



January 31, 2006

PN: 39459734

U.S. Environmental Protection Agency
RGP-NOI Processing
Municipal Assistance Unit
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**RE: Remediation General Permit – Notice of Intent
Exxon-branded Service Station
Former Facility #2634719
625 Fall River Avenue
Seekonk, Massachusetts
RTN 4-15651**

FEB -2 2006

To Whom It May Concern:

On behalf of ConocoPhillips Company (COP), URS Corporation (URS) is submitting the attached Remediation General Permit (RGP) – Notice of Intent (NOI) for the above referenced location, hereinafter the “Site”. The completed RGP – NOI application form is provided in **Appendix A**. This RGP – NOI pertains to a Category I – Petroleum Related Site Remediation, Sub-Category A, Gasoline Only Site. The Site is the Exxon-branded, former facility #2634719, located at 625 Fall River Avenue, Seekonk, Massachusetts. In September 2003, COP retained the responsibility from ExxonMobil Corporation for conducting environmental response actions at the Site. The location of the Site is illustrated on **Figure 1, Site Locus**. The Site features are depicted on **Figure 2, Site Map**.

The RGP-NOI is being requested for the discharge of recovered and treated petroleum-impacted groundwater. Initially, groundwater will be pumped from a single groundwater recovery well during pump tests to provide information for the design of a full scale groundwater pump and treat remediation system. During a 72-hour pump test, recovered groundwater will be treated through a series of bag filters and granular activated carbon adsorption vessels prior to discharge to the Runnins River, which discharges to the Barrington River. The Barrington River discharges to the Warren River, which ultimately discharges to the Atlantic Ocean via Narragansett Bay, located approximately seven miles south of the Site. The **Discharge Pathway & Receiving Waters Map** is depicted as **Figure 3**. Based on the results of pump testing, an appropriately designed groundwater pump and treat system will be implemented at the Site to remediate petroleum-impacted groundwater. The maximum discharge rate of treated groundwater from the pump test will not exceed 25 gallons per minute.

On December 6, 2005, a sample of untreated groundwater was collected from monitoring well MW-6 the



U.S. Environmental Protection Agency

January 31, 2006

Page 2 of 2

Based on the results of the analysis, the following volatile organic compounds (VOCs) or groups of VOCs were identified in the groundwater sample: benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), and tertiary-amyl methyl ether (TAME). The following metals were also detected: arsenic, cadmium, chromium, copper, lead, nickel, zinc and iron.

With the exception of chromium, the remaining seven metals were reported at concentrations exceeding the applicable Effluent Limitations published in Appendix III of the *Proposed Remediation General Permit Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts*. There are no known published 7Q10 values for the Runnins River, the Barrington River or the Warren River. According to Cindy DePapa of the Massachusetts Riverways Project, given the small size of these rivers, there was likely no available data to calculate a 7Q10 value. For this reason, the most conservative dilution factor range of 0 - 5 was used to calculate discharge ceiling limits for the detected metals.

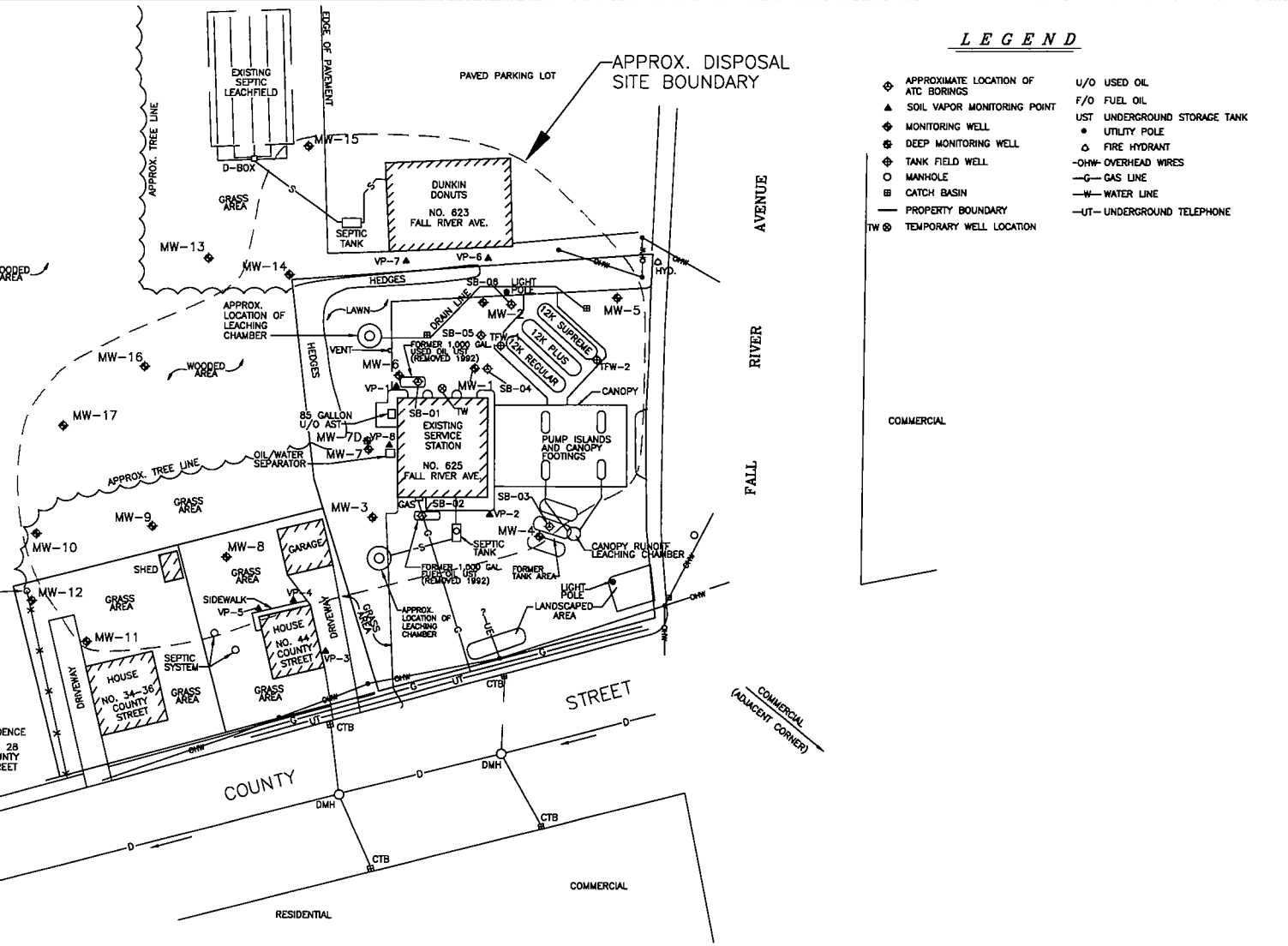
Given this dilution factor range, the metal concentrations detected in the December 2005 groundwater sample from MW-6 are compared to the published discharge limits for the dilution factor range of 0-5 as published in Appendix IV of the *Proposed Remediation General Permit Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts* in **Table 1**. Based on the comparison, the concentrations of arsenic, cadmium, copper, lead, nickel, zinc and iron were detected above the applicable discharge limit associated with the dilution factor range. Arsenic, cadmium, copper, nickel, iron and zinc are not associated with the release of gasoline or the use of the Site as a retail gasoline sales facility and likely occur naturally. As such, measures to reduce concentrations of these compounds are beyond the scope of remedial efforts to reduce gasoline related petroleum impacts to groundwater. Given that lead was removed from gasoline in the mid-1980s, it is likely that the lead concentration detected in the sample is also related to natural Site conditions. In addition, the Runnins River is listed as a 303d water body for lead among other criteria. Refer to the RGP – NOI application for the other 303d criteria. If the EPA deems the reduction of any of these metals in the effluent stream is necessary, alternatives will be evaluated and implemented in a timely manner.

If you have any questions or comments regarding this RGP-NOI, please do not hesitate to contact the undersigned at (603) 893-0616.

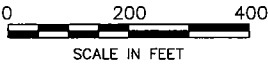
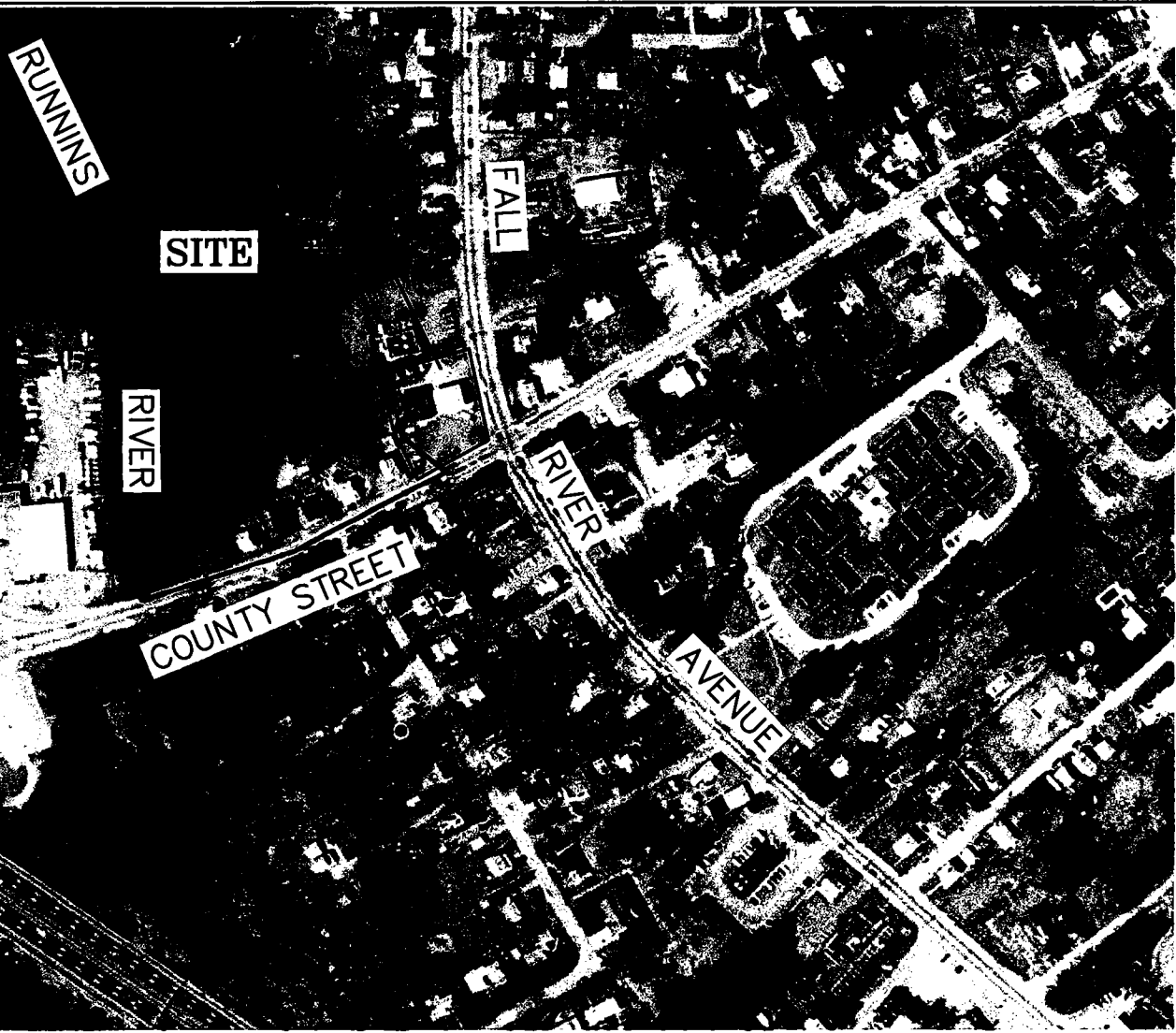
Sincerely,

URS CORPORATION

FIGURES



050100 SCALE, FEET	PROJECT NO: 39459730		CLIENT: ConocoPhillips Company	TITLE: SITE MAP	FIGURE NO: 2		
	DESIGN: CAM	SCALE: 1"=50'	PROJECT: 625 FALL RIVER AVE SEEKONK, MA				
	APPROVED: --	DATE: DEC 2005					
	DRAWN: CAM	FILE NO: SEEKONK, MA					



PROJECT NO: 39459730	
DESIGN: CAM	SCALE: 1"=200'
APPROVED: GJG	DATE: DEC 2005
DRAWN: CAM	FILE NO: SEEKONK

CLIENT: ConocoPhillips Company
PROJECT: 625 FALL RIVER AVE SEEKONK, MASSACHUSETTS

TITLE: DISCHARGE PATHWAY & RECEIVING WATERS MAP
--

DRAWING NO.: 3

TABLE

Table 1

Remediation General Permit - Notice of Intent Application
Metals Analytical Results and Discharge Concentration Limits, Dilution Factor 0-5
Former Exxon Mobile Store #2634719
625 Fall River Avenue, Seekonk, MA

Mercury (ug/l)	Iron (ug/l)	Arsenic (ug/l)	Selenium (ug/l)	Antimony (ug/l)	Cadmium (ug/l)	Chromium III (ug/l)	Chromium IV (ug/l)	Copper (ug/l)	Lead (ug/l)	Nickel (ug/l)	Zinc (ug/l)	Silver (ug/l)
0.9	1,000	10	5.0	5.6	0.2	48.8	11.4	5.2	1.3	29.0	66.6	1.2
<0.2	30,000	19	<5.0	<2.0	3.7	30	<20	40	25.0	34	120	<0.2
micrograms per liter (µg/l)												
below detection limit.												

APPENDIX A
RGP-NOI Application Form

Notice of Intent (NOI) for the Remediation General Permit

Please provide the following information about the site:

534719		Facility/site address: 625 Fall River Avenue	
48	Facility SIC code(s):	Street: 625 Fall River Avenue	
Gabriel Pacheco		Town: Seekonk	
		State: MA	Zip: 02771
Tel: (866) 425-6731		County:	
		Owner is (check one): 1. Federal 2. State/Tribal	
On site):		3. Private ☒ 4. other, if so, describe:	
	State:	Zip:	County:
		Operator telephone no: (908) 523-6072	
		Operator fax no.: (908) 523-6989	Operator email: louis.s.mosconi@conocophillips.com
Louis S. Mosconi, CPG, Area Manager			

owner):	Street: 1400 Park Avenue		
	State: NJ	Zip: 07036	County:
ing: on been granted for the discharge? Yes No ✓, if "yes," number: rm 1 & 2C) ever been filed for the discharge? Yes No ✓, if "yes," date and tracking #: as defined by 40 CFR 122.2? Yes No ✓ ischarge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ✓ No permitting or other action which is causing the state of NH or MA: RTN 4-15651 ame, location, and telephone number: eville, MA 508-946-2700			
		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:	

provide information about the discharge, (attaching additional sheets as needed) including:

r which the owner/applicant is seeking coverage: a single groundwater recovery well during pump testing. Recovered groundwater will be treated through a series of bag filters and on vessels prior to discharge.	
) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow 3.34 verage flow 1.74 Is maximum flow a design value ? Y ✓ N or average flow, include the units and appropriate notation if this value is a design value or estimate if not available.	
harge within 100 feet: pt.1:long. 74 20 lat. 42 48 ; pt.2: long. lat. ; pt.3: long. lat. ; g. lat. ; pt.6:long. lat. ; pt.7: long. lat. ; pt.8:long. lat. ; etc.	

of the discharge (gals):	5) Is the discharge intermittent ☒ or seasonal _____? Is discharge ongoing Yes _____ No ☒ ?
Id/yy): start 02/01/06 end 03/01/06	
w schematic showing water flow through the facility including: iting flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

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 listed chemicals 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. 10 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Prevention; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was obtained in accordance with the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

For each sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Other Discharges	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

For each chemical listed in Appendix III, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential discharge as needed.

Believed Present/Absent	Believe Present	# of Samples (1 minimum)	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)
	X	1	grab		10 mg/l	1400 mg/l			
	X	1	grab	330.1	0.05 mg/l	0.11 mg/l			
	X	1	grab	1664A	4.0 mg/l	ND			
X		1	grab	335.2	0.005 mg/l	ND			
	X	1	grab	624	0.244 ug/l	130			
X		1	grab	624	0.231 ug/l	ND			
X		1	grab	624	0.281 ug/l	ND			
X		1	grab	624	10 ug/l	ND			
	X	1	grab	624	10 ug/l	130			

1 f Benzene, Toluene, Ethylbenzene, total Xylenes.

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)
X		1	grab	504	0.019ug/l	ND			
	X	1	grab	624	0.848 ug/l	61,000			
	X	1	grab	624	11.607 ug/l	5,000			
	X	1	grab	624	0.205 ug/l	530			
		1	grab	8270C	0.37 ug/l	ND			
		1	grab	624	0.250 ug/l	ND			
		1	grab	624	0.308 ug/l	ND			
		1	grab	624	0.333 ug/l	ND			
		1	grab	624	0.402 ug/l	ND			
		1	grab	624	0.298 ug/l	ND			
		1	grab	624	0.313 ug/l	ND			
		1	grab	624	5.0 ug/l	ND			
		1	grab	624	5.0 ug/l	ND			
		1	grab	624	1.429 ug/l	ND			
		1	grab	624	5.0 ug/l	ND			

Water contaminant at fuel spill and pesticide application sites in New England.

Permit - Notice of Intent

Believe Absent	Believe Present	# of Samples (1 minimum)	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)
X		1	grab	624	0.303 ug/l	ND			
X		1	grab	624	0.429 ug/l	ND			
X		1	grab	624	5.0 ug/l	ND			
X		1	grab	624	0.488 ug/l	ND			
X		1	grab	624	50 ug/l	ND			
X		1	grab	624	249.508 ug/l	ND			
X		1	grab	624		ND			
X		1	grab	8270M	3.80 ug/l	ND			
	X	1	grab	8270C	048 ug/l	ND			
X		1	grab	8270C	0.28 ug/l	ND			
X		1	grab	8270C	0.54 ug/l	ND			
X		1	grab	8270C	0.78 ug/l	ND			
C		1	grab	8270C	0.41 ug/l	ND			
C		1	grab	8270C	0.44 ug/l	ND			

vidual phthalate compounds.

ermit - Notice of Intent

Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
						concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
X		1	grab	8270C	0.65 ug/l	ND			
X		1	grab	8270C	0.71 ug/l	ND			
X		1	grab	8270C	0.48 ug/l	ND			
X		1	grab	8270C	0.37 ug/l	ND			
X		1	grab	8270C	0.23 ug/l	ND			
X		1	grab	8270C	0.75 ug/l	ND			
X		1	grab	8270M	0.31 ug/l	ND			
X		1	grab	8270C	0.39 ug/l	ND			
	X	1	grab	8270C	0.37 ug/l	33			
		1	grab	8270C	0.37 ug/l	ND			
		1	grab	8270C	0.25 ug/l	ND			
		1	grab	608	0.258 ug/l	ND			
		1	grab	200.9	2.0 ug/l	ND			
	X	1	grab	200.7	5.0 ug/l	19			
	X	1	grab	213.2	0.2 ug/l	3.7			
	X	1	grab	200.7	10.0 ug/l	30			
		1	grab	3500	20 ug/l	ND			

Believe Absent	Believe Present	# of Samples (1 minimum)	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)
	X	1	grab	200.7	10 ug/l	40			
	X	1	grab	200.9	0.5 ug/l	25			
X		1	grab	245.2	0.2 ug/l	ND			
	X	1	grab	200.7	25 ug/l	34			
X		1	grab	200.7	5.0 ug/l	ND			
X		1	grab	200.7	0.2 ug/l	ND			
	X	1	grab	200.7	50 ug/l	120			
	X	1	grab	200.7	50 ug/l	30,000			

If metals are believed present, please fill out the following:

Do the metals in the influent have a reasonable potential to exceed the limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y <u>X</u> N <u> </u>	If yes, which metals? Arsenic, Cadmium, Copper, Lead, Nickel, Zinc, and Iron
Do the metals in the effluent have reasonable potential to exceed the Appendix III limits, DF using the formula in Part I.A.3.c) (step 2) of the NOI by the State prior to the submission of this NOI. If yes, list which metals? <u>Copper, Lead, Nickel, Zinc and Iron</u>	Look up the limit calculated at the corresponding dilution factor in Appendix IV . Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y <u>X</u> N <u> </u> If "Yes," list which metals: Arsenic, Cadmium, Copper, Lead, Nickel, Zinc and Iron

tion. Please describe the treatment system using separate sheets as necessary, including:

ent system, including a schematic of the proposed or existing treatment system:

Frac. tank	X	Air stripper	Oil/water separator	Equalization tanks	Bag filter	X	GAC filter	X
Chlorination		Dechlorination	Other (please describe):					

imum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system:
ge 25 gpm Maximum flow rate of treatment system 50 gpm Design flow rate of treatment system 25 gpm

additives being used or planned to be used (attach MSDS sheets): NA

. Please provide information about the receiving water(s), using separate sheets as necessary:

way:	Direct	X	Within facility		Storm drain		River/brook		Wetlands		Other (describe):
------	--------	---	-----------------	--	-------------	--	-------------	--	----------	--	-------------------

tion of the discharge pathway, including the name(s) of the receiving waters:
idwater will be discharged to the Runnins River located west of the site and will ultimately run into Naragannesett Bay.

dicating the site location and location of the outfall to the receiving water:
mber the discharges sequentially.
dicate the location of the discharge to the indirect conveyance and the discharge to surface water
he location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical
ters, drinking water supplies, and wetland areas.

lity classification of the receiving water Class B

ulated seven day-ten year low flow (7Q10) of the receiving water Not Applicable cfs
sheets used to support stream flow and dilution calculations.

d 303(d) water quality impaired or limited water? Yes X No If yes, for which pollutant(s)?
No X If yes, for which pollutant(s)?
Nutrients, Organic Enrichment, Pathogens, Oil & Grease, fecal coliform bacteria, biodiversity, hypoxia and lead

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

1 or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒
the federal services been completed? No ☒ or is consultation underway? Yes ☐ No ☒
e consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): ☐ or written concurrence ☐ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
ies listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☒

II. :

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

: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the

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

: ConocoPhillips Facility #2634719 <i>Louis S. Prosser</i> MANAGER 2005
--

APPENDIX B

Laboratory Analytical Reports

ALPHA ANALYTICAL LABORATORIES

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

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

CERTIFICATE OF ANALYSIS

Client: URS Corporation Laboratory Job Number: L0514818
Address: 5 Industrial Way
Salem, NH 03079 Date Received: 06-DEC-2005
Attn: Mr. Jared Urban Date Reported: 13-DEC-2005
Project Number: 39459731 Delivery Method: Client
Site: SEEKONK COP

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0514818-01	MW-6	628 FULL RIVER AVE

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0514818

Volatile Organics

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

L0514818-01 (40X,500X)

S

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0514818-01 Date Collected: 06-DEC-2005 12:00
MW-6 Date Received : 06-DEC-2005
Sample Matrix: WATER Date Reported : 13-DEC-2005
Condition of Sample: Satisfactory Field Prep: None
Number & Type of Containers: 10-Amber,4-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE		ID
						PREP	ANAL	
Solids, Total Suspended	1400	mg/l	10.	4	160.2		1208 15:35	DT
Cyanide, Total	ND	mg/l	0.005	4	335.2	1208 10:15	1208 18:11	DD
Chlorine, Total Residual	0.11	mg/l	0.05	4	330.1		1206 19:45	DP
TPH	ND	mg/l	4.00	74	1664A	1209 11:30	1212 11:30	AT
Phenolics, Total	ND	mg/l	0.03	4	420.1		1207 09:00	AT
Chromium, Hexavalent	ND	mg/l	0.02	30	3500CR-D	1206 20:00	1206 20:00	JT
Total Metals				19	200.7			
Antimony, Total	ND	mg/l	0.002	3	200.9	1207 18:00	1208 14:45	PY
Arsenic, Total	0.019	mg/l	0.005	19	200.7	1207 18:00	1212 11:03	RW
Cadmium, Total	0.0037	mg/l	0.0002	4	213.2	1207 18:00	1208 17:18	PY
Chromium, Total	0.03	mg/l	0.01	19	200.7	1207 18:00	1212 11:03	RW
Copper, Total	0.04	mg/l	0.01	19	200.7	1207 18:00	1212 11:03	RW
Iron, Total	30.	mg/l	0.05	19	200.7	1207 18:00	1212 11:03	RW
Lead, Total	0.0250	mg/l	0.0005	3	200.9	1207 18:00	1212 21:54	PY
Mercury, Total	ND	mg/l	0.0002	4	245.2	1208 17:05	1209 09:31	DM
Nickel, Total	0.034	mg/l	0.025	19	200.7	1207 18:00	1212 11:03	RW
Selenium, Total	ND	mg/l	0.005	19	200.7	1207 18:00	1212 11:03	RW
Silver, Total	ND	mg/l	0.0002	4	272.2	1207 18:00	1208 19:33	PY
Zinc, Total	0.120	mg/l	0.050	19	200.7	1207 18:00	1212 11:03	RW
Pesticides by GC 504				14	504.1		1213 10:27	JB
1,2-Dibromoethane	ND	ug/l	0.020					
Volatile Organics by GC/MS 624				5	624		1208 09:35	MM
Methylene chloride	ND	ug/l	100					

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0514818-01
 MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 624 cont'd				5 624		1208 09:35 MM	
Tetrachloroethene	ND	ug/l	30.				
Chlorobenzene	ND	ug/l	70.				
Trichlorofluoromethane	ND	ug/l	100				
1,2-Dichloroethane	ND	ug/l	30.				
1,1,1-Trichloroethane	ND	ug/l	40.				
Bromodichloromethane	ND	ug/l	20.				
trans-1,3-Dichloropropene	ND	ug/l	30.				
cis-1,3-Dichloropropene	ND	ug/l	30.				
Bromoform	ND	ug/l	20.				
1,1,2,2-Tetrachloroethane	ND	ug/l	20.				
Benzene	130	ug/l	20.				
Toluene	ND	ug/l	20.				
Ethylbenzene	ND	ug/l	20.				
Chloromethane	ND	ug/l	200				
Bromomethane	ND	ug/l	100				
Vinyl chloride	ND	ug/l	40.				
Chloroethane	ND	ug/l	40.				
1,1-Dichloroethene	ND	ug/l	20.				
trans-1,2-Dichloroethene	ND	ug/l	30.				
cis-1,2-Dichloroethene	ND	ug/l	20.				
Trichloroethene	ND	ug/l	20.				
1,2-Dichlorobenzene	ND	ug/l	100				
1,3-Dichlorobenzene	ND	ug/l	100				
1,4-Dichlorobenzene	ND	ug/l	100				
p/m-Xylene	ND	ug/l	40.				
o-xylene	ND	ug/l	20.				
Xylene (Total)	ND	ug/l	40.				
Styrene	ND	ug/l	20.				
Acetone	ND	ug/l	200				
Carbon disulfide	ND	ug/l	100				
2-Butanone	ND	ug/l	200				
Vinyl acetate	ND	ug/l	400				
4-Methyl-2-pentanone	ND	ug/l	200				
2-Hexanone	ND	ug/l	200				
Acrolein	ND	ug/l	160				
Acrylonitrile	ND	ug/l	200				
Methyl tert butyl ether	>4000	ug/l	400				
1,4-Dioxane	ND	ug/l	40000				
Tert-Butyl Alcohol	5000	ug/l	2000				
Tertiary-Amyl Methyl Ether	530	ug/l	400				

Surrogate(s)

Recovery

QC Criteria

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0514818-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 624 cont'd				5 624		1209 20:30 MM	
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	94.0	%	80-120				
Fluorobenzene	98.0	%	80-120				
4-Bromofluorobenzene	105.	%	80-120				
SVOC's by GC/MS 8270				1 8270C		1209 17:00 1212 18:36 RL	
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
1-Chloronaphthalene	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	10.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	10.				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0514818-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1209 17:00	1212 18:36	RL
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Benzo(e)pyrene	ND	ug/l	5.0				
Biphenyl	ND	ug/l	5.0				
Perylene	ND	ug/l	5.0				
Aniline	ND	ug/l	10.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
a,a-Dimethylphenethylamine	ND	ug/l	50.				
Hexachloropropene	ND	ug/l	10.				
Nitrosodi-n-butylamine	ND	ug/l	10.				
2-Methylnaphthalene	ND	ug/l	5.0				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	20.				
Pentachlorobenzene	ND	ug/l	20.				
a-Naphthylamine	ND	ug/l	20.				
b-Naphthylamine	ND	ug/l	20.				
Phenacetin	ND	ug/l	10.				
Dimethoate	ND	ug/l	20.				
4-Aminobiphenyl	ND	ug/l	10.				
Pentachloronitrobenzene	ND	ug/l	10.				
Isodrin	ND	ug/l	10.				
p-Dimethylaminoazobenzene	ND	ug/l	10.				
Chlorobenzilate	ND	ug/l	20.				
3-Methylcholanthrene	ND	ug/l	20.				
Ethyl Methanesulfonate	ND	ug/l	15.				
Acetophenone	ND	ug/l	20.				
Nitrosodipiperidine	ND	ug/l	20.				
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10.				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
p-Chloro-m-cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	20.				

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0514818-01
 MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1209 17:00	1212 18:36	RL
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				
2-Picoline	ND	ug/l	20.				
Pronamide	ND	ug/l	20.				
Methyl methanesulfonate	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	36.0	%	21-120				
Phenol-d6	29.0	%	10-120				
Nitrobenzene-d5	78.0	%	23-120				
2-Fluorobiphenyl	73.0	%	43-120				
2,4,6-Tribromophenol	86.0	%	10-120				
4-Terphenyl-d14	95.0	%	33-120				
PAH by GC/MS SIM 8270M				1 8270C-M	1209 17:00	1212 21:36	RL
Acenaphthene	ND	ug/l	0.20				
2-Chloronaphthalene	ND	ug/l	0.20				
Fluoranthene	ND	ug/l	0.20				
Hexachlorobutadiene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	0.20				
Benzo(a)anthracene	ND	ug/l	0.20				
Benzo(a)pyrene	ND	ug/l	0.20				
Benzo(b)fluoranthene	ND	ug/l	0.20				
Benzo(k)fluoranthene	ND	ug/l	0.20				
Chrysene	ND	ug/l	0.20				
Acenaphthylene	ND	ug/l	0.20				
Anthracene	ND	ug/l	0.20				
Benzo(ghi)perylene	ND	ug/l	0.20				
Fluorene	ND	ug/l	0.20				
Phenanthrene	ND	ug/l	0.20				
Dibenzo(a,h)anthracene	ND	ug/l	0.20				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.20				
Pyrene	ND	ug/l	0.20				
1-Methylnaphthalene	ND	ug/l	0.20				
2-Methylnaphthalene	ND	ug/l	0.20				
Pentachlorophenol	ND	ug/l	0.80				
Hexachlorobenzene	ND	ug/l	0.80				
Perylene	ND	ug/l	0.20				
Biphenyl	ND	ug/l	0.20				
2,6-Dimethylnaphthalene	ND	ug/l	0.20				

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0514818-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
PAH by GC/MS SIM 8270M cont'd				1 8270C-M	1209 17:00	1212 21:36	RL
Nitrobenzene-d5	89.0	%	23-120				
2-Fluorobiphenyl	76.0	%	43-120				
2,4,6-Tribromophenol	66.0	%	10-120				
4-Terphenyl-d14	78.0	%	33-120				
Polychlorinated Biphenyls				5 608	1209 14:20	1213 09:02	SS
Aroclor 1221	ND	ug/l	0.250				
Aroclor 1232	ND	ug/l	0.250				
Aroclor 1242/1016	ND	ug/l	0.250				
Aroclor 1248	ND	ug/l	0.250				
Aroclor 1254	ND	ug/l	0.250				
Aroclor 1260	ND	ug/l	0.250				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	54.0	%	30-150				
Decachlorobiphenyl	55.0	%	30-150				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0514818

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Cyanide, Total for sample(s) 01 (L0514501-03, WG223194-4)					
Cyanide, Total	0.008	0.007	mg/l	0	30
Chlorine, Total Residual for sample(s) 01 (L0514818-01, WG222995-3)					
Chlorine, Total Residual	0.11	0.12	mg/l	9	
TPH for sample(s) 01 (L0514815-01, WG223473-4)					
TPH	ND	ND	mg/l	NC	34
Phenolics, Total for sample(s) 01 (L0514815-01, WG223110-4)					
Phenolics, Total	0.05	0.05	mg/l	8	
Chromium, Hexavalent for sample(s) 01 (L0514818-01, WG223008-4)					
Chromium, Hexavalent	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0514818-01, WG223114-1)					
Antimony, Total	ND	ND	mg/l	NC	
Arsenic, Total	0.019	0.019	mg/l	1	
Cadmium, Total	0.0037	0.0038	mg/l	3	
Chromium, Total	0.03	0.03	mg/l	4	
Copper, Total	0.04	0.04	mg/l	2	
Iron, Total	30.	28.	mg/l	7	
Lead, Total	0.0250	0.0249	mg/l	0	
Nickel, Total	0.034	0.033	mg/l	3	
Selenium, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Zinc, Total	0.120	0.117	mg/l	3	
Total Metals for sample(s) 01 (L0514847-01, WG223253-3)					
Mercury, Total	0.0043	0.0044	mg/l	2	
Volatile Organics by GC/MS 624 for sample(s) 01 (L0514925-01, WG223357-2)					
Benzene	ND	ND	ug/l	NC	30
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
p/m-Xylene	ND	ND	ug/l	NC	30
o-Xylene	ND	ND	ug/l	NC	30
XYLENE (TOTAL)	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	97.0	99.0	%	2	80-120
Fluorobenzene	102.	101.	%	1	80-120
4-Bromofluorobenzene	111	107	%	4	80-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0514818

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Polychlorinated Biphenyls for sample(s) 01 (L0514818-01, WG223388-4)					
Aroclor 1254	ND	ND	ug/l	NC	30
Aroclor 1260	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	54.0	51.0	%	6	30-150
Decachlorobiphenyl	55.0	59.0	%	7	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 01 (WG223194-2)		
Cyanide, Total	98	90-110
Chlorine, Total Residual LCS for sample(s) 01 (WG222995-2)		
Chlorine, Total Residual	100	
TPH LCS for sample(s) 01 (WG223473-2)		
TPH	85	64-132
Phenolics, Total LCS for sample(s) 01 (WG223110-2)		
Phenolics, Total	89	
Chromium, Hexavalent LCS for sample(s) 01 (WG223008-2)		
Chromium, Hexavalent	106	
Total Metals LCS for sample(s) 01 (WG223114-4)		
Antimony, Total	103	
Arsenic, Total	101	
Cadmium, Total	109	
Chromium, Total	95	
Copper, Total	88	
Iron, Total	94	
Lead, Total	107	
Nickel, Total	95	
Selenium, Total	106	
Silver, Total	114	
Zinc, Total	96	
Total Metals LCS for sample(s) 01 (WG223253-1)		
Mercury, Total	98	
Pesticides by GC 504 LCS for sample(s) 01 (WG223665-2)		
1,2-Dibromoethane	98	
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG223357-3)		
Methylene chloride	92	10-221
1,1-Dichloroethane	94	59-155
Chloroform	93	51-138
Carbon tetrachloride	96	70-140
1,2-Dichloropropane	90	10-210
Dibromochloromethane	90	53-149
1,1,2-Trichloroethane	98	52-150
2-Chloroethylvinyl ether	87	10-305

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG223357-3)		
trans-1,3-Dichloropropene	70	17-183
cis-1,3-Dichloropropene	88	10-227
Bromoform	90	45-169
1,1,2,2-Tetrachloroethane	100	46-157
Benzene	94	37-151
Toluene	94	47-150
Ethylbenzene	106	37-162
Chloromethane	85	10-273
Bromomethane	76	10-242
Vinyl chloride	108	10-251
Chloroethane	79	14-230
1,1-Dichloroethene	88	10-234
trans-1,2-Dichloroethene	94	54-156
cis-1,2-Dichloroethene	95	60-140
Trichloroethene	90	71-157
1,2-Dichlorobenzene	110	18-190
1,3-Dichlorobenzene	108	59-156
1,4-Dichlorobenzene	110	18-190
p/m-Xylene	114	40-160
o-Xylene	108	40-160
XYLENE (TOTAL)	112	40-160
Styrene	97	40-160
Acetone	70	40-160
Carbon disulfide	86	40-160
2-Butanone	76	40-160
Vinyl acetate	82	40-160
4-Methyl-2-pentanone	80	40-160
2-Hexanone	74	40-160
Acrolein	62	40-160
Acrylonitrile	88	40-160
Surrogate(s)		
Pentafluorobenzene	102	80-120
Fluorobenzene	99	80-120
4-Bromofluorobenzene	111	80-120
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG223357-5)		
Methylene chloride	94	10-221
1,1-Dichloroethane	97	59-155
Chloroform	88	51-138
Carbon tetrachloride	88	70-140
1,2-Dichloropropane	100	10-210

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG223357-5)		
1,2-Dichloroethane	91	49-155
1,1,1-Trichloroethane	95	52-162
Bromodichloromethane	89	35-155
trans-1,3-Dichloropropene	88	17-183
cis-1,3-Dichloropropene	96	10-227
Bromoform	92	45-169
1,1,2,2-Tetrachloroethane	95	46-157
Benzene	102	37-151
Toluene	99	47-150
Ethylbenzene	107	37-162
Chloromethane	108	10-273
Bromomethane	88	10-242
Vinyl chloride	101	10-251
Chloroethane	111	14-230
1,1-Dichloroethene	97	10-234
trans-1,2-Dichloroethene	98	54-156
cis-1,2-Dichloroethene	100	60-140
Trichloroethene	100	71-157
1,2-Dichlorobenzene	100	18-190
1,3-Dichlorobenzene	101	59-156
1,4-Dichlorobenzene	102	18-190
p/m-Xylene	110	40-160
o-Xylene	110	40-160
XYLENE (TOTAL)	110	40-160
Styrene	95	40-160
Acetone	96	40-160
Carbon disulfide	90	40-160
2-Butanone	89	40-160
Vinyl acetate	129	40-160
4-Methyl-2-pentanone	102	40-160
2-Hexanone	95	40-160
Acrolein	105	40-160
Acrylonitrile	109	40-160
Surrogate(s)		
Pentafluorobenzene	105	80-120
Fluorobenzene	105	80-120
4-Bromofluorobenzene	105	80-120
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG223393-2)		
Acenaphthene	77	46-118
1,2,4-Trichlorobenzene	70	30-98

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG223393-2)		
4-Chlorophenyl phenyl ether	80	40-140
n-Nitrosodi-n-propylamine	62	41-116
Butyl benzyl phthalate	85	40-140
Anthracene	57	40-140
Pyrene	80	26-127
Hexachloropropene	64	40-140
P-Chloro-M-Cresol	76	23-97
2-Chlorophenol	61	27-123
2-Nitrophenol	72	30-130
4-Nitrophenol	36	10-80
2,4-Dinitrophenol	79	30-130
Pentachlorophenol	73	9-103
Phenol	22	12-110
Surrogate(s)		
2-Fluorophenol	34	21-120
Phenol-d6	28	10-120
Nitrobenzene-d5	67	23-120
2-Fluorobiphenyl	76	43-120
2,4,6-Tribromophenol	90	10-120
4-Terphenyl-d14	95	33-120
PAH by GC/MS SIM 8270M LCS for sample(s) 01 (WG223394-2)		
Acenaphthene	71	46-118
2-Chloronaphthalene	86	
Fluoranthene	90	
Anthracene	72	
Pyrene	83	26-127
Pentachlorophenol	81	9-103
Surrogate(s)		
2-Fluorophenol	47	21-120
Phenol-d6	36	10-120
Nitrobenzene-d5	85	23-120
2-Fluorobiphenyl	76	43-120
2,4,6-Tribromophenol	76	10-120
4-Terphenyl-d14	73	33-120
Polychlorinated Biphenyls LCS for sample(s) 01 (WG223388-2)		
Aroclor 1242/1016	62	30-150
Aroclor 1260	76	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Continued

Parameter	% Recovery QC Criteria	
Cyanide, Total SPIKE for sample(s) 01 (L0514501-01, WG223194-3)		
Cyanide, Total	200	80-120
TPH SPIKE for sample(s) 01 (L0514965-01, WG223473-3)		
TPH	84	64-132
Phenolics, Total SPIKE for sample(s) 01 (L0514542-03, WG223110-3)		
Phenolics, Total	91	
Chromium, Hexavalent SPIKE for sample(s) 01 (L0514828-04, WG223008-3)		
Chromium, Hexavalent	105	
Total Metals SPIKE for sample(s) 01 (L0514818-01, WG223114-2)		
Antimony, Total	86	
Arsenic, Total	101	
Cadmium, Total	110	
Chromium, Total	91	
Copper, Total	92	
Iron, Total	-200	
Lead, Total	111	
Nickel, Total	94	
Selenium, Total	102	
Silver, Total	113	
Zinc, Total	93	
Total Metals SPIKE for sample(s) 01 (L0514847-01, WG223253-2)		
Mercury, Total	118	
Pesticides by GC 504 SPIKE for sample(s) 01 (L0514815-01, WG223665-3)		
1,2-Dibromoethane	92	
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0514925-01, WG223357-1)		
Methylene chloride	89	10-221
1,1-Dichloroethane	90	59-155
Chloroform	90	51-138
Carbon tetrachloride	87	70-140
1,2-Dichloropropane	93	10-210
Dibromochloromethane	88	53-149
1,1,2-Trichloroethane	94	52-150
2-Chloroethylvinyl ether	77	10-305
Tetrachloroethene	90	64-148
Chlorobenzene	97	37-160
Trichlorofluoromethane	100	17-181

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0514818

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0514925-01, WG223357-1)		
1,1,2,2-Tetrachloroethane	97	46-157
Benzene	96	35-151
Toluene	87	47-150
Ethylbenzene	100	37-162
Chloromethane	97	10-273
Bromomethane	81	10-242
Vinyl chloride	98	10-251
Chloroethane	102	14-230
1,1-Dichloroethene	94	10-234
trans-1,2-Dichloroethene	92	54-156
cis-1,2-Dichloroethene	92	60-140
Trichloroethene	90	71-157
1,2-Dichlorobenzene	100	18-190
1,3-Dichlorobenzene	98	59-156
1,4-Dichlorobenzene	101	18-190
p/m-Xylene	104	40-160
o-Xylene	102	40-160
XYLENE (TOTAL)	103	40-160
Styrene	92	40-160
Acetone	78	40-160
Carbon disulfide	80	40-160
2-Butanone	90	40-160
Vinyl acetate	86	40-160
4-Methyl-2-pentanone	85	40-160
2-Hexanone	84	40-160
Acrolein	43	40-160
Acrylonitrile	93	40-160
Surrogate(s)		
Pentafluorobenzene	104	80-120
Fluorobenzene	105	80-120
4-Bromofluorobenzene	108	80-120
Polychlorinated Biphenyls SPIKE for sample(s) 01 (L0514818-01, WG223388-3)		
Aroclor 1242/1016	80	30-150
Aroclor 1260	82	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	56	30-150
Decachlorobiphenyl	58	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0514818

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
SVOC's by GC/MS 8270 for sample(s) 01 (L0514815-01, WG223393-4)					
Acenaphthene	72	72	0	30	46-118
1,2,4-Trichlorobenzene	72	72	0	30	39-98
2-Chloronaphthalene	77	77	0	30	40-140
1,2-Dichlorobenzene	62	58	7	30	40-140
1,4-Dichlorobenzene	58	58	0	30	36-97
2,4-Dinitrotoluene	82	86	5	30	24-96
2,6-Dinitrotoluene	86	86	0	30	40-140
Fluoranthene	82	86	5	30	40-140
4-Chlorophenyl phenyl ether	77	77	0	30	40-140
n-Nitrosodi-n-propylamine	58	58	0	30	41-116
Butyl benzyl phthalate	82	86	5	30	40-140
Anthracene	53	58	9	30	40-140
Pyrene	77	82	6	30	26-127
Hexachloropropene	77	77	0	30	40-140
P-Chloro-M-Cresol	74	74	0	30	23-97
2-Chlorophenol	60	58	3	30	27-123
2-Nitrophenol	70	67	4	30	30-130
4-Nitrophenol	62	55	12	30	10-80
2,4-Dinitrophenol	82	82	0	30	30-130
Pentachlorophenol	67	72	7	30	9-103
Phenol	36	34	6	30	12-110
Surrogate(s)					
2-Fluorophenol	44	38	15		21-120
Phenol-d6	46	41	11		10-120
Nitrobenzene-d5	61	61	0		23-120
2-Fluorobiphenyl	70	73	4		43-120
2,4,6-Tribromophenol	73	83	13		10-120
4-Terphenyl-d14	84	85	1		33-120
PAH by GC/MS SIM 8270M for sample(s) 01 (L0514815-01, WG223394-4)					
Acenaphthene	62	62	0	40	46-118
2-Chloronaphthalene	77	82	6	40	
Fluoranthene	77	86	11	40	
Anthracene	58	67	14	40	
Pyrene	91	96	5	40	26-127
Pentachlorophenol	86	96	11	40	9-103
Surrogate(s)					
2-Fluorophenol	74	63	16		21-120
Phenol-d6	69	63	9		10-120
Nitrobenzene-d5	90	92	2		23-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG223169-1)							
Solids, Total Suspended	ND	mg/l	5.0	4 160.2		1208 15:35	DT
Blank Analysis for sample(s) 01 (WG223194-1)							
Cyanide, Total	ND	mg/l	0.005	4 335.2	1208 10:15	1208 17:58	DD
Blank Analysis for sample(s) 01 (WG222995-1)							
Chlorine, Total Residual	ND	mg/l	0.05	4 330.1		1206 19:45	DP
Blank Analysis for sample(s) 01 (WG223473-1)							
TPH	ND	mg/l	4.00	74 1664A	1209 11:30	1212 11:30	AT
Blank Analysis for sample(s) 01 (WG223110-1)							
Phenolics, Total	ND	mg/l	0.03	4 420.1		1207 09:00	AT
Blank Analysis for sample(s) 01 (WG223008-1)							
Chromium, Hexavalent	ND	mg/l	0.02	30 3500CR-D	1206 20:00	1206 20:00	JT
Blank Analysis for sample(s) 01 (WG223114-3)							
Total Metals			19	200.7			
Antimony, Total	ND	mg/l	0.002	3 200.9	1207 18:00	1208 14:25	PY
Arsenic, Total	ND	mg/l	0.005	19 200.7	1207 18:00	1212 10:52	RW
Cadmium, Total	ND	mg/l	0.0002	4 213.2	1207 18:00	1208 17:03	PY
Chromium, Total	ND	mg/l	0.01	19 200.7	1207 18:00	1212 10:52	RW
Copper, Total	ND	mg/l	0.01	19 200.7	1207 18:00	1212 10:52	RW
Iron, Total	ND	mg/l	0.05	19 200.7	1207 18:00	1212 10:52	RW
Lead, Total	ND	mg/l	0.0005	3 200.9	1207 18:00	1212 21:34	PY
Nickel, Total	ND	mg/l	0.025	19 200.7	1207 18:00	1212 10:52	RW
Selenium, Total	ND	mg/l	0.005	19 200.7	1207 18:00	1212 10:52	RW
Silver, Total	ND	mg/l	0.0002	4 272.2	1207 18:00	1208 19:13	PY
Zinc, Total	ND	mg/l	0.050	19 200.7	1207 18:00	1212 10:52	RW
Blank Analysis for sample(s) 01 (WG223253-4)							
Total Metals							

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG223357-4)							
Volatile Organics by GC/MS. 624				5 624		1208 08:24 MM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE	ID
					PREP	ANAL
Blank Analysis for sample(s) 01 (WG223357-4)						
Volatile Organics by GC/MS 624 cont'd				5 624		1208 08:24 MM
Surrogate(s)	Recovery		QC Criteria			
Pentafluorobenzene	102.	%	80-120			
Fluorobenzene	103.	%	80-120			
4-Bromofluorobenzene	112.	%	80-120			
Blank Analysis for sample(s) 01 (WG223357-6)						
Volatile Organics by GC/MS 624				5 624		1209 14:26 MM
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	1.5			
Chloroform	ND	ug/l	1.5			
Carbon tetrachloride	ND	ug/l	1.0			
1,2-Dichloropropane	ND	ug/l	3.5			
Dibromochloromethane	ND	ug/l	1.0			
1,1,2-Trichloroethane	ND	ug/l	1.5			
2-Chloroethylvinyl ether	ND	ug/l	10.			
Tetrachloroethene	ND	ug/l	1.5			
Chlorobenzene	ND	ug/l	3.5			
Trichlorofluoromethane	ND	ug/l	5.0			
1,2-Dichloroethane	ND	ug/l	1.5			
1,1,1-Trichloroethane	ND	ug/l	2.0			
Bromodichloromethane	ND	ug/l	1.0			
trans-1,3-Dichloropropene	ND	ug/l	1.5			
cis-1,3-Dichloropropene	ND	ug/l	1.5			
Bromoform	ND	ug/l	1.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0			
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Chloromethane	ND	ug/l	10.			
Bromomethane	ND	ug/l	5.0			
Vinyl chloride	ND	ug/l	2.0			
Chloroethane	ND	ug/l	2.0			
1,1-Dichloroethene	ND	ug/l	1.0			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
cis-1,2-Dichloroethene	ND	ug/l	1.0			
Trichloroethene	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
p/m-Xylene	ND	ug/l	2.0			

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE	ID
					PREP	ANAL
Blank Analysis for sample(s) 01 (WG223357-6)						
Volatile Organics by GC/MS 624 cont'd				5 624		1209 14:26 MM
Vinyl acetate	ND	ug/l	20.			
4-Methyl-2-pentanone	ND	ug/l	10.			
2-Hexanone	ND	ug/l	10.			
Acrolein	ND	ug/l	8.0			
Acrylonitrile	ND	ug/l	10.			
Surrogate(s)	Recovery		QC Criteria			
Pentafluorobenzene	99.0	%	80-120			
Fluorobenzene	103.	%	80-120			
4-Bromofluorobenzene	102.	%	80-120			
Blank Analysis for sample(s) 01 (WG223393-1)						
SVOC's by GC/MS 8270				1 8270C		1209 17:00 1212 15:40 RL
Acenaphthene	ND	ug/l	5.0			
Benzidine	ND	ug/l	50.			
1,2,4-Trichlorobenzene	ND	ug/l	5.0			
Hexachlorobenzene	ND	ug/l	5.0			
Bis(2-chloroethyl)ether	ND	ug/l	5.0			
1-Chloronaphthalene	ND	ug/l	5.0			
2-Chloronaphthalene	ND	ug/l	6.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
3,3'-Dichlorobenzidine	ND	ug/l	50.			
2,4-Dinitrotoluene	ND	ug/l	6.0			
2,6-Dinitrotoluene	ND	ug/l	5.0			
Azobenzene	ND	ug/l	5.0			
Fluoranthene	ND	ug/l	5.0			
4-Chlorophenyl phenyl ether	ND	ug/l	5.0			
4-Bromophenyl phenyl ether	ND	ug/l	5.0			
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0			
Bis(2-chloroethoxy)methane	ND	ug/l	5.0			
Hexachlorobutadiene	ND	ug/l	10.			
Hexachlorocyclopentadiene	ND	ug/l	10.			
Hexachloroethane	ND	ug/l	5.0			
Isophorone	ND	ug/l	5.0			
Naphthalene	ND	ug/l	5.0			
Nitrobenzene	ND	ug/l	5.0			
NDPA/DPA	ND	ug/l	15.			
n-Nitrosodi-n-propylamine	ND	ug/l	5.0			

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG223393-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	1209 17:00	1212 15:40	RL
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Benzo(e)pyrene	ND	ug/l	5.0				
Biphenyl	ND	ug/l	5.0				
Perylene	ND	ug/l	5.0				
Aniline	ND	ug/l	10.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
a,a-Dimethylphenethylamine	ND	ug/l	50.				
Hexachloropropene	ND	ug/l	10.				
Nitrosodi-n-butylamine	ND	ug/l	10.				
2-Methylnaphthalene	ND	ug/l	5.0				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	20.				
Pentachlorobenzene	ND	ug/l	20.				
a-Naphthylamine	ND	ug/l	20.				
b-Naphthylamine	ND	ug/l	20.				
Phenacetin	ND	ug/l	10.				
Dimethoate	ND	ug/l	20.				
4-Aminobiphenyl	ND	ug/l	10.				
Pentachloronitrobenzene	ND	ug/l	10.				
Isodrin	ND	ug/l	10.				
p-Dimethylaminoazobenzene	ND	ug/l	10.				
Chlorobenzilate	ND	ug/l	20.				
3-Methylcholanthrene	ND	ug/l	20.				
Ethyl Methanesulfonate	ND	ug/l	15				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Blank Analysis for sample(s) 01 (WG223393-1)

SVOC's by GC/MS 8270 cont'd 1 8270C 1209 17:00 1212 15:40 RL

2-Chlorophenol	ND	ug/l	6.0
2,4-Dichlorophenol	ND	ug/l	10.
2,4-Dimethylphenol	ND	ug/l	10.
2-Nitrophenol	ND	ug/l	20.
4-Nitrophenol	ND	ug/l	10.
2,4-Dinitrophenol	ND	ug/l	20.
4,6-Dinitro-o-cresol	ND	ug/l	20.
Pentachlorophenol	ND	ug/l	20.
Phenol	ND	ug/l	7.0
2-Methylphenol	ND	ug/l	6.0
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0
2,4,5-Trichlorophenol	ND	ug/l	5.0
2,6-Dichlorophenol	ND	ug/l	10.
Benzoic Acid	ND	ug/l	50.
Benzyl Alcohol	ND	ug/l	10.
Carbazole	ND	ug/l	5.0
Pyridine	ND	ug/l	50.
2-Picoline	ND	ug/l	20.
Pronamide	ND	ug/l	20.
Methyl methanesulfonate	ND	ug/l	20.

Surrogate(s)	Recovery		QC Criteria
2-Fluorophenol	28.0	%	21-120
Phenol-d6	21.0	%	10-120
Nitrobenzene-d5	52.0	%	23-120
2-Fluorobiphenyl	49.0	%	43-120
2,4,6-Tribromophenol	62.0	%	10-120
4-Terphenyl-d14	66.0	%	33-120

Blank Analysis for sample(s) 01 (WG223393-1)

SVOC's by GC/MS 8270 1 8270C 1209 17:00 1212 15:40 RL

No Tentatively Identified Compounds

Blank Analysis for sample(s) 01 (WG223394-1)

PAH by GC/MS SIM 8270M 1 8270C-M 1209 17:00 1212 20:08 RL

Acenaphthene	ND	ug/l	0.20
2-Chloronaphthalene	ND	ug/l	0.20
Fluoranthene	ND	ug/l	0.20
Hexachlorobutadiene	ND	ug/l	0.50
Naphthalene	ND	ug/l	0.20

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0514818

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Blank Analysis for sample(s) 01 (WG223394-1)

PAH by GC/MS SIM 8270M cont'd 1 8270C-M 1209 17:00 1212 20:08 RL

Anthracene	ND	ug/l	0.20
Benzo(ghi)perylene	ND	ug/l	0.20
Fluorene	ND	ug/l	0.20
Phenanthrene	ND	ug/l	0.05
Dibenzo(a,h)anthracene	ND	ug/l	0.20
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.20
Pyrene	ND	ug/l	0.20
1-Methylnaphthalene	ND	ug/l	0.20
2-Methylnaphthalene	ND	ug/l	0.20
Pentachlorophenol	ND	ug/l	0.80
Hexachlorobenzene	ND	ug/l	0.80
Perylene	ND	ug/l	0.20
Biphenyl	ND	ug/l	0.20
2,6-Dimethylnaphthalene	ND	ug/l	0.20
1-Methylphenanthrene	ND	ug/l	0.20
Benzo(e)Pyrene	ND	ug/l	0.20
Hexachloroethane	ND	ug/l	0.80

Surrogate(s)	Recovery		QC Criteria
2-Fluorophenol	47.0	%	21-120
Phenol-d6	36.0	%	10-120
Nitrobenzene-d5	73.0	%	23-120
2-Fluorobiphenyl	66.0	%	43-120
2,4,6-Tribromophenol	62.0	%	10-120
4-Terphenyl-d14	66.0	%	33-120

Blank Analysis for sample(s) 01 (WG223388-1)

Polychlorinated Biphenyls 5 608 1209 14:20 1213 07:08 SS

Aroclor 1221	ND	ug/l	0.258
Aroclor 1232	ND	ug/l	0.258
Aroclor 1242/1016	ND	ug/l	0.258
Aroclor 1248	ND	ug/l	0.258
Aroclor 1254	ND	ug/l	0.258
Aroclor 1260	ND	ug/l	0.258

Surrogate(s)	Recovery		QC Criteria
2,4,5,6-Tetrachloro-m-xylene	59.0	%	30-150
Decachlorobiphenyl	53.0	%	30-150

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
14. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
74. Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.
NI Not Ignitable.
ug/cart Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at its own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not

