



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

**5 Post Office Square, Suite 100
BOSTON, MA 02109-3912**

CERTIFIED MAIL RETURN RECEIPT REQUESTED

DEC 13 2012

David J. Delaney
Senior Project Manager
Gutierrez Construction Company Inc.
Burlington Office Park
One Wall Street,
Burlington, MA 01803

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Construction site located at 43-63 South Avenue, Burlington, MA,
Middlesex County; Authorization # MAG910562

Dear Mr. Delaney,

Based on the review of a Notice of Intent (NOI) submitted on behalf of Burlington Crossing Realty Trust by your firm Gutierrez Construction Co., Inc. for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: <http://www.epa.gov/region1/npdes/mass.html#dgp>.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on a dilution factor range (DFR). With the absence of dilution to Vine Brook, EPA determined that the DFR for each parameter is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities)

Therefore, the limits for antimony of 6.66 ug/L, arsenic of 11.9 ug/L, cadmium of 0.24 ug/L, trivalent chromium of 58.0 ug/L, copper of 6.19 ug/L, lead of 1.45 ug/L, nickel of 34.51 ug/L, zinc of 79.25 ug/L and iron of 1,190 ug/L, are required to achieve permit compliance at your site. Please note that these metal limitations have increased above the 0-5 dilution factor range. The reason for the increase has to do with the new RGP regulations which allows for a limit increase based on the metal limit times the available dilution of the receiving stream not to exceed 5. The available dilution in this case is 1.19. See footnote eleven at the end of the "Summary of Monitoring Parameters" listed below for further explanation.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on November 29, 2014. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,


Thelma Murphy, Manager
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
John Sanchez, Burlington DPW

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:	MAG910562
Authorization Issued:	December, 2012
Facility/Site Name:	Construction Site
Facility/Site Address:	43-63 South Avenue, Burlington Crossing Realty Trust, Middlesex County
	Email address of owner: ddelaney@gutierrezco.com
Legal Name of Operator:	Gutierrez Construction Co. Inc.
Operator contact name, title, and Address:	Dennis Bailey, Vice President is named the operator contact at dennis@gutierrez.com and Mr. David Delaney is the signature Operator and Owner.
	Email: Same as the Owner
Estimated date of Completion:	November 29 2014
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Sub-category B. Known Contaminated Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
✓	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
✓	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ML 2ug/L
✓	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L
✓	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
✓	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
✓	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
✓	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
✓	14. Naphthalene ⁵	20 ug/L /Me#8260C/ML 2ug/L
✓	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
✓	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
✓	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
✓	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
✓	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
✓	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
✓	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
✓	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
✓	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
✓	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
✓	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene ⁵	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8,9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO₃ for discharges in Massachusetts (ug/l)</u> 11/12	<u>Minimum level=ML</u>
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		Freshwater	Saltwater		
✓	39. Antimony	5.6/ML	10		
✓	40. Arsenic **	10/ML	20	36/ML	20
✓	41. Cadmium **	0.2/ML	10	8.9/ML	10
✓	42. Chromium III (trivalent) **	48.8/ML	15	100/ML	15
	43. Chromium VI (hexavalent) **	11.4/ML	10	50.3/ML	10
✓	44. Copper **	5.2/ML	15	3.7/ML	15
✓	45. Lead **	1.3/ML	20	8.5/ML	20
	46. Mercury **	0.9/ML	0.2	1.1/ML	0.2
✓	47. Nickel **	29/ML	20	8.2/ML	20
	48. Selenium **	5/ML	20	71/ML	20
	49. Silver	1.2/ML	10	2.2/ML	10
✓	50. Zinc **	66.6/ML	15	85.6/ML	15
✓	51. Iron	1,000/ML	20		

	Other Parameters	Limit
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
✓	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹³
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹⁴
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹⁴
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹⁴
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹⁴
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹⁴
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹⁴
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹⁴
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab ¹⁴

Footnotes:

¹ Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

⁶ The sum of individual phthalate compounds (not including the #34, Bis (2-Ethylhexyl) Phthalate). The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses." Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁹ Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using $DF \times 1,000 \text{ ug/L}$ (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = $1,000 \times 2 = 2,000 \text{ ug/L}$, etc. not to exceed the DF=5.

¹² Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

¹³ pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

¹⁴ Temperature sampling per Method 170.1

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

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

a) Name of facility/site: 43-63 South Avenue		Facility/site mailing address:	
Location of facility/site:		Street: Facility: 43-63 South Avenue Owner: Burlington Crossing Realty Trust Mailing: c/o The Gutierrez Company One Wall Street, Burlington, MA 01803	
longitude: 71.2214	Facility SIC code(s):		
latitude: 42.4817	N/A		
b) Name of facility/site owner:		Town: Burlington	
Email address of facility/site owner: ddelaney@gutierrezco.com		State: Massachusetts	Zip: 01803 County: Middlesex
Telephone no. of facility/site owner: 781-272-7000			
Fax no. of facility/site owner: 781-272-3130		Owner is (check one): 1. Federal ☐ 2. State/Tribal ☐ 3. Private ☒ 4. Other ☐ if so, describe:	
Address of owner (if different from site):			
Street: One Wall Street			
Town: Burlington	State: MA	Zip: 01803	County: Middlesex
c) Legal name of operator: Gutierrez Construction Co., Inc.		Operator telephone no: 781-272-7000	
Operator fax no.: 781-272-3130		Operator email: dennis@gutierrezco.com	
Operator contact name and title: Dennis Bailey, Vice President			
Address of operator (if different from owner):		Street: One Wall Street	
Town: Burlington	State: MA	Zip: 01803	County: Middlesex

d) Check Y for "yes" or N for "no" for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y ☐ N ☒, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ☐ N ☒
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☒ N ☐

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☒ N ☐

If Y, please list:

1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

MassDEP Northeastern Regional Office, Wilmington, Massachusetts, 01887. Telephone (978-694-3200)

f) Is the site/facility covered by any other EPA permit, including:

1. Multi-Sector General Permit? Y ☐ N ☒, if Y, number:
2. Final Dewatering General Permit? Y ☐ N ☒, if Y, number:
3. EPA Construction General Permit? Y ☐ N ☒, if Y, number:
4. Individual NPDES permit? Y ☐ N ☒, if Y, number:
5. any other water quality related individual or general permit? Y ☐ N ☒, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☒

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	Activity Sub-Category
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☒

IV - Miscellaneous Related Discharges

- A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐
 B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐
 C. Hydrostatic Testing of Pipelines and Tanks ☐
 D. Long-Term Remediation of Contaminated Sumps and Dikes ☐
 E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Temporary construction dewatering during the construction and redevelopment of the project site.

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 0.55 Is maximum flow a design value? Y ☐ N ☒
 Average flow (include units) 0.22 cfs Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:

pt. 1: lat	42.4834	long	-71.2216	pt. 2: lat.		long.	
pt. 3: lat		long		pt. 4: lat.		long	
pt. 5: lat		long		pt. 6: lat.		long	
pt. 7: lat		long		pt. 8: lat.		long	
							etc.

4) If hydrostatic testing, total volume of the discharge (gals) 1

5) Is the discharge intermittent ☒ or seasonal ☐?
 Is discharge ongoing? Y ☐ N ☒

c) Expected dates of discharge (mm/dd/yy): start Nov 29, 2012 end Nov 29, 2014

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) Please see attached figure.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value concentration (ug/l)	mass (kg)	Average daily value concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	Composite	2540D	20,000	760,000			
2. Total Residual Chlorine (TRC)		☒	☐	1	Composite	4500CL-D	20	Non-Detect			
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	1	Composite	1664A	4,400	Non-Detect			
4. Cyanide (CN)	57125	☒	☐	1	Composite	9014	5	Non-Detect			
5. Benzene (B)	71432	☒	☐	1	Grab	8260C	50	Non-Detect			
6. Toluene (T)	108883	☒	☐	1	Grab	8260C	100	Non-Detect			
7. Ethylbenzene (E)	100414	☒	☐	1	Grab	8260C	100	Non-Detect			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	Grab	8260C	200	Non-Detect			
9. Total BTEX ²	n/a	☒	☐	1	Grab	8250C	200	Non-Detect			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒	☐	1	Grab	504.1	0.01	Non-Detect			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	Grab	8260C	200	Non-Detect			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	Grab	8260C	1000	Non-Detect			

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value concentration (ug/l)</u>	<u>mass (kg)</u>	<u>Average daily value concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	Grab	8260C	200	Non-Detect			
14. Naphthalene	91203	☒	☐	1	Grab	8260C	200	Non-Detect			
15. Carbon Tetrachloride	56235	☒	☐	1	Grab	8260C	100	Non-Detect			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	Grab	8260C	100	Non-Detect			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	Grab	8260C	100	Non-Detect			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	Grab	8260C	100	Non-Detect			
18a. Total dichlorobenzene		☒	☐	1	Grab	8260C	100	Non-Detect			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	Grab	8260C	100	Non-Detect			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	Grab	8260C	100	Non-Detect			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	Grab	8260C	100	Non-Detect			
22. cis-1,2 Dichloroethene (DCE)	156592	☐	☒	5	Grab	8260C	100	1400			
23. Methylene Chloride	75092	☒	☐	1	Grab	8260C	200	Non-Detect			
24. Tetrachloroethene (PCE)	127184	☐	☒	5	Grab	8260C	100	1010			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	Grab	8260C	100	Non-Detect			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	Grab	8260C	100	Non-Detect			
27. Trichloroethene (TCE)	79016	☐	☒	5	Grab	8260C	500	36700			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
28. Vinyl Chloride (Chloroethene)	75014	☐	☒	5	Grab	8260C	50	25			
29. Acetone	67641	☒	☐	1	Grab	8260C	500	Non-Detect			
30. 1,4 Dioxane	123911	☒	☐	1	Grab	8260C-SIM	300	Non-Detect			
31. Total Phenols	108952	☐	☒	1	Composite	420	30	40			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	Composite	8270D-SIM	0.8	Non-Detect			
33. Total Phthalates (Phthalate esters) ⁴		☒	☐	1	Composite	8270D	5	Non-Detect			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	Composite	8270D	3	Non-Detect			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
a. Benzo(a) Anthracene	56553	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
b. Benzo(a) Pyrene	50328	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	Composite	8270-SIM	0.2	Non-Detect			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	Composite	8270-SIM	0.2	Non-Detect			
e. Chrysene	21801	☒	☐	1	Composite	8270-SIM	0.2	Non-Detect			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	Composite	8270-SIM	0.2	Non-Detect			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	Composite	8270-SIM	0.2	Non-Detect			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			

⁴ The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
h. Acenaphthene	83329	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
i. Acenaphthylene	208968	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
j. Anthracene	120127	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
k. Benzo(ghi) Perylene	191242	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
l. Fluoranthene	206440	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
m. Fluorene	86737	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
n. Naphthalene	91203	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
o. Phenanthrene	85018	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
p. Pyrene	129000	☒	☐	1	Composite	8270D-SIM	0.2	Non-Detect			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	Composite	608	0.25	Non-Detect			
	38. Chloride	☐	☒	1	Composite	300.0	5,000	210,000			
	39. Antimony	☐	☒	1	Composite	6020A	0.5	0.8			
	40. Arsenic	☐	☒	6	Composite	6020A	0.5	3.3			
41. Cadmium	7440439	☐	☒	6	Composite	6020A	0.2	35.1			
42. Chromium III (trivalent) Note 1	16065831	☐	☒	6	Composite	6020A	0.5	2.6			
43. Chromium VI (hexavalent)	18540299	☒	☐	1	Composite	7196A	10	Non-Detect			
44. Copper	7440508	☐	☒	1	Composite	6020A	0.5	22.1			
45. Lead	7439921	☐	☒	1	Composite	6020A	0.5	13			
46. Mercury	7439976	☒	☐	1	Composite	7470A	0.2	Non-Detect			
47. Nickel	7440020	☐	☒	6	Composite	6020A	0.5	813			
48. Selenium	7782492	☒	☐	1	Composite	6020A	1	Non-Detect			
49. Silver	7440224	☒	☐	6	Composite	6020A	0.4	Non-Detect			
50. Zinc	7440666	☐	☒	1	Composite	6020A	5	34.5			
51. Iron	7439896	☐	☒	1	Composite	6010C	50	2100			
Other (describe):		☐	☐								

Remediation General Permit
Appendix V - NOI

Additional historical groundwater data collected by Weston Solutions, Inc. between 2010 and 2012 for MCP compliance activities has been included in Appendix B.

Note 1. Trivalent Chromium is equal to the total Chromium minus the detectable value of Hexavalent Chromium.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value concentration (ug/l)	mass (kg)	Average daily value concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

<i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ☐ N ☐		If yes, which metals? Cadmium, Copper, Lead, Nickel, and Iron
<i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Cadmium DF: 1.1 Metal: Copper DF: 1.1 Metal: Lead DF: 1.1 Metal: Nickel DF: 1.1 Etc. Iron DF: 1.1		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 ☐ N ☐ If Y, list which metals: Cadmium, Copper, Lead, Nickel, and Iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Groundwater encountered during the construction activities will be pumped into a treatment system. Influent treatment system groundwater will be pumped into a fractionalization tank where solids will be allowed to settle out, from here the system will include as is necessary: a bag filter and a granular activated carbon filter. Additional treatment equipment (if necessary to achieve effluent standards) may include an air stripper for removal of VOCs and/or a precipitation system for removal of metals. The treatment system effluent will then be discharged into a storm drain.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	Other (please describe):			

c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system:

Average flow rate of discharge gpm Maximum flow rate of treatment system gpm
Design flow rate of treatment system gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

None.

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

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):
------------------------------------	--	--	---	-----------------------------------	--

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Treatment system effluent will be discharged into an on-site storm-drain leading into a drainage swale, into an unnamed stream and into the Vine Brook.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

1. For multiple discharges, number the discharges sequentially.

2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water:

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☒ N ☐ If yes, for which pollutant(s)?

Is there a final TMDL? Y ☒ N ☐ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ☐ B ☐ C ☐ D ☒ E ☐ F ☐
- b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☒ N ☐ Underway ☐
- c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ☒ N ☐
- d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.
- e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?
1 ☐ 2 ☒ 3 ☐
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

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.

Appendix B: Analytical Data collected by Sanborn Head and Associates, Inc. on October 25, 2012 and collected by Weston Solutions, Inc. between 2010 and 2012
Appendix C: Calculations for the 7Q10 flow of the Vine Brook and the dilution factor calculation.
Appendix D: Correspondence from the National Oceanic and Atmospheric Administration, and the US Fish and Wildlife Service.
Appendix E: A list of Historic Places located within the Towns located within the watershed of the Vine Brook.
Appendix F: The Best Management Practices Plan.

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: 43-63 South Avenue, Burlington, MA

Operator signature:



Printed Name & Title: David J. Delaney, Senior Project Manager, Gutierrez Construction Co., Inc.

Date: November 20, 2012

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: 43-63 South Avenue, Burlington, MA

Operator signature:



Printed Name & Title: David J. Delaney, Senior Project Manager, Gutierrez Construction Co., Inc.

Date: November 20, 2012



ANALYTICAL REPORT

Lab Number:	L1219389
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN:	Matt Heil
Phone:	(978) 392-0900
Project Name:	SOUTH AVENUE
Project Number:	2710.01
Report Date:	10/31/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1219389-01	PHASE II RGP	BURLINGTON, MA	10/25/12 17:00
L1219389-02	MW-105A	BURLINGTON, MA	10/25/12 16:50
L1219389-03	TRIP BLANK-504/8260	BURLINGTON, MA	10/25/12 00:00

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

MADEP MCP Response Action Analytical Report Certification

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

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	NO
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

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



Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1219389-02 and -03, utilized a quadratic fit for Acetone.

The continuing calibration standard, associated with L1219389-02 and -03, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

Volatile Organics-SIM

L1219389-02 has an elevated detection limit for 1,4-Dioxane due to the dilution required by the elevated concentrations of non-target compounds in the sample.

PCBs

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

Non-MCP Related Narratives

Chlorine, Total Residual

WG569861: A laboratory duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/31/12

ORGANICS

VOLATILES

Serial_No:10311219:52

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02
Client ID: MW-105A
Sample Location: BURLINGTON, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 10/30/12 13:45
Analyst: SH

Date Collected: 10/25/12 16:50
Date Received: 10/25/12
Field Prep: Not Specified
Extraction Date: 10/30/12 08:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Microextractables by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02 D2
 Client ID: MW-105A
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 10/30/12 10:25
 Analyst: MM

Date Collected: 10/25/12 16:50
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Trichloroethene	24000		ug/l	500	--	500
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	101		70-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02 D
 Client ID: MW-105A
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 10/29/12 10:53
 Analyst: MM

Date Collected: 10/25/12 16:50
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	540		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
Trichlorofluoromethane	ND		ug/l	200	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,1-Dichloropropene	ND		ug/l	200	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Benzene	ND		ug/l	50	--	100
Toluene	ND		ug/l	100	--	100
Ethylbenzene	ND		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Bromomethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	20000	E	ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100
1,4-Dichlorobenzene	ND		ug/l	100	--	100

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02 D
 Client ID: MW-105A
 Sample Location: BURLINGTON, MA

Date Collected: 10/25/12 16:50
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	200	--	100
p/m-Xylene	ND		ug/l	200	--	100
o-Xylene	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	1400		ug/l	100	--	100
Dibromomethane	ND		ug/l	200	--	100
1,2,3-Trichloropropane	ND		ug/l	200	--	100
Styrene	ND		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
Acetone	ND		ug/l	500	--	100
Carbon disulfide	ND		ug/l	200	--	100
2-Butanone	ND		ug/l	500	--	100
4-Methyl-2-pentanone	ND		ug/l	500	--	100
2-Hexanone	ND		ug/l	500	--	100
Bromochloromethane	ND		ug/l	200	--	100
Tetrahydrofuran	ND		ug/l	500	--	100
2,2-Dichloropropane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100
1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100
Bromobenzene	ND		ug/l	200	--	100
n-Butylbenzene	ND		ug/l	200	--	100
sec-Butylbenzene	ND		ug/l	200	--	100
tert-Butylbenzene	ND		ug/l	200	--	100
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
1,2-Dibromo-3-chloropropane	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
Isopropylbenzene	ND		ug/l	200	--	100
p-Isopropyltoluene	ND		ug/l	200	--	100
Naphthalene	ND		ug/l	200	--	100
n-Propylbenzene	ND		ug/l	200	--	100
1,2,3-Trichlorobenzene	ND		ug/l	200	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100
1,3,5-Trimethylbenzene	ND		ug/l	200	--	100
1,2,4-Trimethylbenzene	ND		ug/l	200	--	100
Ethyl ether	ND		ug/l	200	--	100
Isopropyl Ether	ND		ug/l	200	--	100
Ethyl-Tert-Butyl-Ether	ND		ug/l	200	--	100
Tertiary-Amyl Methyl Ether	ND		ug/l	200	--	100

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02 D
 Client ID: MW-105A
 Sample Location: BURLINGTON, MA

Date Collected: 10/25/12 16:50
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

tert-Butyl Alcohol	ND		ug/l	1000	--	100
--------------------	----	--	------	------	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-02 D
Client ID: MW-105A
Sample Location: BURLINGTON, MA
Matrix: Water
Analytical Method: 97,8260C-SIM
Analytical Date: 10/29/12 10:53
Analyst: MM

Date Collected: 10/25/12 16:50
Date Received: 10/25/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	300	--	100

Serial_No:10311219:52

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-03
 Client ID: TRIP BLANK-504/8260
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 10/30/12 14:01
 Analyst: SH

Date Collected: 10/25/12 00:00
 Date Received: 10/25/12
 Field Prep: Not Specified
 Extraction Date: 10/30/12 08:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Microextractables by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-03
 Client ID: TRIP BLANK-504/8260
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 10/29/12 10:20
 Analyst: MM

Date Collected: 10/25/12 00:00
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-03
 Client ID: TRIP BLANK-504/8260
 Sample Location: BURLINGTON, MA

Date Collected: 10/25/12 00:00
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-03
Client ID: TRIP BLANK-504/8260
Sample Location: BURLINGTON, MA

Date Collected: 10/25/12 00:00
Date Received: 10/25/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
tert-Butyl Alcohol	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	99		70-130

Serial_No:10311219:52

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-03
Client ID: TRIP BLANK-504/8260
Sample Location: BURLINGTON, MA
Matrix: Water
Analytical Method: 97,8260C-SIM
Analytical Date: 10/29/12 10:20
Analyst: MM

Date Collected: 10/25/12 00:00
Date Received: 10/25/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	--	1

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1

Analytical Date: 10/30/12 12:27

Analyst: SH

Extraction Date: 10/30/12 08:30

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 02-03 Batch: WG570531-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C-SIM
Analytical Date: 10/29/12 08:43
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 02-03 Batch: WG570559-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/12 08:43
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG570561-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/12 08:43
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG570561-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/12 08:43
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG570561-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
tert-Butyl Alcohol	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93	OK	70-130
Toluene-d8	98	OK	70-130
4-Bromofluorobenzene	102	OK	70-130
Dibromofluoromethane	98	OK	70-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/30/12 09:20
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG570561-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/30/12 09:20
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG570561-6					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/30/12 09:20
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG570561-6					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
tert-Butyl Alcohol	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 02-03 Batch: WG570531-2								
1,2-Dibromoethane	110		-		70-130	-		20
1,2-Dibromo-3-chloropropane	98		-		70-130	-		20

MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 02-03 Batch: WG570559-1 WG570559-2

1,4-Dioxane	118		94		70-130	23	Q	20
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Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG570561-1 WG570561-2								
Methylene chloride	90		94		70-130	4		20
1,1-Dichloroethane	90		93		70-130	3		20
Chloroform	103		104		70-130	1		20
Carbon tetrachloride	104		108		70-130	4		20
1,2-Dichloropropane	98		100		70-130	2		20
Dibromochloromethane	98		98		70-130	0		20
1,1,2-Trichloroethane	97		99		70-130	2		20
Tetrachloroethene	100		105		70-130	5		20
Chlorobenzene	102		101		70-130	1		20
Trichlorofluoromethane	100		108		70-130	8		20
1,2-Dichloroethane	102		105		70-130	3		20
1,1,1-Trichloroethane	102		107		70-130	5		20
Bromodichloromethane	96		98		70-130	2		20
trans-1,3-Dichloropropene	91		92		70-130	1		20
cis-1,3-Dichloropropene	96		102		70-130	6		20
1,1-Dichloropropene	99		103		70-130	4		20
Bromoform	93		93		70-130	0		20
1,1,2,2-Tetrachloroethane	98		92		70-130	6		20
Benzene	99		100		70-130	1		20
Toluene	96		97		70-130	1		20
Ethylbenzene	96		98		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual			
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG570561-1 WG570561-2											
Chloromethane	69	Q	69	Q			70-130		0		20
Bromomethane	110		112				70-130		2		20
Vinyl chloride	80		82				70-130		2		20
Chloroethane	80		83				70-130		4		20
1,1-Dichloroethene	94		96				70-130		2		20
trans-1,2-Dichloroethene	96		100				70-130		4		20
Trichloroethene	96		104				70-130		8		20
1,2-Dichlorobenzene	100		102				70-130		2		20
1,3-Dichlorobenzene	100		103				70-130		3		20
1,4-Dichlorobenzene	99		104				70-130		5		20
Methyl tert butyl ether	92		97				70-130		5		20
p/m-Xylene	98		100				70-130		2		20
o-Xylene	99		100				70-130		1		20
cis-1,2-Dichloroethene	101		105				70-130		4		20
Dibromomethane	103		108				70-130		5		20
1,2,3-Trichloropropane	90		92				70-130		2		20
Styrene	101		101				70-130		0		20
Dichlorodifluoromethane	80		88				70-130		10		20
Acetone	72		77				70-130		7		20
Carbon disulfide	84		90				70-130		7		20
2-Butanone	90		92				70-130		2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG570561-1 WG570561-2										
4-Methyl-2-pentanone	90		93			70-130	3			20
2-Hexanone	82		83			70-130	1			20
Bromochloromethane	108		112			70-130	4			20
Tetrahydrofuran	91		84			70-130	8			20
2,2-Dichloropropane	96		100			70-130	4			20
1,2-Dibromoethane	101		102			70-130	1			20
1,3-Dichloropropane	95		97			70-130	2			20
1,1,1,2-Tetrachloroethane	102		101			70-130	1			20
Bromobenzene	103		103			70-130	0			20
n-Butylbenzene	91		92			70-130	1			20
sec-Butylbenzene	92		90			70-130	2			20
tert-Butylbenzene	94		97			70-130	3			20
o-Chlorotoluene	92		93			70-130	1			20
p-Chlorotoluene	95		92			70-130	3			20
1,2-Dibromo-3-chloropropane	84		81			70-130	4			20
Hexachlorobutadiene	101		106			70-130	5			20
Isopropylbenzene	97		97			70-130	0			20
p-Isopropyltoluene	96		98			70-130	2			20
Naphthalene	80		84			70-130	5			20
n-Propylbenzene	92		93			70-130	1			20
1,2,3-Trichlorobenzene	88		90			70-130	2			20

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG570561-1 WG570561-2										
1,2,4-Trichlorobenzene	89		88		70-130		1		20	
1,3,5-Trimethylbenzene	93		95		70-130		2		20	
1,2,4-Trimethylbenzene	95		98		70-130		3		20	
Ethyl ether	88		88		70-130		0		20	
Isopropyl Ether	83		83		70-130		0		20	
Ethyl-Tert-Butyl-Ether	90		92		70-130		2		20	
Tertiary-Amyl Methyl Ether	96		96		70-130		0		20	
tert-Butyl Alcohol	91		92		70-130		1		20	

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	98		99		70-130	
Toluene-d8	96		97		70-130	
4-Bromofluorobenzene	93		95		70-130	
Dibromofluoromethane	103		110		70-130	

Lab Control Sample Analysis

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Batch Quality Control

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	Limits		RPD	Qual	RPD Limits	
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG570561-4 WG570561-5										
Methylene chloride	94		89		70-130		5		20	
1,1-Dichloroethane	93		88		70-130		6		20	
Chloroform	108		102		70-130		6		20	
Carbon tetrachloride	112		102		70-130		9		20	
1,2-Dichloropropane	98		95		70-130		3		20	
Dibromochloromethane	98		100		70-130		2		20	
1,1,2-Trichloroethane	96		94		70-130		2		20	
Tetrachloroethene	106		105		70-130		1		20	
Chlorobenzene	103		101		70-130		2		20	
Trichlorofluoromethane	111		101		70-130		9		20	
1,2-Dichloroethane	111		102		70-130		8		20	
1,1,1-Trichloroethane	113		103		70-130		9		20	
Bromodichloromethane	100		95		70-130		5		20	
trans-1,3-Dichloropropene	92		90		70-130		2		20	
cis-1,3-Dichloropropene	100		92		70-130		8		20	
1,1-Dichloropropene	104		97		70-130		7		20	
Bromoform	91		87		70-130		4		20	
1,1,2,2-Tetrachloroethane	94		88		70-130		7		20	
Benzene	103		96		70-130		7		20	
Toluene	96		95		70-130		1		20	
Ethylbenzene	97		95		70-130		2		20	

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG570561-4 WG570561-5								
Chloromethane	67	Q	64	Q	70-130	5		20
Bromomethane	107		103		70-130	4		20
Vinyl chloride	81		76		70-130	6		20
Chloroethane	82		78		70-130	5		20
1,1-Dichloroethene	103		94		70-130	9		20
trans-1,2-Dichloroethene	103		95		70-130	8		20
Trichloroethene	105		99		70-130	6		20
1,2-Dichlorobenzene	99		97		70-130	2		20
1,3-Dichlorobenzene	99		95		70-130	4		20
1,4-Dichlorobenzene	99		92		70-130	7		20
Methyl tert butyl ether	99		94		70-130	5		20
p/m-Xylene	101		100		70-130	1		20
o-Xylene	99		100		70-130	1		20
cis-1,2-Dichloroethene	106		100		70-130	6		20
Dibromomethane	112		105		70-130	6		20
1,2,3-Trichloropropane	89		89		70-130	0		20
Styrene	98		100		70-130	2		20
Dichlorodifluoromethane	85		76		70-130	11		20
Acetone	77		68	Q	70-130	12		20
Carbon disulfide	89		85		70-130	5		20
2-Butanone	94		85		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS		LCS		%Recovery	Qual	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual					
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG570561-4 WG570561-5									
4-Methyl-2-pentanone	96		90		70-130		6		20
2-Hexanone	78		78		70-130		0		20
Bromochloromethane	119		108		70-130		10		20
Tetrahydrofuran	97		89		70-130		9		20
2,2-Dichloropropane	101		95		70-130		6		20
1,2-Dibromoethane	102		100		70-130		2		20
1,3-Dichloropropane	96		95		70-130		1		20
1,1,1,2-Tetrachloroethane	102		102		70-130		0		20
Bromobenzene	100		99		70-130		1		20
n-Butylbenzene	91		85		70-130		7		20
sec-Butylbenzene	92		85		70-130		8		20
tert-Butylbenzene	93		87		70-130		7		20
o-Chlorotoluene	90		86		70-130		5		20
p-Chlorotoluene	90		84		70-130		7		20
1,2-Dibromo-3-chloropropane	77		70		70-130		10		20
Hexachlorobutadiene	91		92		70-130		1		20
Isopropylbenzene	98		98		70-130		0		20
p-Isopropyltoluene	93		90		70-130		3		20
Naphthalene	79		75		70-130		5		20
n-Propylbenzene	91		87		70-130		4		20
1,2,3-Trichlorobenzene	86		81		70-130		6		20

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits		Qual		
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG570561-4 WG570561-5										
1,2,4-Trichlorobenzene	87		79			70-130	10			20
1,3,5-Trimethylbenzene	93		89			70-130	4			20
1,2,4-Trimethylbenzene	95		89			70-130	7			20
Ethyl ether	92		90			70-130	2			20
Isopropyl Ether	82		78			70-130	5			20
Ethyl-Tert-Butyl-Ether	93		88			70-130	6			20
Tertiary-Amyl Methyl Ether	98		93			70-130	5			20
tert-Butyl Alcohol	91		88			70-130	3			20

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	101		98		70-130	
Toluene-d8	92		94		70-130	
4-Bromofluorobenzene	90		93		70-130	
Dibromofluoromethane	108		103		70-130	

Matrix Spike Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD Qual	RPD Limits
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Microextractables by GC - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG570531-3 QC Sample: L1219381-01 Client ID: MS Sample

1,2-Dibromoethane	ND	0.242	0.283	117	-	-	70-130	-	20
1,2-Dibromo-3-chloropropane	ND	0.242	0.259	107	-	-	70-130	-	20

SEMIVOLATILES

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 97,8270D
 Analytical Date: 10/28/12 18:17
 Analyst: JB

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 10/26/12 08:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	70		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	96		15-110
4-Terphenyl-d14	93		30-130

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	70		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	96		15-110
4-Terphenyl-d14	93		30-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 97,8270D-SIM
 Analytical Date: 10/27/12 14:29
 Analyst: AS

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 10/26/12 08:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		15-110
Phenol-d6	26		15-110
Nitrobenzene-d5	59		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	96		15-110
4-Terphenyl-d14	91		30-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270D
 Analytical Date: 10/28/12 14:39
 Analyst: JB

Extraction Method: EPA 3510C
 Extraction Date: 10/26/12 08:15

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG569920-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
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	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97.8270D
 Analytical Date: 10/28/12 14:39
 Analyst: JB

Extraction Method: EPA 3510C
 Extraction Date: 10/26/12 08:15

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG569920-1					
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		15-110
Phenol-d6	26		15-110
Nitrobenzene-d5	68		30-130
2-Fluorobiphenyl	58		30-130
2,4,6-Tribromophenol	66		15-110
4-Terphenyl-d14	72		30-130

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 10/27/12 12:07

Extraction Date: 10/26/12 08:17

Analyst: AS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG569921-1					
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	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis

Batch Quality Control

Analytical Method: 97,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 10/27/12 12:07

Extraction Date: 10/26/12 08:17

Analyst: AS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG569921-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41	MC	15-110
Phenol-d6	27	MC	15-110
Nitrobenzene-d5	61	MC	30-130
2-Fluorobiphenyl	59	MC	30-130
2,4,6-Tribromophenol	70	MC	15-110
4-Terphenyl-d14	87	MC	30-130

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG569920-2 WG569920-3								
1,2,4-Trichlorobenzene	67		54		40-140	21	Q	20
Bis(2-chloroethyl)ether	87		81		40-140	7		20
1,2-Dichlorobenzene	67		57		40-140	16		20
1,3-Dichlorobenzene	64		54		40-140	17		20
1,4-Dichlorobenzene	65		55		40-140	17		20
3,3'-Dichlorobenzidine	94		96		40-140	2		20
2,4-Dinitrotoluene	89		95		40-140	7		20
2,6-Dinitrotoluene	88		92		40-140	4		20
Azobenzene	95		94		40-140	1		20
4-Bromophenyl phenyl ether	84		86		40-140	2		20
Bis(2-chloroisopropyl)ether	104		92		40-140	12		20
Bis(2-chloroethoxy)methane	91		85		40-140	7		20
Isophorone	92		87		40-140	6		20
Nitrobenzene	91		85		40-140	7		20
Bis(2-Ethylhexyl)phthalate	110		113		40-140	3		20
Butyl benzyl phthalate	97		102		40-140	5		20
Di-n-butylphthalate	88		94		40-140	7		20
Di-n-octylphthalate	117		120		40-140	3		20
Diethyl phthalate	96		98		40-140	2		20
Dimethyl phthalate	89		91		40-140	2		20
Aniline	63		71		40-140	12		20

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG569920-2 WG569920-3								
4-Chloroaniline	48		53		40-140	10		20
Dibenzofuran	87		84		40-140	4		20
Acetophenone	92		86		40-140	7		20
2,4,6-Trichlorophenol	92		90		30-130	2		20
2-Chlorophenol	86		80		30-130	7		20
2,4-Dichlorophenol	85		85		30-130	0		20
2,4-Dimethylphenol	87		84		30-130	4		20
2-Nitrophenol	92		86		30-130	7		20
4-Nitrophenol	32		36		30-130	12		20
2,4-Dinitrophenol	84		87		30-130	4		20
Phenol	46		42		30-130	9		20
2-Methylphenol	108		104		30-130	4		20
3-Methylphenol/4-Methylphenol	82		78		30-130	5		20
2,4,5-Trichlorophenol	94		93		30-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	RPD	Qual	RPD Limits	
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG569920-2 WG569920-3										
Surrogate	LCS		LCSD		Acceptance					
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual				
2-Fluorophenol	64		60		15-110					
Phenol-d6	45		43		15-110					
Nitrobenzene-d5	95		89		30-130					
2-Fluorobiphenyl	81		77		30-130					
2,4,6-Tribromophenol	94		101		15-110					
4-Terphenyl-d14	87		91		30-130					

MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG569921-2 WG569921-3

Acenaphthene	72		62		40-140		15		20
2-Chloronaphthalene	57		49		40-140		15		20
Fluoranthene	103		98		40-140		5		20
Hexachlorobutadiene	39	Q	34	Q	40-140		14		20
Naphthalene	55		48		40-140		14		20
Benzo(a)anthracene	100		91		40-140		9		20
Benzo(a)pyrene	86		66		40-140		26	Q	20
Benzo(b)fluoranthene	99		76		40-140		26	Q	20
Benzo(k)fluoranthene	91		95		40-140		4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits	RPD	Qual	RPD Limits	

MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG569921-2 WG569921-3

Chrysene	86		79		40-140		8		20	
Acenaphthylene	67		59		40-140		13		20	
Anthracene	88		84		40-140		5		20	
Benzo(ghi)perylene	88		78		40-140		12		20	
Fluorene	80		73		40-140		9		20	
Phenanthrene	84		77		40-140		9		20	
Dibenzo(a,h)anthracene	89		79		40-140		12		20	
Indeno(1,2,3-cd)Pyrene	90		80		40-140		12		20	
Pyrene	98		93		40-140		5		20	
2-Methylnaphthalene	54		47		40-140		14		20	
Pentachlorophenol	99		92		30-130		7		20	
Hexachlorobenzene	91		82		40-140		10		20	
Hexachloroethane	52		45		40-140		14		20	

Surrogate	LCS		LCSD		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual		
2-Fluorophenol	57		48		15-110	
Phenol-d6	36		31		15-110	
Nitrobenzene-d5	82		72		30-130	
2-Fluorobiphenyl	66		60		30-130	
2,4,6-Tribromophenol	96		90		15-110	
4-Terphenyl-d14	102		96		30-130	

Serial No:10311219:52
Lab Number: 10311219
Report Date: 10/21/13

Project Name: SOUTH AVENUE
Project Number: 3310 01

SAMPLE RESULTS

Lab ID: 10311219-01	Client ID: PHASE II ROP	Date Collected: 10/21/13 13:00
Sample Location: BURLINGTON, MA	Matrix: Water	Date Received: 10/21/13
Analysis Method: EPA 821	Extraction Method: EPA 821	Field Time: 10/21/13 07:30
Analysis Date: 10/21/13 15:41	Extraction Date: 10/21/13 07:30	Extraction Method: EPA 821
Analysis: PCB	Cleanup Method: EPA 821	Cleanup Date: 10/21/13
	Cleanup Method: EPA 821	Cleanup Date: 10/21/13

PCBS

Concentration	Unit	Result	MDL	Division Factor
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1
0.000	ug/L	0.000	0.000	1

Surrogate	% Recovery	Qualifier	Adjusted Concentration
1,2,4,5-Tetrachlorobenzene	14		30-150
Dechlorobiphenyl	10		30-150

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA
 Matrix: Water
 Analytical Method: 5,608
 Analytical Date: 10/26/12 15:41
 Analyst: KB

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified
 Extraction Method: EPA 608
 Extraction Date: 10/26/12 01:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 10/26/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 10/26/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						

Aroclor 1016	ND		ug/l	0.250	--	1
Aroclor 1221	ND		ug/l	0.250	--	1
Aroclor 1232	ND		ug/l	0.250	--	1
Aroclor 1242	ND		ug/l	0.250	--	1
Aroclor 1248	ND		ug/l	0.250	--	1
Aroclor 1254	ND		ug/l	0.250	--	1
Aroclor 1260	ND		ug/l	0.250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	78		30-150

Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Analytical Method: 5,608
 Analytical Date: 10/26/12 14:48
 Analyst: KB

Extraction Method: EPA 608
 Extraction Date: 10/26/12 01:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 10/26/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 10/26/12

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG569878-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	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	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	96		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MS Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG569878-3 QC Sample: L1219381-01 Client ID: MS											
Aroclor 1016	ND	1.03	0.807	78		-	-	-	40-140	-	50
Aroclor 1260	ND	1.03	0.746	72		-	-	-	40-140	-	50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74				30-150
Decachlorobiphenyl	70				30-150

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG569878-2								
Aroclor 1016	78		-		40-140	-		50
Aroclor 1260	73		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71				30-150
Decachlorobiphenyl	91				30-150

Lab Duplicate Analysis

Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG569878-4 QC Sample: L1219389-01 Client ID: PHASE II RGP						
Aroclor 1016	ND	ND	ug/l	NC		50
Aroclor 1221	ND	ND	ug/l	NC		50
Aroclor 1232	ND	ND	ug/l	NC		50
Aroclor 1242	ND	ND	ug/l	NC		50
Aroclor 1248	ND	ND	ug/l	NC		50
Aroclor 1254	ND	ND	ug/l	NC		50
Aroclor 1260	ND	ND	ug/l	NC		50

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		77		30-150
Decachlorobiphenyl	78		63		30-150

SAMPLE RESULTS

METALS

Parameter	Result	Location	Unit	RL	MDL	Station	Date Analyzed	Date Reported	Lab No.	Analyst
Cadmium	0.0005	Water	ug/L	0.0005	0.0005	1	10/12/2011	10/12/2011	10311219	AL
Chromium (Total)	0.0025	Water	ug/L	0.0025	0.0025	1	10/12/2011	10/12/2011	10311219	AL
Copper	0.0015	Water	ug/L	0.0015	0.0015	1	10/12/2011	10/12/2011	10311219	AL
Lead	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL
Mercury	0.0001	Water	ug/L	0.0001	0.0001	1	10/12/2011	10/12/2011	10311219	AL
Manganese	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL
Nickel	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL
Selenium	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL
Silver	0.0001	Water	ug/L	0.0001	0.0001	1	10/12/2011	10/12/2011	10311219	AL
Vanadium	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL
Zinc	0.0010	Water	ug/L	0.0010	0.0010	1	10/12/2011	10/12/2011	10311219	AL

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01

Date Collected: 10/25/12 17:00

Client ID: PHASE II RGP

Date Received: 10/25/12

Sample Location: BURLINGTON, MA

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Antimony, Total	0.0008		mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Arsenic, Total	0.0033		mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Cadmium, Total	0.0351		mg/l	0.0002	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Chromium, Total	0.0026		mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Copper, Total	0.0221		mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Iron, Total	2.1		mg/l	0.05	--	1	10/30/12 09:30	10/30/12 17:43	EPA 3005A	97,6010C	KL
Lead, Total	0.0130		mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Mercury, Total	ND		mg/l	0.0002	--	1	10/30/12 13:30	10/31/12 09:57	EPA 7470A	97,7470A	JH
Nickel, Total	0.8140	E	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Selenium, Total	ND		mg/l	0.001	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Silver, Total	ND		mg/l	0.0004	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK
Zinc, Total	0.0345		mg/l	0.0050	--	1	10/30/12 09:30	10/30/12 16:00	EPA 3005A	97,6020A	AK



Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01 D
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA
 Matrix: Water

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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MCP Total Metals - Westborough Lab

Nickel, Total	0.8125		mg/l	0.0025	--	5	10/30/12 09:30	10/30/12 16:08	EPA 3005A	97,6020A	AK
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Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG570569-1									
Iron, Total	ND	mg/l	0.05	--	1	10/30/12 09:30	10/30/12 17:02	97,6010C	KL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG570574-1									
Antimony, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Arsenic, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Cadmium, Total	ND	mg/l	0.0002	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Chromium, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Copper, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Lead, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Nickel, Total	ND	mg/l	0.0005	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Selenium, Total	ND	mg/l	0.001	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Silver, Total	ND	mg/l	0.0004	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK
Zinc, Total	ND	mg/l	0.0050	--	1	10/30/12 09:30	10/30/12 15:23	97,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG570645-1									
Mercury, Total	ND	mg/l	0.0002	--	1	10/30/12 13:30	10/31/12 09:48	97,7470A	JH

Prep Information

Digestion Method: EPA 7470A



Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG570569-2 WG570569-3								
Iron, Total	110		110		80-120	0		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG570574-2 WG570574-3								
Antimony, Total	96		98		80-120	2		20
Arsenic, Total	109		112		80-120	3		20
Cadmium, Total	105		100		80-120	5		20
Chromium, Total	96		99		80-120	3		20
Copper, Total	114		114		80-120	0		20
Lead, Total	105		106		80-120	1		20
Nickel, Total	101		107		80-120	6		20
Selenium, Total	114		119		80-120	4		20
Silver, Total	105		102		80-120	3		20
Zinc, Total	110		112		80-120	2		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG570645-2 WG570645-3								
Mercury, Total	107		90		80-120	17		20

INORGANICS & MISCELLANEOUS

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

SAMPLE RESULTS

Lab ID: L1219389-01
 Client ID: PHASE II RGP
 Sample Location: BURLINGTON, MA
 Matrix: Water

Date Collected: 10/25/12 17:00
 Date Received: 10/25/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	--	1	10/31/12 09:00	10/31/12 14:07	97,9014	JO
Chromium, Hexavalent	ND		mg/l	0.010	--	1	10/26/12 02:00	10/26/12 02:39	97,7196A	JT
General Chemistry - Westborough Lab										
Solids, Total Suspended	760		mg/l	20	NA	4	-	10/27/12 17:30	30,2540D	ST
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	10/25/12 23:20	30,4500CL-D	EL
TPH	ND		mg/l	4.40	--	1.1	10/29/12 10:00	10/31/12 12:45	74,1664A	JO
Phenolics, Total	0.04		mg/l	0.03	--	1	10/30/12 14:00	10/30/12 16:28	4,420.1	MP
Anions by Ion Chromatography - Westborough Lab										
Chloride	210		mg/l	5.0	--	10	-	10/27/12 16:28	44,300.0	AU



Project Name: SOUTH AVENUE

Project Number: 2710.01

Lab Number: L1219389

Report Date: 10/31/12

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG569861-1									
Chlorine, Total Residual	ND	mg/l	0.02	--	1	-	10/25/12 23:20	30,4500CL-D	EL
MCP General Chemistry - Westborough Lab for sample(s): 01 Batch: WG569884-1									
Chromium, Hexavalent	ND	mg/l	0.010	--	1	10/26/12 02:00	10/26/12 02:32	97,7196A	JT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG570229-1									
Solids, Total Suspended	ND	mg/l	5.0	NA	1	-	10/27/12 17:30	30,2540D	ST
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG570427-1									
TPH	ND	mg/l	4.00	--	1	10/29/12 10:00	10/31/12 12:45	74,1664A	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG570502-1									
Chloride	ND	mg/l	0.50	--	1	-	10/27/12 11:40	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG570633-1									
Phenolics, Total	ND	mg/l	0.03	--	1	10/30/12 14:00	10/30/12 16:26	4,420.1	MP
MCP General Chemistry - Westborough Lab for sample(s): 01 Batch: WG570882-1									
Cyanide, Total	ND	mg/l	0.005	--	1	10/31/12 09:00	10/31/12 14:04	97,9014	JO

Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG569861-2								
Chlorine, Total Residual	93		-		90-110	-		
MCP General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG569884-2 WG569884-3								
Chromium, Hexavalent	99		99		80-120	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG570427-2								
TPH	80		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG570502-2								
Chloride	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG570633-2								
Phenolics, Total	101		-		82-111	-		12
MCP General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG570882-2 WG570882-3								
Cyanide, Total	102		104		80-120	2		20

Matrix Spike Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD Qual	RPD Limits
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General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570427-4 QC Sample: L1219529-03 Client ID: MS Sample

TPH	ND	24.1	20.0	83	-	-	64-132	-	34
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Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570502-3 QC Sample: L1219230-02 Client ID: MS Sample

Chloride	160	40	200	108	-	-	40-151	-	18
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General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570633-4 QC Sample: L1219430-01 Client ID: MS Sample

Phenolics, Total	0.17	0.8	0.83	82	-	-	77-124	-	12
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Lab Duplicate Analysis Batch Quality Control

Project Name: SOUTH AVENUE
Project Number: 2710.01

Lab Number: L1219389
Report Date: 10/31/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570229-2 QC Sample: L1219389-01 Client ID: PHASE II RGP						
Solids, Total Suspended	760	790	mg/l	4		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570427-3 QC Sample: L1219529-02 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570502-4 QC Sample: L1219230-02 Client ID: DUP Sample						
Chloride	160	160	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG570633-3 QC Sample: L1219381-01 Client ID: DUP Sample						
Phenolics, Total	0.06	0.05	mg/l	18	Q	12



Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1219389-01A	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01B	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01C	Amber 1000ml Na2S2O3	A	7	2.5	Y	Absent	PCB-608(7)
L1219389-01D	Amber 1000ml Na2S2O3	A	7	2.5	Y	Absent	PCB-608(7)
L1219389-01E	Amber 1000ml HCl preserved	A	N/A	2.5	Y	Absent	TPH-1664(28)
L1219389-01F	Amber 1000ml HCl preserved	A	N/A	2.5	Y	Absent	TPH-1664(28)
L1219389-01G	Amber 1000ml H2SO4 preserved	A	<2	2.5	Y	Absent	TPHENOL-420(28)
L1219389-01H	Plastic 1000ml unpreserved	A	7	2.5	Y	Absent	TSS-2540(7)
L1219389-01I	Plastic 500ml unpreserved	A	7	2.5	Y	Absent	MCP-HEXCR7196-10(1)
L1219389-01J	Plastic 500ml unpreserved	A	7	2.5	Y	Absent	CL-300(28),TRC-4500(1)
L1219389-01K	Plastic 250ml HNO3 preserved	A	<2	2.5	Y	Absent	MCP-FE-6010T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1219389-01Q	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01R	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01S	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01T	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01U	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01V	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)

*Values in parentheses indicate holding time in days

Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1219389-01W	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-01X	Plastic 250ml NaOH preserved	A	>12	2.5	Y	Absent	MCP-TCN9014-10(14)
L1219389-01Y	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1219389-02A	Vial HCl preserved	A	N/A	2.5	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1219389-02B	Vial HCl preserved	A	N/A	2.5	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1219389-02C	Vial HCl preserved	A	N/A	2.5	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1219389-02D	Vial Na2S2O3 preserved	A	N/A	2.5	Y	Absent	504(14)
L1219389-02E	Vial Na2S2O3 preserved	A	N/A	2.5	Y	Absent	504(14)
L1219389-03A	Vial HCl preserved	A	N/A	2.5	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1219389-03B	Vial Na2S2O3 preserved	A	N/A	2.5	Y	Absent	504(14)

Container Comments

L1219389-01K

*Values in parentheses indicate holding time in days



Project Name: SOUTH AVENUE

Lab Number: L1219389

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Report Date: 10/31/12

GLOSSARY

Acronyms

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

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

LIMITATION OF LIABILITY

Alpha Analytical performs services with reasonable care and diligence under the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of interpretation of information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, storage, container, sampling procedure, holding time and sealing of samples in the field.

Report Format: Data Usability Report



Project Name: SOUTH AVENUE

Lab Number: L1219389

Project Number: 2710.01

Report Date: 10/31/12

REFERENCES

- 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.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 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.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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



Certificate/Approval Program Summary

Last revised August 16, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. **Organic Parameters:** Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). **Microbiology Parameters:** Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. **Organic Parameters:** PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. **Microbiology Parameters:** Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. **Organic Parameters:** PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. **Organic Parameters:** 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 200.8, 6020, 245.1, 1312, 3005A, Enterolert, 9223D, 9222D. **Organic Parameters:** 608, 624, 625, 8081A, 8082, 8330, 8151A, 8260B, 8270C, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9030B, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. **Organic Parameters:** ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. **Organic Parameters:** (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. **Microbiology Parameters:** SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010B, 6010C, 6020, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9030B, 9040B, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082, 8082A, 8081A, 8081B, 8151A, 8330, 8270C-SIM, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 6010C, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050, 9065,1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082, 8082A, 8081A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, 2540G, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012A, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C, 3546, 3580, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7471A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. NELAP Accredited.

Drinking Water (Inorganic Parameters: 200.7, 200.8, 245.2, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 3501., 350.2, 353.2, 420.1, 6010B, 6010C, 6020, 6020A, 7196A, 7470A, 9010B, 9030B, 9040B, Lachat 10-107-06-2-D, NJ-EPH, 2120B, 2310B, 2320B, 2340B, 2510C, 2540B, 2540C, 3500Cr-D, 436C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330, 8015B,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010B, 6010C, 6020A, 7196A, 7471A, 7471B, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. NELAP Accredited via NJ-DEP.

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. NELAP Accredited.

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500F-C, 4500NO3-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 2.08, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5035, 3540C, 3546, 3550, 3580, 3630C, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, **Organic Parameters:** EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>



January 17, 2012

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

NOV 15 2012

Matt P. Heil
Sanborn, Head & Associates, Inc.
1 Technology Park Drive
Westford, MA 01886

Re: Application for NPDES RGP Permit in Burlington, MA

Dear Mr. Heil,

The following is in response to your October 31, 2012, letter regarding the proposal for the Phase II 43-63 South Avenue project in Burlington, Massachusetts, to be included under the Environmental Protection Agency's (EPA) Remediation General Permit (RGP) authorized by the National Pollution Discharge Elimination System (NPDES) program. The receiving water for the discharge is Vine Brook in Burlington, Massachusetts. These comments are offered by the Protected Resources Division of NOAA's National Marine Fisheries Service (NMFS PRD).

While several species of listed whales and sea turtles occur seasonally in waters off the Massachusetts coast and populations of the federally endangered shortnose sturgeon occur in the Connecticut and Merrimack Rivers, no listed species are known to occur in Vine Brook. As such, no further coordination with NMFS PRD is necessary. Should you have any questions regarding these comments, please contact Chris Vaccaro at (978)281-9167 or by email (Christine.Vaccaro@noaa.gov).

Sincerely,

Mary A. Colligan
Assistant Regional Administrator
for Protected Resources



Appendix E
National Register of Historic Places
Research Documentation of Towns Located Within The Vine Brook Watershed
53-63 South Avenue, Burlington, Massachusetts

Site Name	Address	Town
Bacon-Gleason-Blodgett Homestead	118 Wilson Rd.	Bedford
Bedford Center Historic District	Irregular pattern along Great Rd.	Bedford
Bedford Depot	80 Loomis St. and 120 South Rd.	Bedford
Lane, David, House	147 North Rd.	Bedford
Lane, Job, House	295 North St.	Bedford
Old Billerica Road Historic District	229-301 Old Billerica Rd.	Bedford
Page, Christopher, House	50 Old Billerica Rd.	Bedford
Page, Nathaniel, House	89 Page Rd.	Bedford
Shawsheen Cemetery	Great Rd. and Shawsheen Rd.	Bedford
Two Brothers Rocks--Dudley Road Historic District	Roughly Dudley Rd between Chestnut Lane and Emery Rd, Bedford	Bedford
Wilson Mill--Old Burlington Road District	Old Burlington Rd. and Wilson Rd.	Bedford
Center School	13 Bedford St.	Burlington
Meeting House of the Second Parish in Woburn	12 Lexington St.	Burlington
West School	106 Bedford St.	Burlington
Wyman, Francis, House	Francis Wyman St.	Burlington
Buckman Tavern	Hancock St., on the E side of Lexington Green	Lexington
Chandler, Gen. Samuel, House	8 Goodwin Rd.	Lexington
Follen Community Church	755 Massachusetts Ave.	Lexington
Franklin School	7 Stedman Rd.	Lexington
Hancock School	33 Forest St.	Lexington
Hancock-Clarke House	36 Hancock St.	Lexington
Lexington Green	Massachusetts and Hancock Sts.	Lexington
Mason, John, House	1303 Massachusetts Ave.	Lexington
Merriam, M.H. and Company	7-9 Oakland St.	Lexington
Minute Man National Historical Park	Minute Man National Historical Park	Lexington
Sanderson House and Munroe Tavern	1314 and 1332 Massachusetts Ave.	Lexington
Sherburne, Warren E., House	11 Percy Rd.	Lexington
Simonds Tavern	331 Bedford St.	Lexington
Stone Building	735 Massachusetts Ave.	Lexington
US Post Office--Lexington Main	1661 Massachusetts Ave.	Lexington

APPENDIX F

BEST MANAGEMENT PRACTICES PLAN

Notice of Intent for the Remediation General Permit Temporary Construction Dewatering at 53-63 South Avenue for Site Redevelopment Burlington, Massachusetts

This Best Management Practices Plan (BMPP) has been prepared in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for Massachusetts (MAG910000). This BMPP is in support of an RGP application for Phase II of a proposed construction project in Burlington, Massachusetts. The dewatering discharge will be conveyed through the existing storm drains and discharged to the Vine Brook in Burlington, MA.

The following practices will be adhered to during construction dewatering at the site.

Site Security

During construction activities, the dewatering system will be secured using standard construction practices. The fractionalization tank and associated filters, pumps and flow meters will be located in a fenced area or otherwise secured to limit access. All associated piping will be secured and checked regularly. Any system failure, vandalism, or other incidents will be addressed in a timely manner to prevent the discharge of oil or hazardous materials from exceeding the limits of the RGP.

Minimizing Sediment in Influent

Crushed stone sumps constructed as far as possible from the active excavation area will be used as the suction points for the dewatering system intakes. Efforts will be made to manage the pumping such that the amount of sediment in the influent to the treatment system is minimized.

Management of Generated Wastes

Excavations will be conducted within the limits of a Massachusetts Contingency Plan (MCP) release site. As such the wastes that are generated during the operation of the dewatering treatment system will be managed as MCP wastes. The anticipated wastes are sediment that accumulates in the fractionalization tank, used bag filters, spent activated carbon, and miscellaneous wastes associated with water quality sampling activities.

The sediment will be tested and disposed of at a licensed facility that is permitted to accept material with the documented physical and chemical characteristics of the sediment. The used bag filters and the miscellaneous sampling wastes will be appropriately disposed of as solid or contaminated wastes, based on their characteristics. The activated carbon will be processed and recycled by the company providing the media.

Prohibition of Discharge Exceeding Design Flow

The subcontractor providing the treatment system will provide the Operator with information on the design capacity of the treatment system and the features included in the design to monitor the flow rate to ensure that the capacity is not exceeded. The system will be monitored with a continuous flow meter such that the overall system flow does not exceed the lowest design capacity of an individual treatment system unit.

Preventative Maintenance Required

The treatment system will likely include one or two fractionalization tanks, two bag filters installed in parallel so the system does not need to be shut down for bag filter changeout, and two activated carbon units. Additional optional equipment may be added to the treatment system if necessary to achieve effluent standards such as an air stripper and/or precipitation system for metals treatment. Each vessel will be equipped with gauges and sampling points to allow for measurement of pressure drop across the vessel and sampling of influent and effluent streams. The bag filters will be replaced whenever the pressure drop across the filters exceeds the system's design criteria. The carbon vessels will be backwashed when the pressure drop across the vessel exceeds the system's design criteria. If systemic sampling data indicates that "breakthrough" has occurred, the treatment media will be changed out and replaced. The subcontractor will be responsible for developing and implementing a preventative maintenance plan and schedule based on the specific design of the treatment system.

Employee Training

The field staff of the Operator and the subcontractor will be instructed regarding the water quality limits contained in the RGP and the critical need to operate the treatment system as designed. The staff will also be provided guidance on how to reduce the sediment content that is pumped into the treatment system. Personnel who have responsibilities related to the dewatering efforts will be informed of the contents of the RGP, this BMPP and the NOI.

Management of Run-on and Runoff

Hay bales and silt fences as well as sloped grades will be used as needed to construct a berm around the perimeter of the site to prevent rainfall from migrating off-site or into the excavation. If stockpiles of soil are generated, the stockpiles of contaminated soils will be placed on plastic sheets and then covered with sheeting and bermed with hay bales until off-site transport occurs.

Erosion, Scouring and Sediment Control

Considering the design flow of the system compared to the size and flow of the storm drain where it discharges to the Vine Brook, it is not anticipated that the dewatering discharge will cause erosion, stream scouring at the discharge point, or additional sedimentation in the Vine Brook.



NOTES:
Base map was taken from the "Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Information Technology Division"
7.5 minute USGS Quadrangle Maps:
LEXINGTON, MA, REV: 1985



Drawn By: R.Hirtle
Designed By: J.Henry
Reviewed By: M.Heil
Project No: 2710.01
Date: November 2012

SCALE: 1:25,000

SANBORN HEAD

FIGURE 1 Locus Plan

Notice of Intent for Remediation
General Permit

53/63 South Avenue
Burlington, Massachusetts

Figure No. 2

Location of Proposed Excavations

Notice of Intent for Remediation General Permit

53/63 South Avenue
Burlington, Massachusetts

Drawn By: R.Held
Designed By: J.Henry
Reviewed By: J.Henry
Project No.: 271001
Date: November 2012

Notes

The existing base map was drawn from an electronic plan received on April 24, 2012 entitled "second Draw" prepared by SYMMES MAINI & MCKEE Associates of Cambridge, MA. The proposed base map was drawn from an electronic plan received on April 24, 2012 entitled "second Draw" prepared by SYMMES MAINI & MCKEE Associates of Cambridge, MA.

Legend

- Approximate location and designation of Monitoring Well completed by Sanborn Head on June 4, 2012. Groundwater samples were collected by Sanborn Head on June 4, 2012.
- Approximate location and designation of geotechnical boring completed by Sanborn Head in 2012 or Dames & Moore in 1992.
- Approximate location and designation of geotechnical test pit completed by Sanborn Head in 2012.
- Approximate location and designation of existing monitoring well decommissioned by Type II, 2008.
- Approximate location and designation of existing monitoring well to be decommissioned by Type II in May 2012.
- Approximate location and designation of monitoring well to be maintained during construction with 9 foot height pick-up truck access in accordance with Well Management Plan.
- Approximate location and designation of monitoring well to be maintained during construction with foot access in accordance with Well Management Plan.
- Approximate location and designation of monitoring well to be maintained during construction with pick-up truck access in accordance with Well Management Plan.
- Proposed building perimeter



SANBORN HEAD

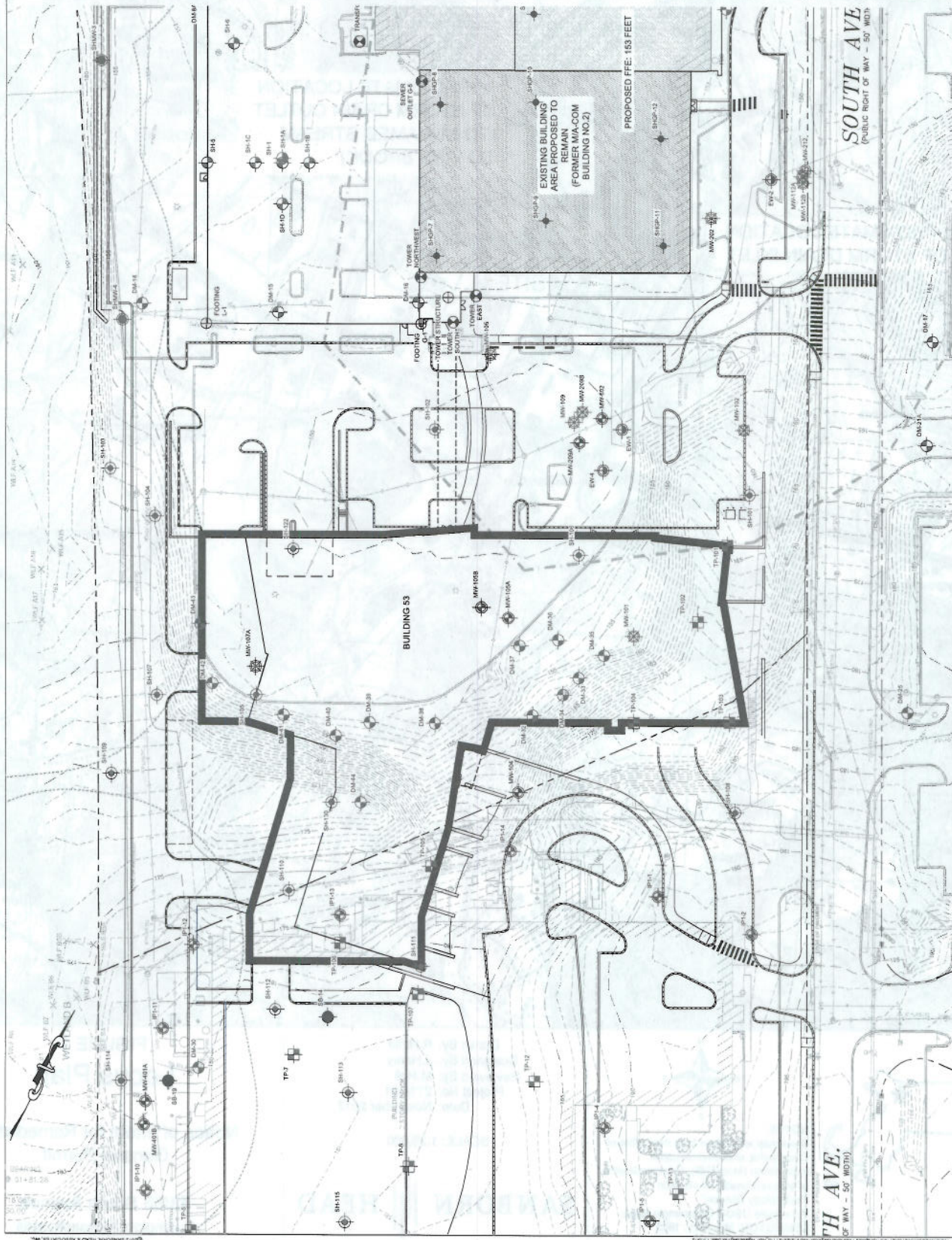


Figure No. 3

Proposed Groundwater
Treatment Schematic

Notice of Intent for
Remediation General Permit

53/63 South Avenue
Burlington, Massachusetts

Drawn By: R.Hirte
Designed By: M.Hall
Reviewed By: M.Hall
Project No: 2710.01
Date: November 2012

Notes

Details of treatment system may vary from the system indicated on left. Specific means and methods of treatment are to be selected by the subcontractor. Water quality monitoring and effluent standards shall meet the effluent standards as specified in Appendix III and IV of the RGP.

NOT TO SCALE

SANBORN HEAD

