/l	20.0		102	70-130	5.54	25	
1,2,4-Trimethylbenzene	23.3		µg/l	20.0		116	70-130	3.51	25	
1,3,5-Trimethylbenzene	23.0		µg/l	20.0		115	70-130	4.44	25	
Vinyl chloride	21.5		µg/l	20.0		108	70-130	3.64	25	
m,p-Xylene	37.6		µg/l	40.0		94.0	70-130	3.46	25	
o-Xylene	20.7		µg/l	20.0		104	70-130	5.94	25	
Tetrahydrofuran	15.4		µg/l	20.0		77.0	70-130	0.00	25	
Ethyl ether	18.9		µg/l	20.0		94.5	70-136	1.57	50	
Tert-amyl methyl ether	15.6		µg/l	20.0		78.0	70-130	4.39	25	
Ethyl tert-butyl ether	15.4		µg/l	20.0		77.0	70-130	3.19	25	
Di-isopropyl ether	14.5		µg/l	20.0		72.5	70-130	8.58	25	
Tert-Butanol / butyl alcohol	153		µg/l	200		76.5	70-130	3.85	25	
1,4-Dioxane	148		µg/l	200		74.0	36.5-156	5.90	25	
Surrogate: 4-Bromofluorobenzene	*48.6*		µg/l	*50.0*		*97.2*	*70-130*			
Surrogate: Toluene-d8	*42.6*		µg/l	*50.0*		*85.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*46.5*		µg/l	*50.0*		*93.0*	*70-130*			
Surrogate: Dibromofluoromethane	*53.3*		µg/l	*50.0*		*107*	*70-130*			

Microextractable Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092098 - Microextr. by 504.1										
Blank (5092098-BLK1)				Prepared: 30-Sep-05 Analyzed: 03-Oct-05						
1,2-Dibromoethane (EDB)	BRL	0.0100	µg/l							
LCS (5092098-BS1)				Prepared: 30-Sep-05 Analyzed: 03-Oct-05						
1,2-Dibromoethane (EDB)	0.170	0.0100	µg/l	0.200		85.0	50-150			
Duplicate (5092098-DUP1)	**Source: SA34731-01**			Prepared: 30-Sep-05 Analyzed: 03-Oct-05						
1,2-Dibromoethane (EDB)	BRL	0.0100	µg/l		BRL				30	

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100078 - SW846 3510C										
Blank (5100078-BLK1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
Non-polar material (SGT-HEM)	BRL	1.0	mg/l							
LCS (5100078-BS1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
Non-polar material (SGT-HEM)	27.3		mg/l	33.0		82.7	0-200			

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100024 - SW846 3535										
Blank (5100024-BLK1)				Prepared & Analyzed: 03-Oct-05						
PCB 1016	BRL	0.200	µg/l							
PCB 1221	BRL	0.200	µg/l							
PCB 1232	BRL	0.200	µg/l							
PCB 1242	BRL	0.200	µg/l							
PCB 1248	BRL	0.200	µg/l							
PCB 1254	BRL	0.200	µg/l							
PCB 1260	BRL	0.200	µg/l							
PCB 1262	BRL	0.200	µg/l							
PCB 1268	BRL	0.200	µg/l							
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.140*		µg/l	*0.200*		*70.0*	*30-150*			
Surrogate: Decachlorobiphenyl (Sr)	*0.260*		µg/l	*0.200*		*130*	*30-150*			
LCS (5100024-BS1)				Prepared & Analyzed: 03-Oct-05						
PCB 1016	2.38	0.200	µg/l	2.50		95.2	40-140			
PCB 1260	2.63	0.200	µg/l	2.50		105	40-140			
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.140*		µg/l	*0.200*		*70.0*	*30-150*			
Surrogate: Decachlorobiphenyl (Sr)	*0.230*		µg/l	*0.200*		*115*	*30-150*			

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092095 - SW846 3535										
Blank (5092095-BLK1)				Prepared & Analyzed: 30-Sep-05						
Acenaphthene	BRL	5.00	µg/l							
Acenaphthylene	BRL	5.00	µg/l							
Aniline	BRL	5.00	µg/l							
Anthracene	BRL	5.00	µg/l							
Azobenzene/Diphenyldiazine	BRL	5.00	µg/l							
Benzidine	BRL	5.00	µg/l							
Benzo (a) anthracene	BRL	5.00	µg/l							
Benzo (a) pyrene	BRL	5.00	µg/l							
Benzo (b) fluoranthene	BRL	5.00	µg/l							
Benzo (g,h,i) perylene	BRL	5.00	µg/l							
Benzo (k) fluoranthene	BRL	5.00	µg/l							
Benzoic acid	BRL	5.00	µg/l							
Benzyl alcohol	BRL	5.00	µg/l							
Bis(2-chloroethoxy)methane	BRL	5.00	µg/l							
Bis(2-chloroethyl)ether	BRL	5.00	µg/l							
Bis(2-chloroisopropyl)ether	BRL	5.00	µg/l							
Bis(2-ethylhexyl)phthalate	BRL	5.00	µg/l							
4-Bromophenyl phenyl ether	BRL	5.00	µg/l							
Butyl benzyl phthalate	BRL	5.00	µg/l							
Carbazole	BRL	5.00	µg/l							
4-Chloro-3-methylphenol	BRL	5.00	µg/l							
4-Chloroaniline	BRL	5.00	µg/l							
2-Chloronaphthalene	BRL	5.00	µg/l							
2-Chlorophenol	BRL	5.00	µg/l							
4-Chlorophenyl phenyl ether	BRL	5.00	µg/l							
Chrysene	BRL	5.00	µg/l							
Dibenzo (a,h) anthracene	BRL	5.00	µg/l							
Dibenzofuran	BRL	5.00	µg/l							
1,2-Dichlorobenzene	BRL	5.00	µg/l							
1,3-Dichlorobenzene	BRL	5.00	µg/l							
1,4-Dichlorobenzene	BRL	5.00	µg/l							
3,3'-Dichlorobenzidine	BRL	5.00	µg/l							
2,4-Dichlorophenol	BRL	5.00	µg/l							
Diethyl phthalate	BRL	5.00	µg/l							
Dimethyl phthalate	BRL	5.00	µg/l							
2,4-Dimethylphenol	BRL	5.00	µg/l							
Di-n-butyl phthalate	BRL	5.00	µg/l							
4,6-Dinitro-2-methylphenol	BRL	5.00	µg/l							
2,4-Dinitrophenol	BRL	5.00	µg/l							
2,4-Dinitrotoluene	BRL	5.00	µg/l							
2,6-Dinitrotoluene	BRL	5.00	µg/l							
Di-n-octyl phthalate	BRL	5.00	µg/l							
Fluoranthene	BRL	5.00	µg/l							
Fluorene	BRL	5.00	µg/l							
Hexachlorobenzene	BRL	5.00	µg/l							
Hexachlorobutadiene	BRL	5.00	µg/l							
Hexachlorocyclopentadiene	BRL	5.00	µg/l							
Hexachloroethane	BRL	5.00	µg/l							
Indeno (1,2,3-cd) pyrene	BRL	5.00	µg/l							
Isophorone	BRL	5.00	µg/l							
2-Methylnaphthalene	BRL	5.00	µg/l							
2-Methylphenol	BRL	5.00	µg/l							
3,4-Methylphenol	BRL	10.0	µg/l							
Naphthalene	BRL	5.00	µg/l							

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092095 - SW846 3535										
Blank (5092095-BLK1)				Prepared & Analyzed: 30-Sep-05						
2-Nitroaniline	BRL	5.00	µg/l							
3-Nitroaniline	BRL	5.00	µg/l							
4-Nitroaniline	BRL	5.00	µg/l							
Nitrobenzene	BRL	5.00	µg/l							
2-Nitrophenol	BRL	5.00	µg/l							
4-Nitrophenol	BRL	5.00	µg/l							
N-Nitrosodimethylamine	BRL	5.00	µg/l							
N-Nitrosodi-n-propylamine	BRL	5.00	µg/l							
N-Nitrosodiphenylamine	BRL	5.00	µg/l							
Pentachlorophenol	BRL	5.00	µg/l							
Phenanthrene	BRL	5.00	µg/l							
Phenol	BRL	5.00	µg/l							
Pyrene	BRL	5.00	µg/l							
Pyridine	BRL	5.00	µg/l							
1,2,4-Trichlorobenzene	BRL	5.00	µg/l							
2,4,5-Trichlorophenol	BRL	5.00	µg/l							
2,4,6-Trichlorophenol	BRL	5.00	µg/l							
Surrogate: 2-Fluorobiphenyl	*55.1*		µg/l	*100*		*55.1*	*30-130*			
Surrogate: 2-Fluorophenol	*65.1*		µg/l	*100*		*65.1*	*15-110*			
Surrogate: Nitrobenzene-d5	*40.7*		µg/l	*100*		*40.7*	*30-130*			
Surrogate: Phenol-d5	*49.7*		µg/l	*100*		*49.7*	*15-110*			
Surrogate: Terphenyl-dl4	*72.2*		µg/l	*100*		*72.2*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*48.3*		µg/l	*100*		*48.3*	*15-110*			
LCS (5092095-BS1)				Prepared & Analyzed: 30-Sep-05						
Acenaphthene	57.4	5.00	µg/l	100		57.4	40-140			
Acenaphthylene	66.0	5.00	µg/l	100		66.0	40-140			
Aniline	65.5	5.00	µg/l	100		65.5	40-140			
Anthracene	68.9	5.00	µg/l	100		68.9	40-140			
Azobenzene/Diphenyldiazine	49.7	5.00	µg/l	100		49.7	40-140			
Benzidine	233	5.00	µg/l	100		233	40-140			QC-2
Benzo (a) anthracene	62.5	5.00	µg/l	100		62.5	40-140			
Benzo (a) pyrene	64.7	5.00	µg/l	100		64.7	40-140			
Benzo (b) fluoranthene	57.4	5.00	µg/l	100		57.4	40-140			
Benzo (g,h,i) perylene	47.6	5.00	µg/l	100		47.6	40-140			
Benzo (k) fluoranthene	63.5	5.00	µg/l	100		63.5	40-140			
Benzoic acid	30.3	5.00	µg/l	100		30.3	30-130			
Benzyl alcohol	53.7	5.00	µg/l	100		53.7	40-140			
Bis(2-chloroethoxy)methane	50.1	5.00	µg/l	100		50.1	40-140			
Bis(2-chloroethyl)ether	44.5	5.00	µg/l	100		44.5	40-140			
Bis(2-chloroisopropyl)ether	73.2	5.00	µg/l	100		73.2	40-140			
Bis(2-ethylhexyl)phthalate	63.7	5.00	µg/l	100		63.7	40-140			
4-Bromophenyl phenyl ether	61.8	5.00	µg/l	100		61.8	40-140			
Butyl benzyl phthalate	62.1	5.00	µg/l	100		62.1	40-140			
Carbazole	64.2	5.00	µg/l	100		64.2	0-200			
4-Chloro-3-methylphenol	63.9	5.00	µg/l	100		63.9	30-130			
4-Chloroaniline	60.0	5.00	µg/l	100		60.0	40-140			
2-Chloronaphthalene	54.8	5.00	µg/l	100		54.8	40-140			
2-Chlorophenol	59.3	5.00	µg/l	100		59.3	30-130			
4-Chlorophenyl phenyl ether	59.0	5.00	µg/l	100		59.0	40-140			
Chrysene	61.0	5.00	µg/l	100		61.0	40-140			
Dibenzo (a,h) anthracene	47.2	5.00	µg/l	100		47.2	40-140			
Dibenzofuran	60.7	5.00	µg/l	100		60.7	40-140			
1,2-Dichlorobenzene	56.3	5.00	µg/l	100		56.3	40-140			
1,3-Dichlorobenzene	56.2	5.00	µg/l	100		56.2	40-140			

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092095 - SW846 3535										
LCS (5092095-BS1)				Prepared & Analyzed: 30-Sep-05						
1,4-Dichlorobenzene	54.6	5.00	µg/l	100		54.6	40-140			
3,3'-Dichlorobenzidine	59.2	5.00	µg/l	100		59.2	40-140			
2,4-Dichlorophenol	57.1	5.00	µg/l	100		57.1	30-130			
Diethyl phthalate	67.0	5.00	µg/l	100		67.0	40-140			
Dimethyl phthalate	66.1	5.00	µg/l	100		66.1	40-140			
2,4-Dimethylphenol	56.4	5.00	µg/l	100		56.4	30-130			
Di-n-butyl phthalate	76.3	5.00	µg/l	100		76.3	40-140			
4,6-Dinitro-2-methylphenol	52.9	5.00	µg/l	100		52.9	30-130			
2,4-Dinitrophenol	47.5	5.00	µg/l	100		47.5	30-130			
2,4-Dinitrotoluene	75.9	5.00	µg/l	100		75.9	40-140			
2,6-Dinitrotoluene	69.0	5.00	µg/l	100		69.0	40-140			
Di-n-octyl phthalate	69.8	5.00	µg/l	100		69.8	40-140			
Fluoranthene	68.1	5.00	µg/l	100		68.1	40-140			
Fluorene	60.8	5.00	µg/l	100		60.8	40-140			
Hexachlorobenzene	61.9	5.00	µg/l	100		61.9	40-140			
Hexachlorobutadiene	52.2	5.00	µg/l	100		52.2	40-140			
Hexachlorocyclopentadiene	49.6	5.00	µg/l	100		49.6	40-140			
Hexachloroethane	53.4	5.00	µg/l	100		53.4	40-140			
Indeno (1,2,3-cd) pyrene	48.7	5.00	µg/l	100		48.7	40-140			
Isophorone	55.2	5.00	µg/l	100		55.2	40-140			
2-Methylnaphthalene	58.0	5.00	µg/l	100		58.0	40-140			
2-Methylphenol	55.1	5.00	µg/l	100		55.1	40-140			
3,4-Methylphenol	61.2	10.0	µg/l	100		61.2	40-140			
Naphthalene	58.3	5.00	µg/l	100		58.3	40-140			
2-Nitroaniline	64.3	5.00	µg/l	100		64.3	40-140			
3-Nitroaniline	59.3	5.00	µg/l	100		59.3	40-140			
4-Nitroaniline	69.7	5.00	µg/l	100		69.7	40-140			
Nitrobenzene	46.0	5.00	µg/l	100		46.0	40-140			
2-Nitrophenol	54.5	5.00	µg/l	100		54.5	30-130			
4-Nitrophenol	53.6	5.00	µg/l	100		53.6	30-130			
N-Nitrosodimethylamine	47.7	5.00	µg/l	100		47.7	40-140			
N-Nitrosodi-n-propylamine	47.7	5.00	µg/l	100		47.7	40-140			
N-Nitrosodiphenylamine	59.6	5.00	µg/l	100		59.6	40-140			
Pentachlorophenol	54.2	5.00	µg/l	100		54.2	30-130			
Phenanthrene	61.8	5.00	µg/l	100		61.8	40-140			
Phenol	47.4	5.00	µg/l	100		47.4	30-130			
Pyrene	59.9	5.00	µg/l	100		59.9	40-140			
Pyridine	49.9	5.00	µg/l	100		49.9	40-140			
1,2,4-Trichlorobenzene	52.2	5.00	µg/l	100		52.2	40-140			
2,4,5-Trichlorophenol	60.6	5.00	µg/l	100		60.6	30-130			
2,4,6-Trichlorophenol	52.7	5.00	µg/l	100		52.7	30-130			
Surrogate: 2-Fluorobiphenyl	*53.4*		µg/l	*100*		*53.4*	*30-130*			
Surrogate: 2-Fluorophenol	*46.6*		µg/l	*100*		*46.6*	*15-110*			
Surrogate: Nitrobenzene-d5	*43.6*		µg/l	*100*		*43.6*	*30-130*			
Surrogate: Phenol-d5	*42.1*		µg/l	*100*		*42.1*	*15-110*			
Surrogate: Terphenyl-dl4	*64.0*		µg/l	*100*		*64.0*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*64.4*		µg/l	*100*		*64.4*	*15-110*			
Duplicate (5092095-DUP1)		**Source: SA34830-04**		Prepared & Analyzed: 30-Sep-05						
Acenaphthene	BRL	5.00	µg/l		BRL				30	
Acenaphthylene	BRL	5.00	µg/l		BRL				30	
Aniline	BRL	5.00	µg/l		BRL				30	
Anthracene	BRL	5.00	µg/l		BRL				30	
Azobenzene/Diphenyldiazine	BRL	5.00	µg/l		BRL				30	
Benzidine	BRL	5.00	µg/l		BRL				30	

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092095 - SW846 3535										
Duplicate (5092095-DUP1)	**Source: SA34830-04**			Prepared & Analyzed: 30-Sep-05						
Benzo (a) anthracene	BRL	5.00	µg/l		BRL				30	
Benzo (a) pyrene	BRL	5.00	µg/l		BRL				30	
Benzo (b) fluoranthene	BRL	5.00	µg/l		BRL				30	
Benzo (g,h,i) perylene	BRL	5.00	µg/l		BRL				30	
Benzo (k) fluoranthene	BRL	5.00	µg/l		BRL				30	
Benzoic acid	BRL	5.00	µg/l		BRL				30	
Benzyl alcohol	BRL	5.00	µg/l		BRL				30	
Bis(2-chloroethoxy)methane	BRL	5.00	µg/l		BRL				30	
Bis(2-chloroethyl)ether	BRL	5.00	µg/l		BRL				30	
Bis(2-chloroisopropyl)ether	BRL	5.00	µg/l		BRL				30	
Bis(2-ethylhexyl)phthalate	BRL	5.00	µg/l		BRL				30	
4-Bromophenyl phenyl ether	BRL	5.00	µg/l		BRL				30	
Butyl benzyl phthalate	BRL	5.00	µg/l		BRL				30	
Carbazole	BRL	5.00	µg/l		BRL				30	
4-Chloro-3-methylphenol	BRL	5.00	µg/l		BRL				30	
4-Chloroaniline	BRL	5.00	µg/l		BRL				30	
2-Chloronaphthalene	BRL	5.00	µg/l		BRL				30	
2-Chlorophenol	BRL	5.00	µg/l		BRL				30	
4-Chlorophenyl phenyl ether	BRL	5.00	µg/l		BRL				30	
Chrysene	BRL	5.00	µg/l		BRL				30	
Dibenzo (a,h) anthracene	BRL	5.00	µg/l		BRL				30	
Dibenzofuran	BRL	5.00	µg/l		BRL				30	
1,2-Dichlorobenzene	BRL	5.00	µg/l		BRL				30	
1,3-Dichlorobenzene	BRL	5.00	µg/l		BRL				30	
1,4-Dichlorobenzene	BRL	5.00	µg/l		BRL				30	
3,3'-Dichlorobenzidine	BRL	5.00	µg/l		BRL				30	
2,4-Dichlorophenol	BRL	5.00	µg/l		BRL				30	
Diethyl phthalate	BRL	5.00	µg/l		BRL				30	
Dimethyl phthalate	BRL	5.00	µg/l		BRL				30	
2,4-Dimethylphenol	BRL	5.00	µg/l		BRL				30	
Di-n-butyl phthalate	BRL	5.00	µg/l		BRL				30	
4,6-Dinitro-2-methylphenol	BRL	5.00	µg/l		BRL				30	
2,4-Dinitrophenol	BRL	5.00	µg/l		BRL				30	
2,4-Dinitrotoluene	BRL	5.00	µg/l		BRL				30	
2,6-Dinitrotoluene	BRL	5.00	µg/l		BRL				30	
Di-n-octyl phthalate	BRL	5.00	µg/l		BRL				30	
Fluoranthene	BRL	5.00	µg/l		BRL				30	
Fluorene	BRL	5.00	µg/l		BRL				30	
Hexachlorobenzene	BRL	5.00	µg/l		BRL				30	
Hexachlorobutadiene	BRL	5.00	µg/l		BRL				30	
Hexachlorocyclopentadiene	BRL	5.00	µg/l		BRL				30	
Hexachloroethane	BRL	5.00	µg/l		BRL				30	
Indeno (1,2,3-cd) pyrene	BRL	5.00	µg/l		BRL				30	
Isophorone	BRL	5.00	µg/l		BRL				30	
2-Methylnaphthalene	BRL	5.00	µg/l		BRL				30	
2-Methylphenol	BRL	5.00	µg/l		BRL				30	
3,4-Methylphenol	BRL	10.0	µg/l		BRL				50	
Naphthalene	BRL	5.00	µg/l		BRL				30	
2-Nitroaniline	BRL	5.00	µg/l		BRL				30	
3-Nitroaniline	BRL	5.00	µg/l		BRL				30	
4-Nitroaniline	BRL	5.00	µg/l		BRL				30	
Nitrobenzene	BRL	5.00	µg/l		BRL				30	
2-Nitrophenol	BRL	5.00	µg/l		BRL				30	
4-Nitrophenol	BRL	5.00	µg/l		BRL				30	

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5092095 - SW846 3535										
Duplicate (5092095-DUP1)	**Source: SA34830-04**			Prepared & Analyzed: 30-Sep-05						
N-Nitrosodimethylamine	BRL	5.00	µg/l		BRL				30	
N-Nitrosodi-n-propylamine	BRL	5.00	µg/l		BRL				30	
N-Nitrosodiphenylamine	BRL	5.00	µg/l		BRL				30	
Pentachlorophenol	BRL	5.00	µg/l		BRL				30	
Phenanthrene	BRL	5.00	µg/l		BRL				30	
Phenol	BRL	5.00	µg/l		BRL				30	
Pyrene	BRL	5.00	µg/l		BRL				30	
Pyridine	BRL	5.00	µg/l		BRL				30	
1,2,4-Trichlorobenzene	BRL	5.00	µg/l		BRL				30	
2,4,5-Trichlorophenol	BRL	5.00	µg/l		BRL				30	
2,4,6-Trichlorophenol	BRL	5.00	µg/l		BRL				30	
Surrogate: 2-Fluorobiphenyl	*66.9*		µg/l	*105*		*63.7*	*30-130*			
Surrogate: 2-Fluorophenol	*78.1*		µg/l	*105*		*74.4*	*15-110*			
Surrogate: Nitrobenzene-d5	*57.2*		µg/l	*105*		*54.5*	*30-130*			
Surrogate: Phenol-d5	*54.5*		µg/l	*105*		*51.9*	*15-110*			
Surrogate: Terphenyl-dl4	*82.9*		µg/l	*105*		*79.0*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*55.3*		µg/l	*105*		*52.7*	*15-110*			
Matrix Spike (5092095-MS1)	**Source: SA34830-04**			Prepared & Analyzed: 30-Sep-05						
Acenaphthene	53.7	5.00	µg/l	105	BRL	51.1	40-140			
4-Chloro-3-methylphenol	121	5.00	µg/l	211	BRL	57.3	30-130			
2-Chlorophenol	107	5.00	µg/l	211	BRL	50.7	30-130			
1,4-Dichlorobenzene	53.3	5.00	µg/l	105	BRL	50.8	40-140			
2,4-Dinitrotoluene	61.4	5.00	µg/l	105	BRL	58.5	40-140			
4-Nitrophenol	97.3	5.00	µg/l	211	BRL	46.1	30-130			
N-Nitrosodi-n-propylamine	44.7	5.00	µg/l	105	BRL	42.6	40-140			
Pentachlorophenol	94.2	5.00	µg/l	211	BRL	44.6	30-130			
Phenol	99.1	5.00	µg/l	211	BRL	47.0	30-130			
Pyrene	57.4	5.00	µg/l	105	BRL	54.7	40-140			
1,2,4-Trichlorobenzene	46.9	5.00	µg/l	105	BRL	44.7	40-140			
Surrogate: 2-Fluorobiphenyl	*50.8*		µg/l	*105*		*48.4*	*30-130*			
Surrogate: 2-Fluorophenol	*43.6*		µg/l	*105*		*41.5*	*15-110*			
Surrogate: Nitrobenzene-d5	*42.3*		µg/l	*105*		*40.3*	*30-130*			
Surrogate: Phenol-d5	*39.6*		µg/l	*105*		*37.7*	*15-110*			
Surrogate: Terphenyl-dl4	*62.0*		µg/l	*105*		*59.0*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*56.2*		µg/l	*105*		*53.5*	*15-110*			
Matrix Spike Dup (5092095-MSD1)	**Source: SA34830-04**			Prepared & Analyzed: 30-Sep-05						
Acenaphthene	55.0	5.00	µg/l	105	BRL	52.4	40-140	2.51	200	
4-Chloro-3-methylphenol	123	5.00	µg/l	211	BRL	58.3	30-130	1.73	200	
2-Chlorophenol	111	5.00	µg/l	211	BRL	52.6	30-130	3.68	200	
1,4-Dichlorobenzene	55.7	5.00	µg/l	105	BRL	53.0	40-140	4.24	200	
2,4-Dinitrotoluene	62.0	5.00	µg/l	105	BRL	59.0	40-140	0.851	200	
4-Nitrophenol	102	5.00	µg/l	211	BRL	48.3	30-130	4.66	200	
N-Nitrosodi-n-propylamine	45.8	5.00	µg/l	105	BRL	43.6	40-140	2.32	200	
Pentachlorophenol	96.3	5.00	µg/l	211	BRL	45.6	30-130	2.22	200	
Phenol	93.5	5.00	µg/l	211	BRL	44.3	30-130	5.91	200	
Pyrene	57.3	5.00	µg/l	105	BRL	54.6	40-140	0.183	200	
1,2,4-Trichlorobenzene	49.5	5.00	µg/l	105	BRL	47.1	40-140	5.23	200	
Surrogate: 2-Fluorobiphenyl	*52.6*		µg/l	*105*		*50.1*	*30-130*			
Surrogate: 2-Fluorophenol	*45.4*		µg/l	*105*		*43.2*	*15-110*			
Surrogate: Nitrobenzene-d5	*37.7*		µg/l	*105*		*35.9*	*30-130*			
Surrogate: Phenol-d5	*40.3*		µg/l	*105*		*38.4*	*15-110*			
Surrogate: Terphenyl-dl4	*62.4*		µg/l	*105*		*59.4*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*58.2*		µg/l	*105*		*55.4*	*15-110*			

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100007 - EPA 200 Series										
Blank (5100007-BLK1)				Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Iron	0.0178	0.0025	mg/l							QB-01
Lead	BRL	0.0038	mg/l							
Antimony	BRL	0.0060	mg/l							
Selenium	BRL	0.0075	mg/l							
Zinc	BRL	0.0330	mg/l							
Nickel	BRL	0.0025	mg/l							
Silver	BRL	0.0050	mg/l							
Chromium	BRL	0.0025	mg/l							
Arsenic	BRL	0.0040	mg/l							
Copper	BRL	0.0025	mg/l							
Cadmium	BRL	0.0012	mg/l							
LCS (5100007-BS1)				Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Nickel	0.0911	0.0025	mg/l	0.100		91.1	85-115			
Zinc	0.0930	0.0330	mg/l	0.100		93.0	85-115			
Selenium	0.0926	0.0075	mg/l	0.100		92.6	85-115			
Lead	0.0888	0.0038	mg/l	0.100		88.8	85-115			
Iron	0.106	0.0025	mg/l	0.100		106	85-115			
Antimony	0.0916	0.0060	mg/l	0.100		91.6	85-115			
Silver	0.0451	0.0050	mg/l	0.0500		90.2	85-115			
Chromium	0.0914	0.0025	mg/l	0.100		91.4	85-115			
Cadmium	0.0906	0.0012	mg/l	0.100		90.6	85-115			
Arsenic	0.0853	0.0040	mg/l	0.100		85.3	85-115			
Copper	0.0936	0.0025	mg/l	0.100		93.6	85-115			
Duplicate (5100007-DUP1)		**Source: SA35009-05**		Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Iron	7.28	0.0025	mg/l		7.14			1.94	20	
Nickel	0.0066	0.0025	mg/l		0.0063			4.65	20	
Lead	0.0085	0.0038	mg/l		0.0080			6.06	20	
Antimony	BRL	0.0060	mg/l		0.0059				20	
Selenium	BRL	0.0075	mg/l		BRL				20	
Zinc	BRL	0.0330	mg/l		0.0324			3.45	20	
Silver	BRL	0.0050	mg/l		BRL				20	
Copper	0.0043	0.0025	mg/l		0.0042			2.35	20	
Chromium	BRL	0.0025	mg/l		BRL				20	
Cadmium	BRL	0.0012	mg/l		BRL				20	
Arsenic	BRL	0.0040	mg/l		BRL				20	
Matrix Spike (5100007-MS1)		**Source: SA35009-05**		Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Antimony	0.0718	0.0060	mg/l	0.100	0.0059	65.9	70-130			QM-07
Lead	0.0562	0.0038	mg/l	0.100	0.0080	48.2	70-130			QM-07
Selenium	0.0661	0.0075	mg/l	0.100	BRL	66.1	70-130			QM-07
Iron	7.30	0.0025	mg/l	0.100	7.14	160	70-130			QM-4X
Zinc	0.0858	0.0330	mg/l	0.100	0.0324	53.4	70-130			QM-07
Nickel	0.0592	0.0025	mg/l	0.100	0.0063	52.9	70-130			QM-07
Silver	0.0392	0.0050	mg/l	0.0500	BRL	78.4	70-130			
Chromium	0.0605	0.0025	mg/l	0.100	BRL	60.5	70-130			QM-07
Cadmium	0.0509	0.0012	mg/l	0.100	BRL	50.9	70-130			QM-07
Copper	0.0787	0.0025	mg/l	0.100	0.0042	74.5	70-130			
Arsenic	0.0603	0.0040	mg/l	0.100	BRL	60.3	70-130			QM-07
Matrix Spike Dup (5100007-MSD1)		**Source: SA35009-05**		Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Antimony	0.0733	0.0060	mg/l	0.100	0.0059	67.4	70-130	2.07	20	QM-07
Iron	7.36	0.0025	mg/l	0.100	7.14	220	70-130	0.819	20	QM-4X
Lead	0.0570	0.0038	mg/l	0.100	0.0080	49.0	70-130	1.41	20	QM-07
Zinc	0.0905	0.0330	mg/l	0.100	0.0324	58.1	70-130	5.33	20	QM-07

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100007 - EPA 200 Series										
Matrix Spike Dup (5100007-MSD1)		**Source: SA35009-05**		Prepared: 01-Oct-05 Analyzed: 03-Oct-05						
Selenium	0.0648	0.0075	mg/l	0.100	BRL	64.8	70-130	1.99	20	QM-07
Nickel	0.0598	0.0025	mg/l	0.100	0.0063	53.5	70-130	1.01	20	QM-07
Silver	0.0391	0.0050	mg/l	0.0500	BRL	78.2	70-130	0.255	20	
Copper	0.0775	0.0025	mg/l	0.100	0.0042	73.3	70-130	1.54	20	
Chromium	0.0612	0.0025	mg/l	0.100	BRL	61.2	70-130	1.15	20	QM-07
Cadmium	0.0507	0.0012	mg/l	0.100	BRL	50.7	70-130	0.394	20	QM-07
Arsenic	0.0605	0.0040	mg/l	0.100	BRL	60.5	70-130	0.331	20	QM-07
Batch 5100008 - EPA200/SW7000 Series										
Blank (5100008-BLK1)				Prepared: 01-Oct-05 Analyzed: 04-Oct-05						
Mercury	BRL	0.00020	mg/l							
LCS (5100008-BS1)				Prepared: 01-Oct-05 Analyzed: 04-Oct-05						
Mercury	0.00261	0.00010	mg/l	0.00250		104	80-120			
Duplicate (5100008-DUP1)		**Source: SA34814-01**		Prepared: 01-Oct-05 Analyzed: 04-Oct-05						
Mercury	BRL	0.00020	mg/l		0.00004			40.0	20	QR-04
Matrix Spike (5100008-MS1)		**Source: SA34814-01**		Prepared: 01-Oct-05 Analyzed: 04-Oct-05						
Mercury	0.00207	0.00020	mg/l	0.00250	0.00004	81.2	75-125			
Matrix Spike Dup (5100008-MSD1)		**Source: SA34814-01**		Prepared: 01-Oct-05 Analyzed: 04-Oct-05						
Mercury	0.00197	0.00020	mg/l	0.00250	0.00004	77.2	75-125	4.95	20	

General Chemistry Parameters - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5091898 - General Preparation										
Blank (5091898-BLK1)				Prepared & Analyzed: 27-Sep-05						
Total Residual Chlorine	BRL	0.020	mg/l							
LCS (5091898-BS1)				Prepared & Analyzed: 27-Sep-05						
Total Residual Chlorine	0.045	0.020	mg/l	0.0500		90.0	90-110			
Duplicate (5091898-DUP1)			**Source: SA34814-01**	Prepared & Analyzed: 27-Sep-05						
Total Residual Chlorine	BRL	0.020	mg/l		0.011			0.00	20	
Matrix Spike (5091898-MS1)			**Source: SA34814-01**	Prepared & Analyzed: 27-Sep-05						
Total Residual Chlorine	0.052	0.020	mg/l	0.0500	0.011	82.0	80-120			
Reference (5091898-SRM1)				Prepared & Analyzed: 27-Sep-05						
Total Residual Chlorine	0.108	0.020	mg/l	0.107		101	85-115			
Batch 5091967 - General Preparation										
Blank (5091967-BLK1)				Prepared & Analyzed: 28-Sep-05						
Hexavalent Chromium	BRL	0.005	mg/l							
LCS (5091967-BS1)				Prepared & Analyzed: 28-Sep-05						
Hexavalent Chromium	0.051	0.005	mg/l	0.0500		102	90-110			
Duplicate (5091967-DUP1)			**Source: SA34814-01**	Prepared & Analyzed: 28-Sep-05						
Hexavalent Chromium	BRL	0.005	mg/l		BRL				20	
Matrix Spike (5091967-MS1)			**Source: SA34814-01**	Prepared & Analyzed: 28-Sep-05						
Hexavalent Chromium	0.049	0.005	mg/l	0.0500	BRL	98.0	80-120			
Reference (5091967-SRM1)				Prepared & Analyzed: 28-Sep-05						
Hexavalent Chromium	0.026	0.005	mg/l	0.0250		104	85-115			
Batch 5092024 - General Preparation										
Blank (5092024-BLK1)				Prepared & Analyzed: 28-Sep-05						
Cyanide (total)	BRL	0.0100	mg/l							
LCS (5092024-BS1)				Prepared & Analyzed: 28-Sep-05						
Cyanide (total)	0.311	0.0100	mg/l	0.300		104	90-110			
Matrix Spike (5092024-MS1)			**Source: SA34667-11**	Prepared & Analyzed: 28-Sep-05						
Cyanide (total)	0.287	0.0100	mg/l	0.300	BRL	95.7	75-125			
Matrix Spike Dup (5092024-MSD1)			**Source: SA34667-11**	Prepared & Analyzed: 28-Sep-05						
Cyanide (total)	0.272	0.0100	mg/l	0.300	BRL	90.7	75-125	5.37	20	
Reference (5092024-SRM1)				Prepared & Analyzed: 28-Sep-05						
Cyanide (total)	0.312	0.0100	mg/l	0.333		93.7	75.7-125			
Batch 5092079 - General Preparation										
Blank (5092079-BLK1)				Prepared: 29-Sep-05 Analyzed: 30-Sep-05						
Total Suspended Solids	BRL	5.00	mg/l							
Duplicate (5092079-DUP1)			**Source: SA34866-01**	Prepared: 29-Sep-05 Analyzed: 30-Sep-05						
Total Suspended Solids	665	25.0	mg/l		665			0.00	20	
Duplicate (5092079-DUP2)			**Source: SA34949-02**	Prepared: 29-Sep-05 Analyzed: 30-Sep-05						
Total Suspended Solids	9.00	5.00	mg/l		9.00			0.00	20	
Reference (5092079-SRM1)				Prepared: 29-Sep-05 Analyzed: 30-Sep-05						
Total Suspended Solids	104	10.0	mg/l	102		102	90-110			

Notes and Definitions

QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QC-1	Analyte out of acceptance range.
QC-2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QR-04	Analyses are not controlled on RPD values from sample concentrations less than the reporting limit. QC batch accepted based on LCS and/or LCSD QC results
VOC3	Methylene Chloride concentration reflects normal average laboratory background.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

SA 34814 LL

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 5 Day
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: CEA INC
127 Hartwell St
West Boylston MA 01583
Project Mgr.:

Invoice To: CEA INC
P.O. No.: RQN:

Project No.: 4600-01
Site Name: McDonalds
Location: Newton State: MA
Sampler(s): Jonathan Briggs

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=$Na_2S_2O_3$ 10=NONE

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		Volatiles by SW846 8260	Semi-volatiles by SW846 8270	PCBs by SW846 8082	TPH 1664	metals	TSS / TRC / CRT	Cyanide	EDB via 504.1	QA Reporting Notes: (check if needed)
SA34814-01	INF	9-27	9:30	G	GW	5/10 4/9	4	3		3		X	X	X	X	X	X	X	X	see attached email list

State specific reporting standards *If applicable, please list below:*

☐ Provide MCP CAM Report
Were all field QC requirements met as per MADEP CAM Section 2.0?
☐ Yes ☐ No
(Response required for CAM report)

☐ Fax results when available to (____)
☒ E-mail to jacukauskas@cea-inc.com
EDD Format

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 20 CLR

Relinquished by:	Received by:	Date:	Time:
		9/27/05	1417
		9/27/05	16:45

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076 • www.spectrum-analytical.com

Report Date:
15-Sep-05 16:44

☑ Final Report

SPECTRUM ANALYTICAL, INC.
Featuring
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Laboratory Report

CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583
Attn: Adam Last

Project: McDonalds - Newton, MA
Project #: 4600-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA33845-01	EFF	Ground Water	07-Sep-05 10:00	08-Sep-05 17:45
SA33845-02	MID	Ground Water	07-Sep-05 10:15	08-Sep-05 17:45
SA33845-03	INF	Ground Water	07-Sep-05 10:30	08-Sep-05 17:45

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.
Please note that this report contains 10 pages of analytical data including Chain of Custody document(s).
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Maine # MA138
New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EFF SA33845-01	4600-01	Ground Water	07-Sep-05 10:00	08-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Aromatics by SW846 8260B			Prepared by method	SW846 5030 Water MS						
71-43-2	Benzene	BRL	1.0 µg/l	1	SW 846 8260B	14-Sep-05	14-Sep-05	5090899	RLJ	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	1.3	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	2.5 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*86.8*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*113*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*110*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method	SW846 3535						
8006-61-9	Gasoline	BRL	0.2 mg/l	1	+SW846 8100Mod.	14-Sep-05	15-Sep-05	5090838	KG	
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*49.7*	*40-140 %*		"	"	"	"	"	
Total Metals by EPA 200 Series Methods										
7439-92-1	Lead	BRL	0.0038 mg/l	1	EPA 200.7	14-Sep-05	14-Sep-05	5090778	CR	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MID SA33845-02	4600-01	Ground Water	07-Sep-05 10:15	08-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Aromatics by SW846 8260B			Prepared by method	SW846 5030 Water MS						
71-43-2	Benzene	BRL	1.0 µg/l	1	SW 846 8260B	14-Sep-05	14-Sep-05	5090899	RLJ	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	1.8	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	2.5 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*87.6*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*109*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*114*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*109*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method	SW846 3535						
8006-61-9	Gasoline	BRL	0.2 mg/l	1	+SW846 8100Mod.	14-Sep-05	15-Sep-05	5090838	KG	
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*53.1*	*40-140 %*		"	"	"	"	"	
Total Metals by EPA 200 Series Methods										
7439-92-1	Lead	BRL	0.0038 mg/l	1	EPA 200.7	14-Sep-05	14-Sep-05	5090778	CR	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
INF SA33845-03	4600-01	Ground Water	07-Sep-05 10:30	08-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Aromatics by SW846 8260B			Prepared by method	SW846 5030 Water MS						
71-43-2	Benzene	BRL	1.0 µg/l	1	SW 846 8260B	14-Sep-05	15-Sep-05	5090899	RLJ	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	548	1.0 µg/l	1	"	"	"	"	"	E
91-20-3	Naphthalene	BRL	2.5 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*87.2*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*103*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*119*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*114*	*70-130 %*		"	"	"	"	"	
Volatile Organic Aromatics by SW846 8260B			Prepared by method	SW846 5030 Water MS				SA33845-03RE1		
1634-04-4	Methyl tert-butyl ether	427	5.0 µg/l	5	SW 846 8260B	15-Sep-05	15-Sep-05	5090972	KS	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*95.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*115*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*109*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method	SW846 3535						
8006-61-9	Gasoline	BRL	0.2 mg/l	1	+SW846 8100Mod.	14-Sep-05	15-Sep-05	5090838	KG	
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	0.3	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	0.3	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*53.6*	*40-140 %*		"	"	"	"	"	
Total Metals by EPA 200 Series Methods										
7439-92-1	Lead	0.0105	0.0038 mg/l	1	EPA 200.7	14-Sep-05	14-Sep-05	5090778	CR	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5090899 - SW846 5030 Water MS										
Blank (5090899-BLK1)				Prepared & Analyzed: 14-Sep-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							
Toluene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*44.0*		µg/l	*50.0*		*88.0*	*70-130*			
Surrogate: Toluene-d8	*51.0*		µg/l	*50.0*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*59.2*		µg/l	*50.0*		*118*	*70-130*			
Surrogate: Dibromofluoromethane	*55.8*		µg/l	*50.0*		*112*	*70-130*			
LCS (5090899-BS1)				Prepared & Analyzed: 14-Sep-05						
Benzene	22.2		µg/l	20.0		111	70-130			
Ethylbenzene	22.5		µg/l	20.0		112	70-130			
Methyl tert-butyl ether	21.5		µg/l	20.0		108	70-130			
Toluene	21.0		µg/l	20.0		105	70-130			
m,p-Xylene	42.7		µg/l	40.0		107	70-130			
o-Xylene	22.6		µg/l	20.0		113	70-130			
Surrogate: 4-Bromofluorobenzene	*46.4*		µg/l	*50.0*		*92.8*	*70-130*			
Surrogate: Toluene-d8	*49.8*		µg/l	*50.0*		*99.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*57.3*		µg/l	*50.0*		*115*	*70-130*			
Surrogate: Dibromofluoromethane	*52.9*		µg/l	*50.0*		*106*	*70-130*			
Matrix Spike (5090899-MS1)	**Source: SA33845-02**			Prepared & Analyzed: 14-Sep-05						
Benzene	17.9		µg/l	20.0	BRL	89.5	70-130			
Toluene	17.8		µg/l	20.0	0.600	86.0	70-130			
Chlorobenzene	19.2		µg/l	20.0	0.600	93.0	70-130			
1,1-Dichloroethene	15.8		µg/l	20.0	0.900	74.5	70-130			
Trichloroethene	14.3		µg/l	20.0	0.700	68.0	70-130			QR-05
Surrogate: 4-Bromofluorobenzene	*46.5*		µg/l	*50.0*		*93.0*	*70-130*			
Surrogate: Toluene-d8	*50.7*		µg/l	*50.0*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*55.6*		µg/l	*50.0*		*111*	*70-130*			
Surrogate: Dibromofluoromethane	*60.0*		µg/l	*50.0*		*120*	*70-130*			
Matrix Spike Dup (5090899-MSD1)	**Source: SA33845-02**			Prepared & Analyzed: 14-Sep-05						
Benzene	20.2		µg/l	20.0	BRL	101	70-130	12.1	30	
Toluene	20.1		µg/l	20.0	0.600	97.5	70-130	12.5	30	
Chlorobenzene	20.4		µg/l	20.0	0.600	99.0	70-130	6.25	30	
1,1-Dichloroethene	18.0		µg/l	20.0	0.900	85.5	70-130	13.8	30	
Trichloroethene	16.8		µg/l	20.0	0.700	80.5	70-130	16.8	30	
Surrogate: 4-Bromofluorobenzene	*46.1*		µg/l	*50.0*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*53.5*		µg/l	*50.0*		*107*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*61.3*		µg/l	*50.0*		*123*	*70-130*			
Surrogate: Dibromofluoromethane	*57.5*		µg/l	*50.0*		*115*	*70-130*			
Batch 5090972 - SW846 5030 Water MS										
Blank (5090972-BLK1)				Prepared & Analyzed: 15-Sep-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							
Toluene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*53.0*		µg/l	*50.0*		*106*	*70-130*			
Surrogate: Toluene-d8	*49.4*		µg/l	*50.0*		*98.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.8*		µg/l	*50.0*		*106*	*70-130*			

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit BRL = Below Reporting Limit

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5090972 - SW846 5030 Water MS										
Blank (5090972-BLK1)				Prepared & Analyzed: 15-Sep-05						
Surrogate: Dibromofluoromethane	*51.6*		µg/l	*50.0*		*103*	*70-130*			
LCS (5090972-BS1)				Prepared & Analyzed: 15-Sep-05						
Benzene	19.3		µg/l	20.0		96.5	70-130			
Ethylbenzene	21.3		µg/l	20.0		106	70-130			
Methyl tert-butyl ether	20.7		µg/l	20.0		104	70-130			
Toluene	19.8		µg/l	20.0		99.0	70-130			
m,p-Xylene	43.9		µg/l	40.0		110	70-130			
o-Xylene	22.6		µg/l	20.0		113	70-130			
Surrogate: 4-Bromofluorobenzene	*52.5*		µg/l	*50.0*		*105*	*70-130*			
Surrogate: Toluene-d8	*47.6*		µg/l	*50.0*		*95.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.8*		µg/l	*50.0*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*51.4*		µg/l	*50.0*		*103*	*70-130*			
LCS Dup (5090972-BSD1)				Prepared & Analyzed: 15-Sep-05						
Benzene	18.7		µg/l	20.0		93.5	70-130	3.16	25	
Ethylbenzene	19.9		µg/l	20.0		99.5	70-130	6.33	25	
Methyl tert-butyl ether	20.0		µg/l	20.0		100	70-130	3.92	25	
Toluene	19.1		µg/l	20.0		95.5	70-130	3.60	25	
m,p-Xylene	40.8		µg/l	40.0		102	70-130	7.55	25	
o-Xylene	21.4		µg/l	20.0		107	70-130	5.45	25	
Surrogate: 4-Bromofluorobenzene	*53.4*		µg/l	*50.0*		*107*	*70-130*			
Surrogate: Toluene-d8	*48.3*		µg/l	*50.0*		*96.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.0*		µg/l	*50.0*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*51.6*		µg/l	*50.0*		*103*	*70-130*			
Matrix Spike (5090972-MS1)	**Source: SA33844-04**			Prepared & Analyzed: 15-Sep-05						
Benzene	17.2		µg/l	20.0	BRL	86.0	70-130			
Toluene	18.3		µg/l	20.0	BRL	91.5	70-130			
Chlorobenzene	21.0		µg/l	20.0	0.0	105	70-130			
1,1-Dichloroethene	14.7		µg/l	20.0	0.0	73.5	70-130			
Trichloroethene	18.3		µg/l	20.0	0.0	91.5	70-130			
Surrogate: 4-Bromofluorobenzene	*53.2*		µg/l	*50.0*		*106*	*70-130*			
Surrogate: Toluene-d8	*48.8*		µg/l	*50.0*		*97.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*56.0*		µg/l	*50.0*		*112*	*70-130*			
Surrogate: Dibromofluoromethane	*53.5*		µg/l	*50.0*		*107*	*70-130*			
Matrix Spike Dup (5090972-MSD1)	**Source: SA33844-04**			Prepared & Analyzed: 15-Sep-05						
Benzene	16.9		µg/l	20.0	BRL	84.5	70-130	1.76	30	
Toluene	18.6		µg/l	20.0	BRL	93.0	70-130	1.63	30	
Chlorobenzene	20.6		µg/l	20.0	0.0	103	70-130	1.92	30	
1,1-Dichloroethene	14.3		µg/l	20.0	0.0	71.5	70-130	2.76	30	
Trichloroethene	18.2		µg/l	20.0	0.0	91.0	70-130	0.548	30	
Surrogate: 4-Bromofluorobenzene	*53.1*		µg/l	*50.0*		*106*	*70-130*			
Surrogate: Toluene-d8	*50.6*		µg/l	*50.0*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*57.7*		µg/l	*50.0*		*115*	*70-130*			
Surrogate: Dibromofluoromethane	*53.8*		µg/l	*50.0*		*108*	*70-130*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5090838 - SW846 3535										
Blank (5090838-BLK1)				Prepared: 14-Sep-05 Analyzed: 15-Sep-05						
Gasoline	BRL	0.1	mg/l							
Fuel Oil #2	BRL	0.1	mg/l							
Fuel Oil #4	BRL	0.1	mg/l							
Fuel Oil #6	BRL	0.1	mg/l							
Motor Oil	BRL	0.1	mg/l							
Ligroin	BRL	0.1	mg/l							
Aviation Fuel	BRL	0.1	mg/l							
Unidentified	BRL	0.1	mg/l							
Other Oil	BRL	0.1	mg/l							
Total Petroleum Hydrocarbons	BRL	0.1	mg/l							
Surrogate: 1-Chlorooctadecane	*0.0296*		mg/l	*0.0500*		*59.2*	*40-140*			
LCS (5090838-BS1)				Prepared: 14-Sep-05 Analyzed: 15-Sep-05						
Fuel Oil #2	10.2	0.1	mg/l	10.0		102	40-140			
Duplicate (5090838-DUP1)		**Source: SA33864-05**		Prepared: 14-Sep-05 Analyzed: 15-Sep-05						
Gasoline	BRL	0.2	mg/l		BRL				50	
Fuel Oil #2	BRL	0.2	mg/l		BRL				50	
Fuel Oil #4	BRL	0.2	mg/l		BRL				50	
Fuel Oil #6	BRL	0.2	mg/l		BRL				50	
Motor Oil	BRL	0.2	mg/l		BRL				50	
Ligroin	BRL	0.2	mg/l		BRL				50	
Aviation Fuel	BRL	0.2	mg/l		BRL				50	
Unidentified	BRL	0.2	mg/l		BRL				50	
Other Oil	BRL	0.2	mg/l		BRL				50	
Total Petroleum Hydrocarbons	BRL	0.2	mg/l		BRL				50	
Surrogate: 1-Chlorooctadecane	*0.0299*		mg/l	*0.0588*		*50.9*	*40-140*			

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5090778 - EPA 200 Series										
Blank (5090778-BLK1)				Prepared & Analyzed: 14-Sep-05						
Lead	BRL	0.0038	mg/l							
LCS (5090778-BS1)				Prepared & Analyzed: 14-Sep-05						
Lead	0.0931	0.0038	mg/l	0.100		93.1	85-115			
Duplicate (5090778-DUP1)		**Source: SA33789-01**		Prepared & Analyzed: 14-Sep-05						
Lead	BRL	0.0038	mg/l		BRL				20	
Matrix Spike (5090778-MS1)		**Source: SA33845-02**		Prepared & Analyzed: 14-Sep-05						
Lead	0.0643	0.0038	mg/l	0.100	BRL	64.3	70-130			QM-07
Matrix Spike Dup (5090778-MSD1)		**Source: SA33845-02**		Prepared & Analyzed: 14-Sep-05						
Lead	0.0686	0.0038	mg/l	0.100	BRL	68.6	70-130	6.47	20	QM-07

Notes and Definitions

*TPH	Calculated as
__RE	Reanalysis for data confirmation.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-05	RPD out of acceptance range.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

SA 33845

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [X] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: CEA
127 Hayfwell St
W. Boylston MA
Project Mgr.: Al Dion

Invoice To: SAMC
P.O. No.: _____ RQN: _____

Project No.: 4660-01
Site Name: McDonald
Location: Rt 128 S Newton State: MA
Sampler(s): Matt

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: TPH 8100	BTEX MTBE Naphthalene	Total Lead	QA Reporting Notes: (check if needed)
33845-01	EFF	9-7	10 AM	G	GW	2/3	2	1		1	✓	✓	✓	State specific reporting standards *If applicable, please list below.*
-02	mid	9-7	10 15 AM	G	GW	2/3	2	1		1	✓	✓	✓	☐ Provide MCP CAM Report Were all field QC requirements met as per MADEP CAM Section 2.0? ☐ Yes ☐ No *(Response required for CAM report)*
-03	Inf	9-7	10 30 AM	G	GW	2/3	2	1		1	✓	✓	✓	

☐ Fax results when available to (508) 835 6812
☐ E-mail to _____
EDD Format _____

Condition upon receipt: ☐ Iced ☐ Ambient ☐ °C 5C

Relinquished by:	Received by:	Date:	Time:
C Tuttle		9/8/05	10:48
		9/8/05	1745

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076 • www.spectrum-analytical.com

Report Date:
07-Oct-05 15:20

☑ Final Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583
Attn: Adam Last

Project: McDonalds - Newton, MA
Project #: 4600-01-00016

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA34712-01	SVE-1	Ground Water	22-Sep-05 13:00	23-Sep-05 17:15
SA34712-02	SVE-2	Ground Water	22-Sep-05 13:15	23-Sep-05 17:15
SA34712-03	SVE-4	Ground Water	22-Sep-05 11:10	23-Sep-05 17:15
SA34712-04	SVE-7	Ground Water	22-Sep-05 12:00	23-Sep-05 17:15
SA34712-05	SVE-8	Ground Water	22-Sep-05 11:40	23-Sep-05 17:15
SA34712-06	HVE-1	Ground Water	22-Sep-05 10:30	23-Sep-05 17:15
SA34712-07	HVE-2	Ground Water	22-Sep-05 11:00	23-Sep-05 17:15
SA34712-08	HVE-3	Ground Water	22-Sep-05 10:00	23-Sep-05 17:15
SA34712-09	MW-7A	Ground Water	22-Sep-05 10:45	23-Sep-05 17:15
SA34712-10	GT-2	Ground Water	22-Sep-05 10:15	23-Sep-05 17:15
SA34712-11	DUP-1	Ground Water	22-Sep-05 00:00	23-Sep-05 17:15
SA34712-12	Trip Blank	Aqueous	22-Sep-05 00:00	23-Sep-05 17:15

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.
Please note that this report contains 34 pages of analytical data including Chain of Custody document(s).
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Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

ACCREDITED IN ACCORDANCE WITH nelac

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

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CASE NARRATIVE:

The data set for work order SA34712 complies with internal QC criteria for the methods performed. The samples were received @ 8.0 degrees Celsius. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method.

According to WSC-CAM 5/2004 Rev.4, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended 70%-130% recovery range, a range has been set based on historical control limits. Please refer to "Notes and Definitions" for all sample/analyte qualifiers. Qualifiers will narrate any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-1 SA34712-01	4600-01-00016	Ground Water	22-Sep-05 13:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	3.93	0.0750 mg/l	5	+MADEP 5/2004 Rev. 1.1	05-Oct-05	06-Oct-05	5100233	SS	
	C9-C12 Aliphatic Hydrocarbons	1.32	0.0250 mg/l	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	2.30	0.0250 mg/l	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	4.49	0.0750 mg/l	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	3.62	0.0250 mg/l	5	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	34.9	5.0 µg/l	5	"	"	"	"	"	
100-41-4	Ethylbenzene	202	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	53.3	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	152	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	11.9	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	192	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	66.7	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*99.2*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*92.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	1.7	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	0.9	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	1.4	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	1.4	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	3.9	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	4.0	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	7.83	5.38 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	7.91	5.38 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.38 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	BRL	5.38 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	BRL	5.38 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	BRL	5.38 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	BRL	5.38 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.38 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	BRL	5.38 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.38 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.38 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.38 µg/l	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL	5.38 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-1 SA34712-01	4600-01-00016	Ground Water	22-Sep-05 13:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
50-32-8	Benzo (a) pyrene	BRL	5.38 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.38 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.38 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.38 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*49.6*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*32.7*	*40-140 %*		"	"	"	"	"	S-GC
580-13-2	*2-Bromonaphthalene*	*58.4*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*63.5*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	0.0621	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.15 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-2 SA34712-02	4600-01-00016	Ground Water	22-Sep-05 13:15	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	2.09	0.0750 mg/l	5	+MADEP 5/2004 Rev. 1.1	05-Oct-05	06-Oct-05	5100233	SS	
	C9-C12 Aliphatic Hydrocarbons	0.604	0.0250 mg/l	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	1.47	0.0250 mg/l	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	3.22	0.0750 mg/l	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	2.08	0.0250 mg/l	5	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	33.7	5.0 µg/l	5	"	"	"	"	"	
100-41-4	Ethylbenzene	60.7	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	328	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	112	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	56.7	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	452	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	199	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*97.0*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*94.8*	*70-130 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-4	4600-01-00016	Ground Water	22-Sep-05 11:10	23-Sep-05
SA34712-03				

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	2.59	0.750 mg/l	50	+MADEP 5/2004 Rev. 1.1	05-Oct-05	06-Oct-05	5100233	SS	
	C9-C12 Aliphatic Hydrocarbons	1.69	0.250 mg/l	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	3.89	0.250 mg/l	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	10.5	0.750 mg/l	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5.58	0.250 mg/l	50	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	360	50.0 µg/l	50	"	"	"	"	"	
100-41-4	Ethylbenzene	1,070	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	5,160	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	354	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	54.5	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	1,210	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	61.0	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*100*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*95.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	BRL	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	BRL	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	0.8	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	0.9	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	0.9	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	1.1	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	108	5.26 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	38.4	5.26 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.26 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	BRL	5.26 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	BRL	5.26 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	BRL	5.26 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	BRL	5.26 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.26 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	BRL	5.26 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.26 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.26 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.26 µg/l	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL	5.26 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-4 SA34712-03	4600-01-00016	Ground Water	22-Sep-05 11:10	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method		SW846 3510C					
50-32-8	Benzo (a) pyrene	BRL	5.26 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.26 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.26 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.26 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*42.2*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*38.6*	*40-140 %*		"	"	"	"	"	S-GC
580-13-2	*2-Bromonaphthalene*	*62.9*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*58.0*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	BRL	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.11 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-7 SA34712-04	4600-01-00016	Ground Water	22-Sep-05 12:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	0.116	0.0750 mg/l	5	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	0.377	0.0250 mg/l	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	0.554	0.0250 mg/l	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	0.807	0.0750 mg/l	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	0.932	0.0250 mg/l	5	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	8.7	5.0 µg/l	5	"	"	"	"	"	
100-41-4	Ethylbenzene	16.5	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	619	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	28.2	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	7.1	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	26.7	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	12.8	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*104*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*97.4*	*70-130 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	BRL	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	4.00 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-8 SA34712-05	4600-01-00016	Ground Water	22-Sep-05 11:40	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	2.16	0.750 mg/l	50	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	1.62	0.250 mg/l	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	3.11	0.250 mg/l	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	9.56	0.750 mg/l	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	4.74	0.250 mg/l	50	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	327	50.0 µg/l	50	"	"	"	"	"	
100-41-4	Ethylbenzene	771	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	5,590	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	289	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	51.7	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	615	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	BRL	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*104*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*98.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	0.3	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	0.4	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	1.1	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	1.2	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	1.7	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	1.9	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	118	5.32 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	50.6	5.32 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.32 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	BRL	5.32 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	BRL	5.32 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	BRL	5.32 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	BRL	5.32 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.32 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SVE-8 SA34712-05	4600-01-00016	Ground Water	22-Sep-05 11:40	23-Sep-05

CAS No.	*Analyte(s)*	*Result*	**RDL/Units*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Batch*	*Analyst*	*Flag*
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
50-32-8	Benzo (a) pyrene	BRL	5.32 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.32 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.32 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*44.4*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*21.8*	*40-140 %*		"	"	"	"	"	S-GC
580-13-2	*2-Bromonaphthalene*	*61.0*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*54.2*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	BRL	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.13 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
HVE-1 SA34712-06	4600-01-00016	Ground Water	22-Sep-05 10:30	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	0.831	0.375 mg/l	25	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	0.432	0.125 mg/l	25	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	0.834	0.125 mg/l	25	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	3.77	0.375 mg/l	25	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	1.27	0.125 mg/l	25	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	144	25.0 µg/l	25	"	"	"	"	"	
100-41-4	Ethylbenzene	169	25.0 µg/l	25	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	2,570	25.0 µg/l	25	"	"	"	"	"	
91-20-3	Naphthalene	49.0	25.0 µg/l	25	"	"	"	"	"	
108-88-3	Toluene	BRL	25.0 µg/l	25	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	50.0 µg/l	25	"	"	"	"	"	
95-47-6	o-Xylene	BRL	25.0 µg/l	25	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*96.2*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*90.8*	*70-130 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
HVE-2 SA34712-07	4600-01-00016	Ground Water	22-Sep-05 11:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	4.05	0.750 mg/l	50	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	1.48	0.250 mg/l	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	2.86	0.250 mg/l	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	6.93	0.750 mg/l	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	4.34	0.250 mg/l	50	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	140	50.0 µg/l	50	"	"	"	"	"	
100-41-4	Ethylbenzene	275	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	1,260	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	215	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	50.2	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	770	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	386	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*105*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*101*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	5.9	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	0.2	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	4.1	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	4.6	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	10.2	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	10.7	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	234	5.32 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	241	5.32 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.32 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	BRL	5.32 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	BRL	5.32 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	BRL	5.32 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	BRL	5.32 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.32 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL	5.32 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
HVE-3 SA34712-08	4600-01-00016	Ground Water	22-Sep-05 10:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	BRL	0.0750 mg/l	5	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	BRL	0.0250 mg/l	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	BRL	0.0250 mg/l	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	0.240	0.0750 mg/l	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250 mg/l	5	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	BRL	5.0 µg/l	5	"	"	"	"	"	
100-41-4	Ethylbenzene	BRL	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	310	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	BRL	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	BRL	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*95.8*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*88.8*	*70-130 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	BRL	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	4.00 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
HVE-2 SA34712-07	4600-01-00016	Ground Water	22-Sep-05 11:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method		SW846 3510C					
50-32-8	Benzo (a) pyrene	BRL	5.32 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.32 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.32 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.32 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*49.1*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*37.8*	*40-140 %*		"	"	"	"	"	S-GC
580-13-2	*2-Bromonaphthalene*	*65.5*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*58.7*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	0.160	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.13 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7A SA34712-09	4600-01-00016	Ground Water	22-Sep-05 10:45	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						PH, R-05
	C5-C8 Aliphatic Hydrocarbons	17.4	3.00 mg/l	200	+MADEP 5/2004 Rev. 1.1	05-Oct-05	06-Oct-05	5100233	SS	
	C9-C12 Aliphatic Hydrocarbons	61.5	1.00 mg/l	200	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	69.9	1.00 mg/l	200	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	35.9	3.00 mg/l	200	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	131	1.00 mg/l	200	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						PH, R-05
71-43-2	Benzene	334	200 µg/l	200	"	"	"	"	"	
100-41-4	Ethylbenzene	1,390	200 µg/l	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	14,500	200 µg/l	200	"	"	"	"	"	
91-20-3	Naphthalene	7,490	200 µg/l	200	"	"	"	"	"	
108-88-3	Toluene	BRL	200 µg/l	200	"	"	"	"	"	
1330-20-7	m,p-Xylene	2,030	400 µg/l	200	"	"	"	"	"	
95-47-6	o-Xylene	BRL	200 µg/l	200	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*116*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*96.4*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	77.2	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	7.6	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	27.0	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	28.4	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	112	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	113	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	511	5.49 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	731	5.49 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.49 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	15.3	5.49 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	31.5	5.49 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	53.6	5.49 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	12.3	5.49 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.49 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	11.7	5.49 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.49 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.49 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.49 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7A SA34712-09	4600-01-00016	Ground Water	22-Sep-05 10:45	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
207-08-9	Benzo (k) fluoranthene	BRL	5.49 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
50-32-8	Benzo (a) pyrene	BRL	5.49 µg/l	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.49 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.49 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.49 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*63.6*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*49.2*	*40-140 %*		"	"	"	"	"	
580-13-2	*2-Bromonaphthalene*	*72.7*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*61.1*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	0.0230	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.20 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GT-2 SA34712-10	4600-01-00016	Ground Water	22-Sep-05 10:15	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	3.38	0.750 mg/l	50	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	1.49	0.250 mg/l	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	1.47	0.250 mg/l	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	7.55	0.750 mg/l	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	2.96	0.250 mg/l	50	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	242	50.0 µg/l	50	"	"	"	"	"	
100-41-4	Ethylbenzene	399	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	2,270	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	121	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	97.0	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	857	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	302	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*88.2*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*82.4*	*70-130 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	0.194	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	4.00 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP-1	4600-01-00016	Ground Water	22-Sep-05 00:00	23-Sep-05
SA34712-11				

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						PH, R-05
	C5-C8 Aliphatic Hydrocarbons	13.5	3.00 mg/l	200	+MADEP 5/2004 Rev. 1.1	05-Oct-05	06-Oct-05	5100233	SS	
	C9-C12 Aliphatic Hydrocarbons	28.6	1.00 mg/l	200	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	36.4	1.00 mg/l	200	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	33.6	3.00 mg/l	200	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	65.0	1.00 mg/l	200	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						PH, R-05
71-43-2	Benzene	337	200 µg/l	200	"	"	"	"	"	
100-41-4	Ethylbenzene	1,210	200 µg/l	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	16,500	200 µg/l	200	"	"	"	"	"	
91-20-3	Naphthalene	3,750	200 µg/l	200	"	"	"	"	"	
108-88-3	Toluene	BRL	200 µg/l	200	"	"	"	"	"	
1330-20-7	m,p-Xylene	1,760	400 µg/l	200	"	"	"	"	"	
95-47-6	o-Xylene	BRL	200 µg/l	200	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*109*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*93.8*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
EPH Aliphatic/Aromatic Ranges			Prepared by method	SW846 3510C						
	C9-C18 Aliphatic Hydrocarbons	54.5	0.2 mg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
	C19-C36 Aliphatic Hydrocarbons	4.6	0.2 mg/l	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	16.1	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	17.0	0.2 mg/l	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	75.3	0.2 mg/l	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	76.1	0.2 mg/l	1	"	"	"	"	"	
EPH Target PAH Analytes			Prepared by method	SW846 3510C						
91-20-3	Naphthalene	334	5.38 µg/l	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	466	5.38 µg/l	1	"	"	"	"	"	
208-96-8	Acenaphthylene	BRL	5.38 µg/l	1	"	"	"	"	"	
83-32-9	Acenaphthene	11.4	5.38 µg/l	1	"	"	"	"	"	
86-73-7	Fluorene	19.3	5.38 µg/l	1	"	"	"	"	"	
85-01-8	Phenanthrene	33.5	5.38 µg/l	1	"	"	"	"	"	
120-12-7	Anthracene	6.37	5.38 µg/l	1	"	"	"	"	"	
206-44-0	Fluoranthene	BRL	5.38 µg/l	1	"	"	"	"	"	
129-00-0	Pyrene	7.25	5.38 µg/l	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL	5.38 µg/l	1	"	"	"	"	"	
218-01-9	Chrysene	BRL	5.38 µg/l	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL	5.38 µg/l	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP-1	4600-01-00016	Ground Water	22-Sep-05 00:00	23-Sep-05
SA34712-11				

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
EPH Target PAH Analytes			Prepared by method		SW846 3510C					
207-08-9	Benzo (k) fluoranthene	BRL	5.38 µg/l	1	+MADEP 5/2004 R	03-Oct-05	04-Oct-05	5100035	JD	
50-32-8	Benzo (a) pyrene	BRL	5.38 µg/l	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL	5.38 µg/l	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL	5.38 µg/l	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL	5.38 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*59.3*	*40-140 %*		"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*48.5*	*40-140 %*		"	"	"	"	"	
580-13-2	*2-Bromonaphthalene*	*52.6*	*40-140 %*		"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*57.9*	*40-140 %*		"	"	"	"	"	
Soluble Metals by EPA 6000/7000 Series Methods										
7439-92-1	Lead	0.0283	0.0150 mg/l	1	SW846 6010B	04-Oct-05	06-Oct-05	5100207	HB	
Soluble Metals by EPA 200 Series Methods										
	Filtration	Lab Filtered	N/A	1	EPA 200.7/3005A	04-Oct-05	04-Oct-05	5100197	YP	
General Chemistry Parameters										
78-00-2	Tetraethyl lead	BRL	2.15 µg/l	1	MOD SW846 8270C	03-Oct-05	06-Oct-05	5100036	MB	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank SA34712-12	4600-01-00016	Aqueous	22-Sep-05 00:00	23-Sep-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
VPH Aliphatic/Aromatic Carbon Ranges			Prepared by method	VPH						
	C5-C8 Aliphatic Hydrocarbons	BRL	0.0750 mg/l	1	+MADEP 5/2004 Rev. 1.1	04-Oct-05	05-Oct-05	5100205	SS	
	C9-C12 Aliphatic Hydrocarbons	BRL	0.0250 mg/l	1	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	BRL	0.0250 mg/l	1	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL	0.0750 mg/l	1	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250 mg/l	1	"	"	"	"	"	
VPH Target Analytes			Prepared by method	VPH						
71-43-2	Benzene	BRL	5.0 µg/l	1	"	"	"	"	"	
100-41-4	Ethylbenzene	BRL	5.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	5.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	5.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	10.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	5.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
615-59-8	*2,5-Dibromotoluene (FID)*	*89.4*	*70-130 %*		"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*81.0*	*70-130 %*		"	"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100205 - VPH										
Blank (5100205-BLK1)				Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l							
C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l							
C9-C10 Aromatic Hydrocarbons	BRL	0.0250	mg/l							
Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l							
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l							
Benzene	BRL	5.0	µg/l							
Ethylbenzene	BRL	5.0	µg/l							
Methyl tert-butyl ether	BRL	5.0	µg/l							
Naphthalene	BRL	5.0	µg/l							
Toluene	BRL	5.0	µg/l							
m,p-Xylene	BRL	10.0	µg/l							
o-Xylene	BRL	5.0	µg/l							
Surrogate: 2,5-Dibromotoluene (FID)	*51.3*		µg/l	*50.0*		*103*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*45.6*		µg/l	*50.0*		*91.2*	*70-130*			
LCS (5100205-BS1)				Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	128		mg/l	140		91.4	70-130			
C9-C12 Aliphatic Hydrocarbons	55.5		mg/l	55.0		101	70-130			
C9-C10 Aromatic Hydrocarbons	36.7		mg/l	40.0		91.8	70-130			
Unadjusted C5-C8 Aliphatic Hydrocarbons	259		mg/l	280		92.5	70-130			
Unadjusted C9-C12 Aliphatic Hydrocarbons	92.2		mg/l	85.0		108	70-130			
Benzene	18.4		µg/l	20.0		92.0	70-130			
Ethylbenzene	18.4		µg/l	20.0		92.0	70-130			
Methyl tert-butyl ether	19.4		µg/l	20.0		97.0	70-130			
Naphthalene	19.0		µg/l	20.0		95.0	70-130			
Toluene	18.7		µg/l	20.0		93.5	70-130			
m,p-Xylene	37.1		µg/l	40.0		92.8	70-130			
o-Xylene	18.8		µg/l	20.0		94.0	70-130			
2-Methylpentane	18.8		µg/l	20.0		94.0	70-130			
n-Nonane	20.2		µg/l	20.0		101	70-130			
n-Pentane	17.9		µg/l	20.0		89.5	70-130			
1,2,4-Trimethylbenzene	19.6		µg/l	20.0		98.0	70-130			
2,2,4-Trimethylpentane	22.6		µg/l	20.0		113	70-130			
n-Butylcyclohexane	21.1		µg/l	20.0		106	70-130			
n-Decane	23.0		µg/l	20.0		115	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*51.4*		µg/l	*50.0*		*103*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*47.0*		µg/l	*50.0*		*94.0*	*70-130*			
LCS Dup (5100205-BSD1)				Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	122		mg/l	140		87.1	70-130	4.82	25	
C9-C12 Aliphatic Hydrocarbons	59.9		mg/l	55.0		109	70-130	7.62	25	
C9-C10 Aromatic Hydrocarbons	31.9		mg/l	40.0		79.8	70-130	14.0	25	
Unadjusted C5-C8 Aliphatic Hydrocarbons	254		mg/l	280		90.7	70-130	1.97	25	
Unadjusted C9-C12 Aliphatic Hydrocarbons	91.8		mg/l	85.0		108	70-130	0.00	25	
Benzene	18.5		µg/l	20.0		92.5	70-130	0.542	25	
Ethylbenzene	18.6		µg/l	20.0		93.0	70-130	1.08	25	
Methyl tert-butyl ether	18.3		µg/l	20.0		91.5	70-130	5.84	25	
Naphthalene	20.2		µg/l	20.0		101	70-130	6.12	25	
Toluene	18.8		µg/l	20.0		94.0	70-130	0.533	25	
m,p-Xylene	37.6		µg/l	40.0		94.0	70-130	1.28	25	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100205 - VPH										
LCS Dup (5100205-BSD1)				Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
o-Xylene	19.4		µg/l	20.0		97.0	70-130	3.14	25	
2-Methylpentane	18.9		µg/l	20.0		94.5	70-130	0.531	25	
n-Nonane	17.3		µg/l	20.0		86.5	70-130	15.5	25	
n-Pentane	17.9		µg/l	20.0		89.5	70-130	0.00	25	
1,2,4-Trimethylbenzene	19.5		µg/l	20.0		97.5	70-130	0.512	25	
2,2,4-Trimethylpentane	20.0		µg/l	20.0		100	70-130	12.2	25	
n-Butylcyclohexane	17.9		µg/l	20.0		89.5	70-130	16.9	25	
n-Decane	18.7		µg/l	20.0		93.5	70-130	20.6	25	
Surrogate: 2,5-Dibromotoluene (FID)	*52.7*		µg/l	*50.0*		*105*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*47.9*		µg/l	*50.0*		*95.8*	*70-130*			
Duplicate (5100205-DUP1)	**Source: SA35031-03**			Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l		BRL				50	
C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
C9-C10 Aromatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l		BRL				50	
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
Benzene	BRL	5.0	µg/l		BRL				50	
Ethylbenzene	BRL	5.0	µg/l		BRL				50	
Methyl tert-butyl ether	BRL	5.0	µg/l		BRL				50	
Naphthalene	BRL	5.0	µg/l		BRL				50	
Toluene	BRL	5.0	µg/l		BRL				50	
m,p-Xylene	BRL	10.0	µg/l		BRL				50	
o-Xylene	BRL	5.0	µg/l		BRL				50	
Surrogate: 2,5-Dibromotoluene (FID)	*49.8*		µg/l	*50.0*		*99.6*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*47.0*		µg/l	*50.0*		*94.0*	*70-130*			
Matrix Spike (5100205-MS1)	**Source: SA35031-03**			Prepared: 04-Oct-05 Analyzed: 05-Oct-05						
Benzene	19.2		µg/l	20.0	BRL	96.0	70-130			
Ethylbenzene	19.1		µg/l	20.0	BRL	95.5	70-130			
Methyl tert-butyl ether	19.2		µg/l	20.0	BRL	96.0	70-130			
Naphthalene	19.9		µg/l	20.0	BRL	99.5	70-130			
Toluene	19.4		µg/l	20.0	BRL	97.0	70-130			
m,p-Xylene	38.7		µg/l	40.0	BRL	96.8	70-130			
o-Xylene	20.0		µg/l	20.0	BRL	100	70-130			
2-Methylpentane	19.5		µg/l	20.0	BRL	97.5	70-130			
n-Nonane	21.1		µg/l	20.0	BRL	106	70-130			
n-Pentane	18.7		µg/l	20.0	BRL	93.5	70-130			
1,2,4-Trimethylbenzene	20.6		µg/l	20.0	BRL	103	70-130			
2,2,4-Trimethylpentane	22.7		µg/l	20.0	BRL	114	70-130			
n-Butylcyclohexane	22.4		µg/l	20.0	0.0	112	70-130			
n-Decane	20.8		µg/l	20.0	0.0	104	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*55.2*		µg/l	*50.0*		*110*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*49.9*		µg/l	*50.0*		*99.8*	*70-130*			
Batch 5100233 - VPH										
Blank (5100233-BLK1)				Prepared & Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l							
C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l							
C9-C10 Aromatic Hydrocarbons	BRL	0.0250	mg/l							
Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l							
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l							

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100233 - VPH										
Blank (5100233-BLK1)				Prepared & Analyzed: 05-Oct-05						
Benzene	BRL	5.0	µg/l							
Ethylbenzene	BRL	5.0	µg/l							
Methyl tert-butyl ether	BRL	5.0	µg/l							
Naphthalene	BRL	5.0	µg/l							
Toluene	BRL	5.0	µg/l							
m,p-Xylene	BRL	10.0	µg/l							
o-Xylene	BRL	5.0	µg/l							
Surrogate: 2,5-Dibromotoluene (FID)	*44.4*		µg/l	*50.0*		*88.8*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*39.3*		µg/l	*50.0*		*78.6*	*70-130*			
LCS (5100233-BS1)				Prepared & Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	127		mg/l	140		90.7	70-130			
C9-C12 Aliphatic Hydrocarbons	61.0		mg/l	55.0		111	70-130			
C9-C10 Aromatic Hydrocarbons	30.2		mg/l	40.0		75.5	70-130			
Unadjusted C5-C8 Aliphatic Hydrocarbons	245		mg/l	280		87.5	70-130			
Unadjusted C9-C12 Aliphatic Hydrocarbons	91.2		mg/l	85.0		107	70-130			
Benzene	17.1		µg/l	20.0		85.5	70-130			
Ethylbenzene	16.0		µg/l	20.0		80.0	70-130			
Methyl tert-butyl ether	18.4		µg/l	20.0		92.0	70-130			
Naphthalene	18.8		µg/l	20.0		94.0	70-130			
Toluene	16.9		µg/l	20.0		84.5	70-130			
m,p-Xylene	32.7		µg/l	40.0		81.8	70-130			
o-Xylene	17.0		µg/l	20.0		85.0	70-130			
2-Methylpentane	17.9		µg/l	20.0		89.5	70-130			
n-Nonane	16.7		µg/l	20.0		83.5	70-130			
n-Pentane	20.9		µg/l	20.0		104	70-130			
1,2,4-Trimethylbenzene	16.9		µg/l	20.0		84.5	70-130			
2,2,4-Trimethylpentane	18.9		µg/l	20.0		94.5	70-130			
n-Butylcyclohexane	17.8		µg/l	20.0		89.0	70-130			
n-Decane	18.0		µg/l	20.0		90.0	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*48.5*		µg/l	*50.0*		*97.0*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*44.6*		µg/l	*50.0*		*89.2*	*70-130*			
LCS Dup (5100233-BSD1)				Prepared: 05-Oct-05 Analyzed: 06-Oct-05						
C5-C8 Aliphatic Hydrocarbons	130		mg/l	140		92.9	70-130	2.40	25	
C9-C12 Aliphatic Hydrocarbons	60.8		mg/l	55.0		111	70-130	0.00	25	
C9-C10 Aromatic Hydrocarbons	38.4		mg/l	40.0		96.0	70-130	23.9	25	
Unadjusted C5-C8 Aliphatic Hydrocarbons	259		mg/l	280		92.5	70-130	5.56	25	
Unadjusted C9-C12 Aliphatic Hydrocarbons	99.2		mg/l	85.0		117	70-130	8.93	25	
Benzene	18.3		µg/l	20.0		91.5	70-130	6.78	25	
Ethylbenzene	18.0		µg/l	20.0		90.0	70-130	11.8	25	
Methyl tert-butyl ether	18.7		µg/l	20.0		93.5	70-130	1.62	25	
Naphthalene	18.2		µg/l	20.0		91.0	70-130	3.24	25	
Toluene	18.6		µg/l	20.0		93.0	70-130	9.58	25	
m,p-Xylene	36.2		µg/l	40.0		90.5	70-130	10.1	25	
o-Xylene	18.6		µg/l	20.0		93.0	70-130	8.99	25	
2-Methylpentane	20.0		µg/l	20.0		100	70-130	11.1	25	
n-Nonane	21.2		µg/l	20.0		106	70-130	23.7	25	
n-Pentane	23.7		µg/l	20.0		118	70-130	12.6	25	
1,2,4-Trimethylbenzene	19.3		µg/l	20.0		96.5	70-130	13.3	25	
2,2,4-Trimethylpentane	23.5		µg/l	20.0		118	70-130	22.1	25	
n-Butylcyclohexane	22.4		µg/l	20.0		112	70-130	22.9	25	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100233 - VPH										
LCS Dup (5100233-BSD1)				Prepared: 05-Oct-05 Analyzed: 06-Oct-05						
n-Decane	23.8		µg/l	20.0		119	70-130	27.8	25	QR-02
Surrogate: 2,5-Dibromotoluene (FID)	*52.6*		µg/l	*50.0*		*105*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*47.2*		µg/l	*50.0*		*94.4*	*70-130*			
Duplicate (5100233-DUP1)	**Source: SA34983-01**			Prepared & Analyzed: 05-Oct-05						
C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l		BRL				50	
C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
C9-C10 Aromatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL	0.0750	mg/l		0.0201			5.10	50	
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL	0.0250	mg/l		BRL				50	
Benzene	BRL	5.0	µg/l		BRL				50	
Ethylbenzene	BRL	5.0	µg/l		BRL				50	
Methyl tert-butyl ether	14.9	5.0	µg/l		15.8			5.86	50	
Naphthalene	BRL	5.0	µg/l		BRL				50	
Toluene	BRL	5.0	µg/l		BRL				50	
m,p-Xylene	BRL	10.0	µg/l		BRL				50	
o-Xylene	BRL	5.0	µg/l		BRL				50	
Surrogate: 2,5-Dibromotoluene (FID)	*50.7*		µg/l	*50.0*		*101*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*46.1*		µg/l	*50.0*		*92.2*	*70-130*			
Matrix Spike (5100233-MS1)	**Source: SA34983-01**			Prepared: 05-Oct-05 Analyzed: 06-Oct-05						
Benzene	17.6		µg/l	20.0	BRL	88.0	70-130			
Ethylbenzene	16.7		µg/l	20.0	BRL	83.5	70-130			
Methyl tert-butyl ether	17.6		µg/l	20.0	15.8	9.00	70-130			QM-07
Naphthalene	17.1		µg/l	20.0	BRL	85.5	70-130			
Toluene	17.4		µg/l	20.0	BRL	87.0	70-130			
m,p-Xylene	33.2		µg/l	40.0	BRL	83.0	70-130			
o-Xylene	17.1		µg/l	20.0	BRL	85.5	70-130			
2-Methylpentane	19.4		µg/l	20.0	BRL	97.0	70-130			
n-Nonane	18.6		µg/l	20.0	BRL	93.0	70-130			
n-Pentane	21.7		µg/l	20.0	BRL	108	70-130			
1,2,4-Trimethylbenzene	16.9		µg/l	20.0	BRL	84.5	70-130			
2,2,4-Trimethylpentane	20.9		µg/l	20.0	BRL	104	70-130			
n-Butylcyclohexane	17.3		µg/l	20.0	0.0	86.5	70-130			
n-Decane	17.5		µg/l	20.0	0.0	87.5	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*46.1*		µg/l	*50.0*		*92.2*	*70-130*			
Surrogate: 2,5-Dibromotoluene (PID)	*42.6*		µg/l	*50.0*		*85.2*	*70-130*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0510028 - 5100035										
Calibration Check (0510028-CCV1)				Prepared & Analyzed: 04-Oct-05						
C9-C18 Aliphatic Hydrocarbons	0.500		mg/l	0.600		83.3	75-125			
C19-C36 Aliphatic Hydrocarbons	0.606		mg/l	0.800		75.8	75-125			
C11-C22 Aromatic Hydrocarbons	1.88		mg/l	1.70		111	75-125			
Naphthalene	101		µg/l	100		101	80-120			
2-Methylnaphthalene	101		µg/l	100		101	80-120			
Acenaphthylene	108		µg/l	100		108	80-120			
Acenaphthene	106		µg/l	100		106	80-120			
Fluorene	106		µg/l	100		106	80-120			
Phenanthrene	119		µg/l	100		119	80-120			
Anthracene	105		µg/l	100		105	80-120			
Fluoranthene	111		µg/l	100		111	80-120			
Pyrene	110		µg/l	100		110	80-120			
Benzo (a) anthracene	105		µg/l	100		105	80-120			
Chrysene	109		µg/l	100		109	80-120			
Benzo (b) fluoranthene	109		µg/l	100		109	80-120			
Benzo (k) fluoranthene	120		µg/l	100		120	80-120			
Benzo (a) pyrene	117		µg/l	100		117	80-120			
Indeno (1,2,3-cd) pyrene	105		µg/l	100		105	80-120			
Dibenzo (a,h) anthracene	105		µg/l	100		105	80-120			
Benzo (g,h,i) perylene	97.7		µg/l	100		97.7	80-120			
Batch 5100035 - SW846 3510C										
Blank (5100035-BLK1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
C9-C18 Aliphatic Hydrocarbons	BRL	0.2	mg/l							
C19-C36 Aliphatic Hydrocarbons	BRL	0.2	mg/l							
C11-C22 Aromatic Hydrocarbons	BRL	0.2	mg/l							
Unadjusted C11-C22 Aromatic Hydrocarbons	BRL	0.2	mg/l							
Total Petroleum Hydrocarbons	BRL	0.2	mg/l							
Unadjusted Total Petroleum Hydrocarbons	BRL	0.2	mg/l							
Naphthalene	BRL	2.50	µg/l							
2-Methylnaphthalene	BRL	2.50	µg/l							
Acenaphthylene	BRL	2.50	µg/l							
Acenaphthene	BRL	2.50	µg/l							
Fluorene	BRL	2.50	µg/l							
Phenanthrene	BRL	2.50	µg/l							
Anthracene	BRL	2.50	µg/l							
Fluoranthene	BRL	2.50	µg/l							
Pyrene	BRL	2.50	µg/l							
Benzo (a) anthracene	BRL	2.50	µg/l							
Chrysene	BRL	2.50	µg/l							
Benzo (b) fluoranthene	BRL	2.50	µg/l							
Benzo (k) fluoranthene	BRL	2.50	µg/l							
Benzo (a) pyrene	BRL	2.50	µg/l							
Indeno (1,2,3-cd) pyrene	BRL	2.50	µg/l							
Dibenzo (a,h) anthracene	BRL	2.50	µg/l							
Benzo (g,h,i) perylene	BRL	2.50	µg/l							
Surrogate: 1-Chlorooctadecane	*15.0*		µg/l	*25.0*		*60.0*	*40-140*			
Surrogate: Ortho-Terphenyl	*12.0*		µg/l	*25.0*		*48.0*	*40-140*			
Surrogate: 2-Bromonaphthalene	*23.5*		µg/l	*40.0*		*58.8*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*21.0*		µg/l	*40.0*		*52.5*	*40-140*			
LCS (5100035-BS1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
C9-C18 Aliphatic Hydrocarbons	0.264	0.2	mg/l	0.600		44.0	40-140			
C19-C36 Aliphatic Hydrocarbons	0.446	0.2	mg/l	0.800		55.8	40-140			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100035 - SW846 3510C										
LCS (5100035-BS1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
C11-C22 Aromatic Hydrocarbons	1.20	0.2	mg/l	1.70		70.6	40-140			
Naphthalene	40.0	2.50	µg/l	100		40.0	40-140			
2-Methylnaphthalene	45.3	2.50	µg/l	100		45.3	40-140			
Acenaphthylene	53.8	2.50	µg/l	100		53.8	40-140			
Acenaphthene	51.0	2.50	µg/l	100		51.0	40-140			
Fluorene	56.0	2.50	µg/l	100		56.0	40-140			
Phenanthrene	72.2	2.50	µg/l	100		72.2	40-140			
Anthracene	64.0	2.50	µg/l	100		64.0	40-140			
Fluoranthene	73.6	2.50	µg/l	100		73.6	40-140			
Pyrene	73.2	2.50	µg/l	100		73.2	40-140			
Benzo (a) anthracene	87.0	2.50	µg/l	100		87.0	40-140			
Chrysene	74.1	2.50	µg/l	100		74.1	40-140			
Benzo (b) fluoranthene	87.4	2.50	µg/l	100		87.4	40-140			
Benzo (k) fluoranthene	80.1	2.50	µg/l	100		80.1	40-140			
Benzo (a) pyrene	82.5	2.50	µg/l	100		82.5	40-140			
Indeno (1,2,3-cd) pyrene	74.2	2.50	µg/l	100		74.2	40-140			
Dibenzo (a,h) anthracene	74.6	2.50	µg/l	100		74.6	40-140			
Benzo (g,h,i) perylene	68.9	2.50	µg/l	100		68.9	40-140			
Naphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200			
2-Methylnaphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200			
Surrogate: 1-Chlorooctadecane	*26.6*		µg/l	*50.0*		*53.2*	*40-140*			
Surrogate: Ortho-Terphenyl	*31.3*		µg/l	*50.0*		*62.6*	*40-140*			
Surrogate: 2-Bromonaphthalene	*29.2*		µg/l	*40.0*		*73.0*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*27.4*		µg/l	*40.0*		*68.5*	*40-140*			
Naphthalene Breakthrough	0.00		%				0-5			
2-Methylnaphthalene Breakthrough	0.00		%				0-5			
Fractionation Check Standard (5100035-BS2)				Prepared & Analyzed: 03-Oct-05						
C9-C18 Aliphatic Hydrocarbons	0.293	0.2	mg/l	0.600		48.8	40-140			
C19-C36 Aliphatic Hydrocarbons	0.464	0.2	mg/l	0.800		58.0	40-140			
C11-C22 Aromatic Hydrocarbons	1.15	0.2	mg/l	1.70		67.6	40-140			
Naphthalene	53.2	2.50	µg/l	100		53.2	40-140			
2-Methylnaphthalene	56.8	2.50	µg/l	100		56.8	40-140			
Acenaphthylene	61.7	2.50	µg/l	100		61.7	40-140			
Acenaphthene	58.3	2.50	µg/l	100		58.3	40-140			
Fluorene	62.6	2.50	µg/l	100		62.6	40-140			
Phenanthrene	65.1	2.50	µg/l	100		65.1	40-140			
Anthracene	68.7	2.50	µg/l	100		68.7	40-140			
Fluoranthene	65.8	2.50	µg/l	100		65.8	40-140			
Pyrene	66.8	2.50	µg/l	100		66.8	40-140			
Benzo (a) anthracene	63.1	2.50	µg/l	100		63.1	40-140			
Chrysene	63.9	2.50	µg/l	100		63.9	40-140			
Benzo (b) fluoranthene	57.7	2.50	µg/l	100		57.7	40-140			
Benzo (k) fluoranthene	56.1	2.50	µg/l	100		56.1	40-140			
Benzo (a) pyrene	69.2	2.50	µg/l	100		69.2	40-140			
Indeno (1,2,3-cd) pyrene	77.9	2.50	µg/l	100		77.9	40-140			
Dibenzo (a,h) anthracene	77.6	2.50	µg/l	100		77.6	40-140			
Benzo (g,h,i) perylene	78.9	2.50	µg/l	100		78.9	40-140			
Naphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200			
2-Methylnaphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200			
Surrogate: 1-Chlorooctadecane	*31.6*		µg/l	*50.0*		*63.2*	*40-140*			
Surrogate: Ortho-Terphenyl	*30.2*		µg/l	*50.0*		*60.4*	*40-140*			
Surrogate: 2-Bromonaphthalene	*25.6*		µg/l	*40.0*		*64.0*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*28.4*		µg/l	*40.0*		*71.0*	*40-140*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100035 - SW846 3510C										
LCS Dup (5100035-BSD1)				Prepared: 03-Oct-05 Analyzed: 04-Oct-05						
C9-C18 Aliphatic Hydrocarbons	0.262	0.2	mg/l	0.600		43.7	40-140	0.684	25	
C19-C36 Aliphatic Hydrocarbons	0.483	0.2	mg/l	0.800		60.4	40-140	7.92	25	
C11-C22 Aromatic Hydrocarbons	1.00	0.2	mg/l	1.70		58.8	40-140	18.2	25	
Naphthalene	34.4	2.50	µg/l	100		34.4	40-140	15.1	20	QC-1
2-Methylnaphthalene	40.0	2.50	µg/l	100		40.0	40-140	12.4	20	
Acenaphthylene	47.4	2.50	µg/l	100		47.4	40-140	12.6	20	
Acenaphthene	43.7	2.50	µg/l	100		43.7	40-140	15.4	20	
Fluorene	48.1	2.50	µg/l	100		48.1	40-140	15.2	20	
Phenanthrene	60.2	2.50	µg/l	100		60.2	40-140	18.1	20	
Anthracene	57.1	2.50	µg/l	100		57.1	40-140	11.4	20	
Fluoranthene	64.7	2.50	µg/l	100		64.7	40-140	12.9	20	
Pyrene	64.0	2.50	µg/l	100		64.0	40-140	13.4	20	
Benzo (a) anthracene	69.9	2.50	µg/l	100		69.9	40-140	21.8	20	QR-02
Chrysene	61.5	2.50	µg/l	100		61.5	40-140	18.6	20	
Benzo (b) fluoranthene	68.0	2.50	µg/l	100		68.0	40-140	25.0	20	QR-02
Benzo (k) fluoranthene	60.4	2.50	µg/l	100		60.4	40-140	28.0	20	QR-02
Benzo (a) pyrene	62.2	2.50	µg/l	100		62.2	40-140	28.1	20	QR-02
Indeno (1,2,3-cd) pyrene	52.0	2.50	µg/l	100		52.0	40-140	35.2	20	QR-02
Dibenzo (a,h) anthracene	52.3	2.50	µg/l	100		52.3	40-140	35.1	20	QR-02
Benzo (g,h,i) perylene	48.1	2.50	µg/l	100		48.1	40-140	35.6	20	QR-02
Naphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200	0.00	200	
2-Methylnaphthalene (aliphatic fraction)	0.000100		µg/l	100		0.000100	0-200	0.00	200	
Surrogate: 1-Chlorooctadecane	*32.3*		µg/l	*50.0*		*64.6*	*40-140*			
Surrogate: Ortho-Terphenyl	*26.5*		µg/l	*50.0*		*53.0*	*40-140*			
Surrogate: 2-Bromonaphthalene	*22.6*		µg/l	*40.0*		*56.5*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*22.1*		µg/l	*40.0*		*55.2*	*40-140*			
Naphthalene Breakthrough	0.00		%				0-5			
2-Methylnaphthalene Breakthrough	0.00		%				0-5			

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100207 - SW846 3005A										
Blank (5100207-BLK1)				Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	BRL	0.0150	mg/l							
LCS (5100207-BS1)				Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	1.02	0.0075	mg/l	1.00		102	85-115			
LCS Dup (5100207-BSD1)				Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	1.00	0.0075	mg/l	1.00		100	85-115	1.98	20	
Duplicate (5100207-DUP1)		**Source: SA34712-03**		Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	BRL	0.0150	mg/l		0.0063				20	
Matrix Spike (5100207-MS1)		**Source: SA34712-01**		Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	0.441	0.0150	mg/l	0.400	0.0621	94.7	75-125			
Matrix Spike Dup (5100207-MSD1)		**Source: SA34712-01**		Prepared: 04-Oct-05 Analyzed: 06-Oct-05						
Lead	0.437	0.0150	mg/l	0.400	0.0621	93.7	75-125	0.911	20	

Soluble Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5100197 - General Prep-Metal										
Blank (5100197-BLK1)				Prepared & Analyzed: 04-Oct-05						
Filtration	Lab Filtered	N/A								

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte	Average RF	CCRF	% D	Limit
Batch 0510028				
Calibration Check (0510028-CCV1)				
C9-C18 Aliphatic Hydrocarbons	1.87539E+08	1.56369E+08	-16.6	25.00
C19-C36 Aliphatic Hydrocarbons	1.4791E+08	1.12063E+08	-24.2	25.00
C11-C22 Aromatic Hydrocarbons	16870.2	16.4989	10.6	25.00
Naphthalene	4.41995	4.46017	0.910	20.00
2-Methylnaphthalene	3.27182	3.30166	0.912	20.00
Acenaphthylene	4.44533	4.78464	7.63	20.00
Acenaphthene	3.29074	3.477	5.66	20.00
Fluorene	3.74977	3.97551	6.02	20.00
Phenanthrene	4.51346	5.38655	19.3	20.00
Anthracene	5.42438	5.70854	5.24	20.00
Fluoranthene	5.53581	6.13553	10.8	20.00
Pyrene	5.81992	6.42307	10.4	20.00
Benzo (a) anthracene	4.78768	5.01937	4.84	20.00
Chrysene	5.74607	6.24244	8.64	20.00
Benzo (b) fluoranthene	4.98828	5.46063	9.47	20.00
Benzo (k) fluoranthene	5.41781	6.49553	19.9	20.00
Benzo (a) pyrene	4.97679	5.81953	16.9	20.00
Indeno (1,2,3-cd) pyrene	6.50267	6.85967	5.49	20.00
Dibenzo (a,h) anthracene	5.3953	5.68733	5.41	20.00
Benzo (g,h,i) perylene	5.6954	5.56424	-2.30	20.00

Notes and Definitions

LF	Lab Filtered
PH	Insufficient preservative to reduce the sample pH to less than 2.
QC-1	Analyte out of acceptance range.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrix	☐ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☐ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous (acid-preserved)	☐ N/A ☐ pH≤2 ☐ pH>2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples not received in Methanol or air-tight container	ml Methanol/g soil ☐ 1:1 +/-25% ☐ Other:
		☐ Samples received in Methanol: ☐ covering soil/sediment ☐ not covering soil/sediment	
		☐ Samples received in air-tight container:	
Temperature	☐ Received on ice ☐ Received at 4 ± 2 °C ☐ Other: °C		

Were all QA/QC procedures followed as required by the VPH method? Yes_____ No _____
Were any significant modifications made to the VPH method as specified in section 11.3? No *see below
Were all performance/acceptance standards for required QA/QC procedures achieved? Yes_____ No_____
* Yes, if PID and FID surrogate recoveries are listed as n/a, then that sample was run via GCMS using all QC criteria specified in the method

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrix	☐ Aqueous ☐ Soil ☐ Sediment ☐ Other	
Containers	☐ Satisfactory ☐ Broken ☐ Leaking	
Aqueous Preservative	☐ N/A ☐ pH≤2 ☐ pH>2 ☐ pH adjusted to <2 in lab	Comment:
Temperature	☐ Received on ice ☐ Received at 4 ± 2 °C ☐ Other: °C	

Were all QA/QC procedures followed as required by the EPH method? Yes_____ No _____
Were any significant modifications made to the EPH method as specified in Section 11.3? No
Were all performance/acceptance standards for required QA/QC procedures achieved? Yes_____ No_____

I attest 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.

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

MADEP MCP ANALYTICAL METHOD REPORT CERTIFICATION FORM

MADEP RTN [1]:					
This form provides certifications for the following Spectrum Analytical, Inc. work order #: SA34712					
Matrix	☐ Groundwater	☐ Soil/Sediment	☐ Drinking Water	☐ Other	
MCP SW-846 Methods Used	☐ 8260B	☐ 8151A	☐ 8330	☐ 6010B	☐ 7470A/1A
	☐ 8270C	☐ 8081A	☐ VPH	☐ 6020	☐ 9014M [2]
	☐ 8082	☐ 8021B	☐ EPH	☐ 7000S [3]	☐ 7196A

1 List Release Tracking Number (RTN), if known
2 M - SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 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 this report meet all the analytical 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 or EPH method conducted without significant modifications (see Section 11.3 of respective methods)?	☐ Yes ☐ No

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

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

All negative responses are addressed in a case narrative on the cover page of this report.

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.

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Date: 10/7/2005

SA 34712 MH

SPECTRUM ANALYTICAL, INC.
Formerly
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: CEA inc.
127 Hartwell St
West Bay/Sten, Ma, 01583
508-835-8822
Project Mgr.: Adam Last

Invoice To: CEA inc
* CEA special pricing Please.
P.O. No.: _____ RQN: _____

Project No.: CEA II 4600-01-00016
Site Name: McDonald's Newton,
Location: Rt. 128-S State: Ma
Sampler(s): Busch + Fernandes

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VPH	EPH	Soluble Lead	Tetra Ethyl Lead	QA Reporting Notes:
SA34712-01	SVE-1	9/22/05	1:00	G	GW	2	2	1		1	X	X	X	X	- Soluble Lead
-02	SVE-2		1:15				2				X				Samples need
-03	SVE-4		11:10				2	1		1	X	X	X	X	Lab Filtering
-04	SVE-7		12:00				2	[redacted]		1	X	[redacted]	X	X	Please.
-05	SVE-8		11:40				2	1		1	X	X	X	X	
-06	HVE-1		10:30				2				X				
-07	HVE-2		11:00				2	1		1	X	X	X	X	
-08	HVE-3		10:00				2	[redacted]		1	X	[redacted]	X	X	
-09	MW-7A		10:45				2	1		1	X	X	X	X	
-10	GT-2		10:15				2	[redacted]		1	X	[redacted]	X	X	

QA Reporting Notes (check if needed):
State specific reporting standards *if applicable, please list below.*
- [x] Provide MCP CAM Report
Were all field QC requirements met as per MADEP CAM Section 2.0?
[x] Yes [ ] No
(Response required for CAM report)

- [ ] Fax results when available to (____) _____
- [x] E-mail to aadion@cea-inc.com
EDD Format _____

Condition upon receipt: [ ] Iced [ ] Ambient [ ] °C 8°C

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	9/22/05	1:45
[signature]	[signature]	9/23/05	1715

CAM15 20

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34712 ✓

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Page 2 of 2

Special Handling:
- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: CEA Inc.
127 Hartwell St.
West Boylston, Ma, 01583
508-835-8822
Project Mgr.: Adam Last

Invoice To: CEA inc.
* CEA Special pricing Please.
P.O. No.: _____ RQN: _____

Project No.: CEA # 4600 - 01 - 00016
Site Name: McDonald's Newton,
Location: Rt 128 - S State: Ma
Sampler(s): Bush + Fernandes

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VPH	EPH	Soluble Lead	Tetra Ethyl Lead	QA Reporting Notes: (check if needed)
34712-11	DUP-1	9/22/05		G	GW	2	2	1		1	X	X	X	X	- lab Filter
↓ -12	trip blank					2	1				X				Soluble lead
															Samples Please.

State specific reporting standards *If applicable, please list below.*

☒ Provide MCP CAM Report
Were all field QC requirements met as per MADEP CAM Section 2.0?
☒ Yes ☐ No
(Response required for CAM report)

Relinquished by:	Received by:	Date:	Time:
		9/23/05	1:45
		9/23/05	1715

☐ Fax results when available to (____) _____
☒ E-mail to acadion@cea-inc.com
EDD Format _____
Condition upon receipt: ☐ Iced ☐ Ambient ☐ °C 8c

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076 • www.spectrum-analytical.com