



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Region 1**

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

**CERTIFIED MAIL RETURN RECEIPT REQUESTED**

**JUN 27 2012**

Jeffrey Fishbone  
Senior Project Manager  
Cranshaw Construction  
2310 Washington Street  
Newton Lower Falls, MA 02462

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Block 3, Assembly Row site located at 100 Sturtevant Street, Somerville,  
MA, Middlesex County; Authorization # MAG910542

Dear Mr. Fishbone:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Street Retail Inc. by your firm Cranshaw Construction, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named 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 total petroleum hydrocarbon (TPH), benzene, toluene, ethylbenzene, xylenes (BTX) and Group I polycyclic aromatic hydrocarbons in view of the historic presence of petroleum contamination at designated Massachusetts Contingency Plan (MCP) sites. You may request deletion of these and any other parameters on the check list not detected during the first six consecutive months of influent monitoring using a notice of change (NOC) application found in Appendix V of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 84.5 for this site is within a dilution range greater than fifty to one hundred ( $> 50 - 100$ ) established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for antimony of 141 ug/L, arsenic of 500 ug/L, cadmium of 10 ug/L, trivalent chromium of 1,710 ug/L, copper of 260 ug/L, lead of 66 ug/L, nickel of 1,451 ug/L, selenium of 250 ug/L, zinc of 1,480 ug/L and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

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 March 3, 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](mailto:Alvarez.Victor@epa.gov), if you have any questions.

Sincerely,



Thelma Murphy, Manager  
Storm Water and Construction  
Permits Section

Enclosure

cc: Kathleen Keohane, MassDEP  
Joseph A. Curtatone, Mayor City of Somerville

**2010 Remediation General Permit  
Summary of Monitoring Parameters<sup>[1]</sup>**

|                                            |                                                                                                                                                                                                         |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NPDES Authorization Number:</b>         | <b>MAG910542</b>                                                                                                                                                                                        |
| Authorization Issued:                      | June, 2012                                                                                                                                                                                              |
| Facility/Site Name:                        | Block 3, Assembly Row                                                                                                                                                                                   |
| Facility/Site Address:                     | 100 Sturtevant Street, Somerville, MA 02145, Middlesex County<br>Mailing: FRT, 4 <sup>th</sup> Floor, 5 Middlesex Avenue, Somerville, MA 02145                                                          |
|                                            | Email address of owner: DWebster@federalrealty.com                                                                                                                                                      |
| Legal Name of Operator:                    | Cranshaw Construction                                                                                                                                                                                   |
| Operator contact name, title, and Address: | Jeffrey Fishbone, Senior Project Manager<br>Email: JFishbone@cranshaw.com                                                                                                                               |
| Estimated date of Completion:              | March 3, 2014                                                                                                                                                                                           |
| Category and Sub-Category:                 | Petroleum Site Remediation. Subcategory C. Petroleum Sites with Additional Contamination and Contaminated Construction Dewatering. Subcategory A. General Urban Fill Sites and 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><br>(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#60.2/ML5ug/L                                                                                  |
|   | 2. Total Residual Chlorine (TRC) <sup>1</sup> | 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) <sup>2, 3</sup>               | 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                                                                                                                      |

|   | <b><u>Parameter</u></b>                                                   | <b><u>Effluent Limit/Method#/ML</u></b><br>(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) <sup>4</sup> | 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 <sup>5</sup>                                              | 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) <sup>6</sup>                      | 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                                                                                                            |

|   | <b><u>Parameter</u></b>                                   | <b><u>Effluent Limit/Method#/ML</u></b><br>(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 <sup>7</sup>                       | 0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L                                                                                                          |
| ✓ | b. Benzo(a) Pyrene <sup>7</sup>                           | 0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L                                                                                                          |
| ✓ | c. Benzo(b)Fluoranthene <sup>7</sup>                      | 0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L                                                                                                          |
| ✓ | d. Benzo(k)Fluoranthene <sup>7</sup>                      | 0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L                                                                                                          |
| ✓ | e. Chrysene <sup>7</sup>                                  | 0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L                                                                                                           |
| ✓ | f. Dibenzo(a,h)anthracene <sup>7</sup>                    | 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 <sup>7</sup>                   | 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 <sup>5</sup>                               | 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) <sup>8,9</sup> | 0.000064 ug/L/Me# 608/ ML 0.5 ug/L                                                                                                                                         |
| ✓ | 38. Chloride                                              | Monitor only/Me# 300.0/ ML 0.1ug/L                                                                                                                                         |

| <b><u>Metal parameter</u></b> | <b><u>Total Recoverable Metal Limit @ H<sup>10</sup> = 50 mg/l CaCO<sub>3</sub> for discharges in Massachusetts (ug/l)</u></b><br>11/12 | <b><u>Minimum level=ML</u></b> |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|

|   |                                 | <b>Freshwater</b> | <b>Saltwater</b> |  |  |
|---|---------------------------------|-------------------|------------------|--|--|
| ✓ | 39. Antimony                    | 141/ML 10         |                  |  |  |
| ✓ | 40. Arsenic **                  | 500/ML20          | 36/ML 20         |  |  |
| ✓ | 41. Cadmium **                  | 10/ML10           | 8.9/ML 10        |  |  |
| ✓ | 42. Chromium III (trivalent) ** | 1,710/ML15        | 100/ML 15        |  |  |
|   | 43. Chromium VI (hexavalent) ** | 11.4/ML10         | 50.3/ML 10       |  |  |
| ✓ | 44. Copper **                   | 260/ML15          | 3.7/ML 15        |  |  |
| ✓ | 45. Lead **                     | 66/ML20           | 8.5/ML 20        |  |  |
|   | 46. Mercury **                  | 0.9/ML0.2         | 1.1/ML 0.2       |  |  |
| ✓ | 47. Nickel **                   | 1,451/ML20        | 8.2/ML 20        |  |  |
| ✓ | 48. Selenium **                 | 250/ML20          | 71/ML 20         |  |  |
|   | 49. Silver                      | 1.2/ML10          | 2.2/ML 10        |  |  |
| ✓ | 50. Zinc **                     | 1,480/ML15        | 85.6/ML 15       |  |  |
| ✓ | 51. Iron                        | 5,000/ML 20       |                  |  |  |

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

**Footnotes:**

<sup>1</sup> 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).

<sup>2</sup> 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.

<sup>3</sup> 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).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> 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.

<sup>6</sup> 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.*

<sup>7</sup> 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.

<sup>8</sup> 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.*

<sup>9</sup> 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).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> 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.

<sup>12</sup> 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).

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

<sup>14</sup> Temperature sampling per Method 170.1

# CRANSHAW CONSTRUCTION

## Transmittal

Cranshaw Standard

Assembly Row at Assembly Square - Block 3  
Assembly Square Drive, Parcel 29, Somerville, MA  
02143

Project # 485  
Tel: Fax:

Cranshaw Construction

Date: 5/23/2012

Reference Number: 0005

Transmitted To

ATTN: Remediation General Permit NOI Processing  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, MA 02109-3912

Transmitted By

Jeff Fishbone  
Cranshaw Construction  
2310 Washington Street  
Newton L.F., MA 02462  
Tel: 617-559-5214  
Fax: 1-617-527-1977

Package Transmitted For

Information

Delivered Via

UPS Ground

| Qty  | Description                                                                         | Notes |
|------|-------------------------------------------------------------------------------------|-------|
| 1.00 | Letter regarding Notice of Intent for the Remediation General Permit dated 5/23/12. |       |

Remarks

| Cc: | Company Name          | Contact Name     | Copies | Notes |
|-----|-----------------------|------------------|--------|-------|
|     | Cranshaw Construction | Dan Feidler      | 1      |       |
|     | Cranshaw Construction | Donna Timberlake | 1      | File  |
|     | Cranshaw Construction | Richard Regitano | 1      |       |
|     | Cranshaw Construction | Robert Zirpolo   | 1      |       |

Signature

Signed Date

**CRANSHAW**  
**CONSTRUCTION**

U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, MA 02109-3912  
ATTN: Remediation General Permit NOI Processing

May 23, 2012  
File No. 3175.00

MAG 910542

Re: Notice of Intent for the Remediation General Permit  
Temporary Construction Dewatering  
Block 3, Assembly Row Redevelopment Project  
Assembly Square, Somerville, Massachusetts

Dear Sir/Madam:

On behalf of Street Retail, Inc. (in its individual capacity, and as attorney in fact for the site owners FR Sturtevant Street, LLC, SRI Assembly Row B2, LLC, SRI Assembly Row B3, LLC, SRI Assembly Row B5, LLC, SRI Assembly Row B6, LLC, SRI Assembly Row B7, LLC, SRI Assembly Row B8, LLC, and SRI Assembly Row B9, LLC, collectively as tenants in common), Cranshaw Construction (Cranshaw) is submitting this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) MAG910000. This letter and supporting documentation were prepared in accordance with the U.S. EPA guidance for construction dewatering under the RGP program. Cranshaw is the Construction Manager for the project and will have direct contracting responsibilities with the earthwork contractors performing the dewatering activities within the Project Site. Subcontractors working on the project will be required to meet the requirements of this NOI and the RGP.

This NOI will cover construction activities associated with site redevelopment on Block 3 (Parcel 29) of the Assembly Row development. This site is located to the east of the Assembly Square Mall in Somerville, Massachusetts (Figure 1). Block 3 is a portion of Massachusetts Contingency Plan Release Tracking Numbers (RTNs) 3-0649, 3-14763, and 3-28753, shown on Figure 2. The temporary construction dewatering will discharge via a new 72-inch storm drain outfall which was installed as part of the Assembly Row development. The new 72-inch storm drain outfall discharges to the Mystic River below the Amelia Earhart DAM (Figure 2).

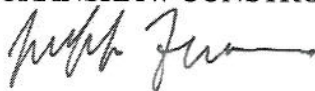
According to the Massachusetts Geographical Information System (MassGIS), the excavation activities will not impact Areas of Critical Environmental Concern (ACEC) or Habitats of Rare Wetland Wildlife. A review of the information on the U.S. Fish and Wildlife Service website, led to the conclusion that the project will not impact federally-listed threatened or endangered species. A form letter from that agency is included in Appendix D. A letter requesting information regarding Oceanic Fisheries was sent to the National Oceanic and Atmospheric Administration (NOAA), and their response (Appendix D) states that no listed species are known to occur in the Mystic River.

The construction activities will require the excavation of soil to a depth of approximately 5 to 10 feet below ground surface (bgs) depending on the location. Groundwater is anticipated to be encountered between 10 and 15 feet bgs. Groundwater that flows into excavations during construction activities will either be recharged in close proximity to active excavation or be treated prior to discharge to a storm drain such that the discharged effluent meets the effluent limitations established by Appendix III and Appendix IV of the RGP Application. Figure 3 includes a schematic of the proposed dewatering treatment system. A groundwater sample was collected from well SH-327 (see Figure 2) on March 19, 2012 and submitted for laboratory analysis of the parameters included in Appendix III of the RGP. The data, which was used to complete the NOI, is summarized in Table 1 and the laboratory analytical report is included in Appendix B.

The completed Notice of Intent for the Remediation General Permit form is included as Appendix A. Street Retail, Inc. (in its individual capacity, and as attorney in fact for the site owners) requests to be listed on the Permit as the Owner and Cranshaw requests to be listed on the Permit as the Operator. Discharge of treated water is scheduled to begin as early as June 11, 2012, pending authorization from the EPA and other agencies.

Thank you for your consideration of this NOI. Please feel free to contact us if you wish to discuss the information contained in this application, or if any additional information is needed.

Very truly yours,  
CRANSHAW CONSTRUCTION OF NEW ENGLAND, LP



Jeffrey A. Fishbone  
Senior Project Manager

- Encl. Table 1 – Summary of Groundwater Quality Data  
Figure 1 – Locus Plan  
Figure 2 – Location of Proposed Excavation  
Figure 3 – Proposed Groundwater Treatment Schematic  
Appendix A – Notice of Intent Form  
Appendix B – Laboratory Analytical Data Report  
Appendix C – Mystic River Calculations  
Appendix D – Federal Correspondence  
Appendix E – National Register of Historic Places, Somerville, Massachusetts  
Appendix F – Best Management Practices Plan
- Cc: City of Somerville Health Department  
SHA – Patricia Pinto, Duncan Wood  
FRIT – David Webster  
SDM – Frank Killilea, Vartan Getzoyan  
CCNE – Dan Feidler, Rich Regitano, Rob Zirpolo

## **TABLES**

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
Assembly Square  
Somerville, MA

| Sample ID                                    | Units | SH-327    | NPDES RGP Effluent Limit<br>(2010) for Saltwater |
|----------------------------------------------|-------|-----------|--------------------------------------------------|
| Sample Date                                  |       | 3/19/2012 |                                                  |
| General Parameters                           |       |           |                                                  |
| Total Suspended Solids                       | mg/l  | 1,200     | 30                                               |
| Total Cyanide <sup>2</sup>                   | ug/l  | <5        | 1.0                                              |
| Total Residual Chlorine <sup>2</sup>         | ug/l  | <20       | 7.5                                              |
| Total Phenols                                | ug/l  | <150      | 300                                              |
| Total Petroleum Hydrocarbons (TPH)           | mg/l  | <4.00     | 5                                                |
| Chloride <sup>4</sup>                        | mg/l  | 89        | Monitor Only                                     |
| Pesticides                                   |       |           |                                                  |
| 1,2-Dibromoethane (EDB) (Ethylene Dibromide) | ug/l  | <0.010    | 0.05                                             |
| Metals                                       |       |           |                                                  |
| Antimony, Total                              | ug/l  | 3.2       | 5.6                                              |
| Arsenic, Total                               | ug/l  | 165.2     | 36                                               |
| Cadmium, Total                               | ug/l  | 0.5       | 8.9                                              |
| Chromium, Total                              | ug/l  | 92.4      | 100                                              |
| Chromium, Hexavalent                         | ug/l  | <10       | 50.3                                             |
| Copper, Total                                | ug/l  | 193.7     | 3.7                                              |
| Iron, Total                                  | ug/l  | 62,000    | 1,000                                            |
| Lead, Total                                  | ug/l  | 136.6     | 8.5                                              |
| Mercury, Total                               | ug/l  | 0.2       | 1.1                                              |
| Nickel, Total                                | ug/l  | 50.1      | 8.2                                              |
| Selenium, Total                              | ug/l  | 4         | 71                                               |
| Silver, Total                                | ug/l  | <0.4      | 2.2                                              |
| Zinc, Total                                  | ug/l  | 461.8     | 85.6                                             |
| Volatile Organic Compounds (VOCs)            |       |           |                                                  |
| Methylene chloride (Dichloromethane)         | ug/l  | <3.0      | 4.6                                              |
| 1,1-Dichloroethane (DCA)                     | ug/l  | <0.75     | 70                                               |
| Chloroform                                   | ug/l  | <0.75     | NS                                               |
| Carbon tetrachloride                         | ug/l  | <0.50     | 4.4                                              |
| 1,2-Dichloropropane                          | ug/l  | <1.8      | NS                                               |
| Dibromochloromethane                         | ug/l  | <0.50     | NS                                               |
| 1,1,2-Trichloroethane (TCA)                  | ug/l  | <0.75     | 5.0                                              |
| Tetrachloroethene (PCE)                      | ug/l  | <0.50     | 5.0                                              |
| Chlorobenzene                                | ug/l  | <0.50     | NS                                               |
| Trichlorofluoromethane                       | ug/l  | <2.5      | NS                                               |
| 1,2-Dichloroethane (DCA)                     | ug/l  | <0.50     | 5.0                                              |
| 1,1,1-Trichloroethane (TCA)                  | ug/l  | <0.50     | 200                                              |
| Bromodichloromethane                         | ug/l  | <0.50     | NS                                               |
| trans-1,3-Dichloropropene                    | ug/l  | <0.50     | NS                                               |
| cis-1,3-Dichloropropene                      | ug/l  | <0.50     | NS                                               |
| 1,1-Dichloropropene                          | ug/l  | <2.5      | NS                                               |
| Bromoform                                    | ug/l  | <2.0      | NS                                               |

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
Assembly Square  
Somerville, MA

| Sample ID                      | Units | SH-327    | NPDES RGP Effluent Limit<br>(2010) for Saltwater |
|--------------------------------|-------|-----------|--------------------------------------------------|
| Sample Date                    |       | 3/19/2012 |                                                  |
| 1,1,2,2-Tetrachloroethane      | ug/l  | <0.50     | NS                                               |
| Benzene (B)                    | ug/l  | <0.50     | 5.0                                              |
| Toluene (T)                    | ug/l  | <0.75     | see Total BTEX                                   |
| Ethylbenzene (E)               | ug/l  | <0.50     | see Total BTEX                                   |
| Chloromethane                  | ug/l  | <2.5      | NS                                               |
| Bromomethane                   | ug/l  | <1.0      | NS                                               |
| Vinyl chloride (Chloroethene)  | ug/l  | <1.0      | 2.0                                              |
| Chloroethane                   | ug/l  | <1.0      | NS                                               |
| 1,1-Dichloroethene (DCE)       | ug/l  | <0.50     | 3.2                                              |
| trans-1,2-Dichloroethene       | ug/l  | <0.75     | NS                                               |
| Trichloroethene (TCE)          | ug/l  | <0.50     | 5.0                                              |
| 1,2-Dichlorobenzene (o-DCB)    | ug/l  | <2.5      | 600                                              |
| 1,3-Dichlorobenzene (m-DCB)    | ug/l  | <2.5      | 320                                              |
| 1,4-Dichlorobenzene (p-DCB)    | ug/l  | <2.5      | 5.0                                              |
| Methyl tert butyl ether (MtBE) | ug/l  | <1.0      | 70.0                                             |
| p/m-Xylene                     | ug/l  | <1.0      | see Total BTEX                                   |
| o-Xylene                       | ug/l  | <1.0      | see Total BTEX                                   |
| Xylene (Total) (X)             | ug/l  | <1.0      | see Total BTEX                                   |
| cis-1,2-Dichloroethene (DCE)   | ug/l  | <0.50     | 70                                               |
| Dibromomethane                 | ug/l  | <5.0      | NS                                               |
| 1,4-Dichlorobutane             | ug/l  | <5.0      | NS                                               |
| 1,2,3-Trichloropropane         | ug/l  | <5.0      | NS                                               |
| Styrene                        | ug/l  | <1.0      | NS                                               |
| Dichlorodifluoromethane        | ug/l  | <5.0      | NS                                               |
| Acetone <sup>4</sup>           | ug/l  | <5.0      | Monitor Only                                     |
| Carbon disulfide               | ug/l  | <5.0      | NS                                               |
| 2-Butanone                     | ug/l  | <5.0      | NS                                               |
| Vinyl acetate                  | ug/l  | <5.0      | NS                                               |
| 4-Methyl-2-pentanone           | ug/l  | <5.0      | NS                                               |
| 2-Hexanone                     | ug/l  | <5.0      | NS                                               |
| Ethyl methacrylate             | ug/l  | <5.0      | NS                                               |
| Acrylonitrile                  | ug/l  | <5.0      | NS                                               |
| Bromochloromethane             | ug/l  | <2.5      | NS                                               |
| Tetrahydrofuran                | ug/l  | <5.0      | NS                                               |
| 2,2-Dichloropropane            | ug/l  | <2.5      | NS                                               |
| 1,2-Dibromoethane              | ug/l  | <2.0      | NS                                               |
| 1,3-Dichloropropane            | ug/l  | <2.5      | NS                                               |
| 1,1,1,2-Tetrachloroethane      | ug/l  | <0.50     | NS                                               |
| Bromobenzene                   | ug/l  | <2.5      | NS                                               |
| n-Butylbenzene                 | ug/l  | <0.50     | NS                                               |
| sec-Butylbenzene               | ug/l  | <0.50     | NS                                               |
| tert-Butylbenzene              | ug/l  | <2.5      | NS                                               |
| o-Chlorotoluene                | ug/l  | <2.5      | NS                                               |
| p-Chlorotoluene                | ug/l  | <2.5      | NS                                               |

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
Assembly Square  
Somerville, MA

| Sample ID                                                | Units | SH-327    | NPDES RGP Effluent Limit<br>(2010) for Saltwater |
|----------------------------------------------------------|-------|-----------|--------------------------------------------------|
| Sample Date                                              |       | 3/19/2012 |                                                  |
| 1,2-Dibromo-3-chloropropane                              | ug/l  | <2.5      | NS                                               |
| Hexachlorobutadiene                                      | ug/l  | <0.50     | NS                                               |
| Isopropylbenzene                                         | ug/l  | <0.50     | NS                                               |
| p-Isopropyltoluene                                       | ug/l  | <0.50     | NS                                               |
| Naphthalene                                              | ug/l  | <2.5      | NS                                               |
| n-Propylbenzene                                          | ug/l  | <0.50     | NS                                               |
| 1,2,3-Trichlorobenzene                                   | ug/l  | <2.5      | NS                                               |
| 1,2,4-Trichlorobenzene                                   | ug/l  | <2.5      | NS                                               |
| 1,3,5-Trimethylbenzene                                   | ug/l  | <2.5      | NS                                               |
| 1,2,4-Trimethylbenzene                                   | ug/l  | <2.5      | NS                                               |
| trans-1,4-Dichloro-2-butene                              | ug/l  | <2.5      | NS                                               |
| Ethyl ether                                              | ug/l  | <2.5      | NS                                               |
| Tert-Butyl Alcohol (TBA) (Tertiary-Butanol) <sup>4</sup> | ug/l  | <10       | Monitor Only                                     |
| Tertiary-Amyl Methyl Ether (TAME) <sup>4</sup>           | ug/l  | <2.0      | Monitor Only                                     |
| Total BTEX <sup>3</sup>                                  | ug/l  | <1.0      | 100                                              |
| <b>Volatile Organic Compounds (SIM)</b>                  |       |           |                                                  |
| 1,4-Dioxane <sup>4</sup>                                 | ug/l  | <3.0      | Monitor Only                                     |
| <b>Semivolatile Organics (SVOCs)</b>                     |       |           |                                                  |
| Benzidine                                                | ug/l  | <20       | NS                                               |
| 1,2,4-Trichlorobenzene                                   | ug/l  | <5.0      | NS                                               |
| Bis(2-chloroethyl)ether                                  | ug/l  | <2.0      | NS                                               |
| 1,2-Dichlorobenzene                                      | ug/l  | <2.0      | NS                                               |
| 1,3-Dichlorobenzene                                      | ug/l  | <2.0      | NS                                               |
| 1,4-Dichlorobenzene                                      | ug/l  | <2.0      | NS                                               |
| 3,3'-Dichlorobenzidine                                   | ug/l  | <5.0      | NS                                               |
| 2,4-Dinitrotoluene                                       | ug/l  | <5.0      | NS                                               |
| 2,6-Dinitrotoluene                                       | ug/l  | <5.0      | NS                                               |
| Azobenzene                                               | ug/l  | <2.0      | NS                                               |
| 4-Chlorophenyl phenyl ether                              | ug/l  | <2.0      | NS                                               |
| 4-Bromophenyl phenyl ether                               | ug/l  | <2.0      | NS                                               |
| Bis(2-chloroisopropyl)ether                              | ug/l  | <2.0      | NS                                               |
| Bis(2-chloroethoxy)methane                               | ug/l  | <5.0      | NS                                               |
| Hexachlorocyclopentadiene                                | ug/l  | <20       | NS                                               |
| Isophorone                                               | ug/l  | <5.0      | NS                                               |
| Nitrobenzene                                             | ug/l  | <2.0      | NS                                               |
| NitrosoDiPhenylAmine(NDPA)/DPA                           | ug/l  | <2.0      | NS                                               |
| Bis(2-Ethylhexyl)phthalate <sup>5</sup>                  | ug/l  | <3.0      | 6.0                                              |
| Butyl benzyl phthalate <sup>5</sup>                      | ug/l  | <5.0      | see Total Phthalates                             |
| Di-n-butylphthalate <sup>5</sup>                         | ug/l  | <5.0      | see Total Phthalates                             |
| Di-n-octylphthalate <sup>5</sup>                         | ug/l  | <5.0      | see Total Phthalates                             |
| Diethyl phthalate <sup>5</sup>                           | ug/l  | <5.0      | see Total Phthalates                             |
| Dimethyl phthalate <sup>5</sup>                          | ug/l  | <5.0      | see Total Phthalates                             |

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
Assembly Square  
Somerville, MA

| Sample ID                                        | Units | SH-327    | NPDES RGP Effluent Limit<br>(2010) for Saltwater |
|--------------------------------------------------|-------|-----------|--------------------------------------------------|
| Sample Date                                      |       | 3/19/2012 |                                                  |
| Total Phthalates (Phthalate esters) <sup>6</sup> | ug/l  | <5.0      | 3.0                                              |
| Aniline                                          | ug/l  | <2.0      | NS                                               |
| 4-Chloroaniline                                  | ug/l  | <5.0      | NS                                               |
| 2-Nitroaniline                                   | ug/l  | <5.0      | NS                                               |
| 3-Nitroaniline                                   | ug/l  | <5.0      | NS                                               |
| 4-Nitroaniline                                   | ug/l  | <5.0      | NS                                               |
| Dibenzofuran                                     | ug/l  | <2.0      | NS                                               |
| n-Nitrosodimethylamine                           | ug/l  | <2.0      | NS                                               |
| 2,4,6-Trichlorophenol                            | ug/l  | <5.0      | NS                                               |
| P-Chloro-M-Cresol                                | ug/l  | <2.0      | NS                                               |
| 2-Chlorophenol                                   | ug/l  | <2.0      | NS                                               |
| 2,4-Dichlorophenol                               | ug/l  | <5.0      | NS                                               |
| 2,4-Dimethylphenol                               | ug/l  | <5.0      | NS                                               |
| 2-Nitrophenol                                    | ug/l  | <10       | NS                                               |
| 4-Nitrophenol                                    | ug/l  | <10       | NS                                               |
| 2,4-Dinitrophenol                                | ug/l  | <20       | NS                                               |
| 4,6-Dinitro-o-cresol                             | ug/l  | <10       | NS                                               |
| Phenol                                           | ug/l  | <5.0      | NS                                               |
| 2-Methylphenol                                   | ug/l  | <5.0      | NS                                               |
| 3-Methylphenol/4-Methylphenol                    | ug/l  | <5.0      | NS                                               |
| 2,4,5-Trichlorophenol                            | ug/l  | <5.0      | NS                                               |
| Benzoic Acid                                     | ug/l  | <50       | NS                                               |
| Benzyl Alcohol                                   | ug/l  | <2.0      | NS                                               |
| Carbazole                                        | ug/l  | <2.0      | NS                                               |
| Pyridine                                         | ug/l  | <5.0      | NS                                               |
| <b>Semivolatile Organics (SIM)</b>               |       |           |                                                  |
| Acenaphthene <sup>7</sup>                        | ug/l  | <0.20     | see Total Group II PAHs                          |
| 2-Chloronaphthalene                              | ug/l  | <0.20     | NS                                               |
| Fluoranthene <sup>7</sup>                        | ug/l  | <0.20     | see Total Group II PAHs                          |
| Hexachlorobutadiene                              | ug/l  | <0.50     | NS                                               |
| Naphthalene <sup>7</sup>                         | ug/l  | <0.20     | 20                                               |
| Benzo(a)anthracene <sup>8</sup>                  | ug/l  | <0.20     | 0.2                                              |
| Benzo(a)pyrene <sup>8</sup>                      | ug/l  | <0.20     | 0.2                                              |
| Benzo(b)fluoranthene <sup>8</sup>                | ug/l  | <0.20     | 0.2                                              |
| Benzo(k)fluoranthene <sup>8</sup>                | ug/l  | <0.20     | 0.2                                              |
| Chrysene <sup>8</sup>                            | ug/l  | <0.20     | 0.2                                              |
| Acenaphthylene <sup>7</sup>                      | ug/l  | <0.20     | see Total Group II PAHs                          |
| Anthracene <sup>7</sup>                          | ug/l  | <0.20     | see Total Group II PAHs                          |
| Benzo(ghi)perylene <sup>7</sup>                  | ug/l  | <0.20     | see Total Group II PAHs                          |
| Fluorene <sup>7</sup>                            | ug/l  | <0.20     | see Total Group II PAHs                          |
| Phenanthrene <sup>7</sup>                        | ug/l  | <0.20     | see Total Group II PAHs                          |
| Dibenzo(a,h)anthracene <sup>8</sup>              | ug/l  | <0.20     | 0.2                                              |
| Indeno(1,2,3-cd)Pyrene <sup>8</sup>              | ug/l  | <0.20     | 0.2                                              |

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
Assembly Square  
Somerville, MA

| Sample ID                                                           | Units | SH-327    | NPDES RGP Effluent Limit<br>(2010) for Saltwater |
|---------------------------------------------------------------------|-------|-----------|--------------------------------------------------|
| Sample Date                                                         |       | 3/19/2012 |                                                  |
| Pyrene <sup>7</sup>                                                 | ug/l  | <0.20     | see Total Group II PAHs                          |
| 1-Methylnaphthalene                                                 | ug/l  | <0.20     | NS                                               |
| 2-Methylnaphthalene                                                 | ug/l  | <0.20     | NS                                               |
| Pentachlorophenol (PCP)                                             | ug/l  | <0.80     | 1.0                                              |
| Hexachlorobenzene                                                   | ug/l  | <0.80     | NS                                               |
| Hexachloroethane                                                    | ug/l  | <0.80     | NS                                               |
| Total Group I Polycyclic Aromatic Hydrocarbons (PAH) <sup>9</sup>   | ug/l  | <0.20     | 10.0                                             |
| Total Group II Polycyclic Aromatic Hydrocarbons (PAH) <sup>10</sup> | ug/l  | <0.20     | 100                                              |
| <b>Polychlorinated Biphenyls (PCBs)</b>                             |       |           |                                                  |
| Aroclor 1016 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1221 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1232 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1242 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1248 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1254 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Aroclor 1260 <sup>11</sup>                                          | ug/l  | <0.258    | 0.5                                              |
| Total PCBs <sup>12</sup>                                            | ug/l  | <0.258    | 0.5                                              |

**Notes:**

1. The sample was collected by Sanborn, Head & Associates, Inc. personnel on the date indicated and was submitted to Alpha Analytical, Inc. of Westborough, MA for analysis. The sample is a grab sample from well SH-327.

2. The Laboratory Reporting Limit (RL) meets the requirements of Appendix VI of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) even though RL exceeds RGP Effluent Limit. For total Cyanide, EPA approved method 4500CN-CE meets the same minimum level as EPA method 335.4 (5 ug/l).

3. Total BTEX = Sum of benzene, toluene, ethylbenzene, and total xylenes.

4. Monitor Only means that the subject compound is not subject to a (criteria) limit, however, the Permittee is still required to monitor and report the effluent concentration.

5. Individual phthalate compound.

6. "Total phthalates" is the sum of individual phthalate compounds; According to RGP Q&A #37, the RL for total phthalates is the highest reported phthalate RL; RL is less than the requirements in Appendix VI of RGP, even though RL exceeds RGP Effluent Limit.

7. Group II PAHs.

8. Group I PAHs.

9. Sum of Group I PAHs.

10. Sum of Group II PAHs.

11. Individual PCB congener.

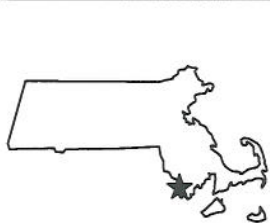
12. Total of PCB congeners.

13. 'SHADED' values indicate exceedences of the NPDES RGP Effluent Limits; which were taken from Appendix III of the RGP.

'<' = analytes not detected above laboratory reporting limits

'NS' = Not Specified

## FIGURES



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:  
 Boston North, MA, REV: 1985

Drawn By: R.Hirtle  
 Designed By: K. Walker  
 Reviewed By: P.Pinto  
 Project No: 3175.00  
 Date: April 2012

SCALE: 1:25,000

**SANBORN HEAD**

FIGURE 1

# Locus Plan

Notice of Intent for Remediation  
 General Permit

Block 3, Parcel 29  
 Somerville, Massachusetts



Figure No. 2

# Location of Proposed Excavation

## Notice of Intent for Remediation General Permit

Block 3, Parcel 29  
Somerville, Massachusetts

Drawn By: R. Hilde  
Designed By: P. Hilde  
Reviewed By: C. V. Hilde  
Project No. 3175.00  
Date: April 2012

### Figure Narrative

The base map was drawn from a plan entitled "Existing Conditions Plan, Super Shop & Shop, Somerville, Massachusetts, prepared by Vagen & Brainerd, Inc. (V&B) of Watertown, Massachusetts dated February 3, 1995, original scale 1" = 40'.

### Legend

- Former property line
- Current property line
- Proposed building footprint
- MCP RTN boundary areas
- Approximate location & designation of monitoring wells completed by Sanborn Head.
- Approximate limits of project site

GRAPHICAL SCALE  
0 60 120 180 240 Feet

**SANBORN** HEAD

Figure No. 3

Proposed Groundwater Treatment  
Schematic

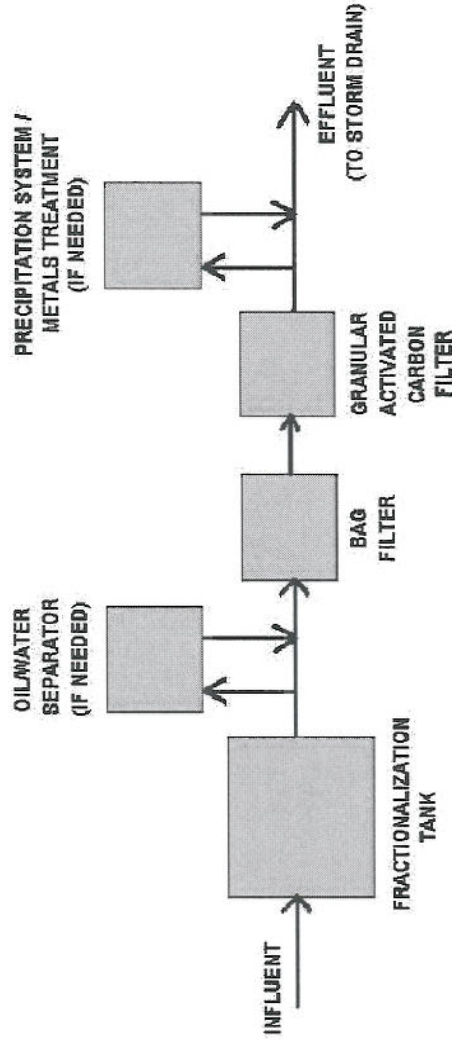
Notice of Intent for  
Remediation General Permit

Block 3, Parcel 29  
Somerville, Massachusetts

Drawn By: R.Hilde  
Designed By: K.Water  
Reviewed By: P.Pino  
Project No: 3175.00  
Date: April 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 discharged at the effluent point shall meet required effluent standards as specified in Appendix III and IV of the RGP.



NOT TO SCALE

## **APPENDIX A**

### **Notice of Intent Form**

**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: Block 3, Assembly Row                                                                                                                                          |                              | Facility/site mailing address:                                                                                                     |                                        |
| Location of facility/site:<br>longitude: 71.0759<br>latitude: 42.3940                                                                                                                    | Facility SIC code(s):<br>N/A | Street:<br>Facility: 100 Sturtevant Street, Somerville, MA<br>Mailing: FRIT, 4th Floor, 5 Middlesex Avenue<br>Somerville, MA 02145 |                                        |
| b) Name of facility/site owner: Street Retail, Inc.                                                                                                                                      |                              | Town: Somerville                                                                                                                   |                                        |
| Email address of facility/site owner:<br>DWebster@federalrealty.com                                                                                                                      |                              | State:<br>MA                                                                                                                       | County:<br>Middlesex                   |
| Telephone no. of facility/site owner: 617-684-1509                                                                                                                                       |                              | Zip:<br>02145                                                                                                                      |                                        |
| Fax no. of facility/site owner: 617-623-3601                                                                                                                                             |                              |                                                                                                                                    |                                        |
| Address of owner (if different from site):                                                                                                                                               |                              |                                                                                                                                    |                                        |
| Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/> 3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe: |                              |                                                                                                                                    |                                        |
| Street: 1626 East Jefferson Street                                                                                                                                                       |                              |                                                                                                                                    |                                        |
| Town: Rockville                                                                                                                                                                          | State: MD                    | Zip: 20852                                                                                                                         | County: Montgomery                     |
| c) Legal name of operator:<br>Cranshaw Construction                                                                                                                                      |                              | Operator telephone no: 617-965-7300                                                                                                |                                        |
| Operator contact name and title: Jeff Fishbone                                                                                                                                           |                              | Operator fax no.: 617-527-1977                                                                                                     | Operator email: JFishbone@cranshaw.com |
| Address of operator (if different from owner):                                                                                                                                           |                              | Street: 2310 Washington Street                                                                                                     |                                        |
| Town: Newton Lower Falls                                                                                                                                                                 | State: MA                    | Zip: 02462                                                                                                                         | County: Middlesex                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>d) Check Y for "yes" or N for "no" for the following:</p> <p>1. Has a prior NPDES permit exclusion been granted for the discharge? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> <p>2. Has a prior NPDES application (Form 1 &amp; 2C) ever been filed for the discharge? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, date and tracking #: <input type="text"/></p> <p>3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y <input checked="" type="radio"/> N <input type="radio"/></p> <p>4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y <input checked="" type="radio"/> N <input type="radio"/></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y <input type="radio"/> N <input checked="" type="radio"/></p> <p>If Y, please list:</p> <p>1. site identification # assigned by the state of NH or MA: <input type="text"/></p> <p>2. permit or license # assigned: <input type="text"/></p> <p>3. state agency contact information: name, location, and telephone number: <input type="text"/></p>                                                                                                                                                                                                                                                                                                              | <p>f) Is the site/facility covered by any other EPA permit, including:</p> <p>1. Multi-Sector General Permit? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> <p>2. Final Dewatering General Permit? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> <p>3. EPA Construction General Permit? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> <p>4. Individual NPDES permit? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> <p>5. any other water quality related individual or general permit? Y <input type="radio"/> N <input checked="" type="radio"/>, if Y, number: <input type="text"/></p> |
| <p>g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y <input type="radio"/> N <input checked="" type="radio"/></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>Activity Category</b></p> <p>I - Petroleum Related Site Remediation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p><b>Activity Sub-Category</b></p> <p>A. Gasoline Only Sites <input type="checkbox"/></p> <p>B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/></p> <p>C. Petroleum Sites with Additional Contamination <input checked="" type="checkbox"/></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>II - Non Petroleum Site Remediation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/></p> <p>B. VOC Sites with Additional Contamination <input type="checkbox"/></p> <p>C. Primarily Heavy Metal Sites <input type="checkbox"/></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>III - Contaminated Construction Dewatering</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>A. General Urban Fill Sites <input checked="" type="checkbox"/></p> <p>B. Known Contaminated Sites <input checked="" type="checkbox"/></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IV - Miscellaneous Related Discharges | <p>A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites <input type="checkbox"/></p> <p>B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites <input type="checkbox"/></p> <p>C. Hydrostatic Testing of Pipelines and Tanks <input type="checkbox"/></p> <p>D. Long-Term Remediation of Contaminated Sumps and Dikes <input type="checkbox"/></p> <p>E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) <input type="checkbox"/></p> |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|
| <p>a) Describe the discharge activities for which the owner/applicant is seeking coverage:</p> <p>Temporary construction dewatering in support of storm drain outfall installation, other utility installations, and MCP remediation efforts required to prepare site for the redevelopment construction.</p>                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>b) Provide the following information about each discharge:</p>                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>1) Number of discharge points: 1</p>                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>2) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft<sup>3</sup>/s)?</p> <p>Max. flow 0.22 Is maximum flow a design value? Y <input type="radio"/> N <input checked="" type="radio"/></p> <p>Average flow (include units) 0.11 ft<sup>3</sup>/s Is average flow a design value or estimate? Estimate</p> |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>3) Latitude and longitude of each discharge within 100 feet:</p> <table border="1"> <tr> <td>pt. 1: lat. 42.394</td> <td>long. 71.073</td> <td>pt. 2: lat.</td> <td>long.</td> </tr> <tr> <td>pt. 3: lat.</td> <td>long.</td> <td>pt. 4: lat.</td> <td>long.</td> </tr> <tr> <td>pt. 5: lat.</td> <td>long.</td> <td>pt. 6: lat.</td> <td>long.</td> </tr> <tr> <td>pt. 7: lat.</td> <td>long.</td> <td>pt. 8: lat.</td> <td>long.</td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                              | pt. 1: lat. 42.394 | long. 71.073 | 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. |
| pt. 1: lat. 42.394                                                                                                                                                                                                                                                                                                                                                                                                                                        | long. 71.073                                                                                                                                                                                                                                                                                                                                                 | 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.        |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>4) If hydrostatic testing, total volume of the discharge (gals):</p>                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ?</p> <p>Is discharge ongoing? Y <input type="radio"/> N <input checked="" type="radio"/></p>                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>c) Expected dates of discharge (mm/dd/yy): start 6/11/2012 end 3/3/2014</p>                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |
| <p>d) Please attach a line drawing or flow schematic showing water flow through the facility including:</p> <p>1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s) See attached figure</p>                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                              |                    |              |             |       |             |       |             |       |             |       |             |       |             |       |             |       |

### 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.

| <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</u>  |                  | <u>Average daily value</u>  |                  |
|---------------------------------------------------------------|-----------------------------------------|-------------------------------------|-------------------------------------|---------------------|---------------------------------|------------------------------------------|------------------------------------------|-----------------------------|------------------|-----------------------------|------------------|
|                                                               |                                         |                                     |                                     |                     |                                 |                                          |                                          | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 1. Total Suspended Solids (TSS)                               |                                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1                   | Grab                            | 2540D                                    | 50,000                                   | 1,200,000                   |                  |                             |                  |
| 2. Total Residual Chlorine (TRC)                              |                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 4500CL-D                                 | 20                                       | ND                          |                  |                             |                  |
| 3. Total Petroleum Hydrocarbons (TPH)                         |                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 1664A                                    | 4000                                     | ND                          |                  |                             |                  |
| 4. Cyanide (CN)                                               | 57125                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 4500CN-CE                                | 5                                        | ND                          |                  |                             |                  |
| 5. Benzene (B)                                                | 71432                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 6. Toluene (T)                                                | 108883                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 0.75                                     | ND                          |                  |                             |                  |
| 7. Ethylbenzene (E)                                           | 100414                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 8. (m,p,o) Xylenes (X)                                        | 108883;<br>106423;<br>95476;<br>1330207 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 1.0                                      | ND                          |                  |                             |                  |
| 9. Total BTEX <sup>2</sup>                                    | n/a                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 1.0                                      | ND                          |                  |                             |                  |
| 10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup> | 106934                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 0.010                                    | ND                          |                  |                             |                  |
| 11. Methyl-tert-Butyl Ether (MTBE)                            | 1634044                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 1.0                                      | ND                          |                  |                             |                  |
| 12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)               | 75650                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1                   | Grab                            | 8260B                                    | 10                                       | ND                          |                  |                             |                  |

\* 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.

<sup>2</sup> BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

<sup>3</sup> 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</u>  |                  | <u>Average daily value</u>  |                  |
|-----------------------------------|-------------------|-------------------------------------|--------------------------|---------------------|---------------------------------|------------------------------------------|------------------------------------------|-----------------------------|------------------|-----------------------------|------------------|
|                                   |                   |                                     |                          |                     |                                 |                                          |                                          | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 13. tert-Amyl Methyl Ether (TAME) | 9940508           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.0                                      | ND                          |                  |                             |                  |
| 14. Naphthalene                   | 91203             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.5                                      | ND                          |                  |                             |                  |
| 15. Carbon Tetrachloride          | 56235             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 16. 1,2 Dichlorobenzene (o-DCB)   | 95501             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.5                                      | ND                          |                  |                             |                  |
| 17. 1,3 Dichlorobenzene (m-DCB)   | 541731            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.5                                      | ND                          |                  |                             |                  |
| 18. 1,4 Dichlorobenzene (p-DCB)   | 106467            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.5                                      | ND                          |                  |                             |                  |
| 18a. Total dichlorobenzene        |                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 2.5                                      | ND                          |                  |                             |                  |
| 19. 1,1 Dichloroethane (DCA)      | 75343             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.75                                     | ND                          |                  |                             |                  |
| 20. 1,2 Dichloroethane (DCA)      | 107062            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 21. 1,1 Dichloroethene (DCE)      | 75354             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 22. cis-1,2 Dichloroethene (DCE)  | 156592            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 23. Methylene Chloride            | 75092             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 3.0                                      | ND                          |                  |                             |                  |
| 24. Tetrachloroethene (PCE)       | 127184            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 25. 1,1,1 Trichloro-ethane (TCA)  | 71556             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |
| 26. 1,1,2 Trichloro-ethane (TCA)  | 79005             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.75                                     | ND                          |                  |                             |                  |
| 27. Trichloroethene (TCE)         | 79016             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 0.50                                     | ND                          |                  |                             |                  |

| <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</u>  |                  | <u>Average daily value</u>  |                  |
|--------------------------------------------------------------|-------------------|-------------------------------------|--------------------------|---------------------|---------------------------------|------------------------------------------|------------------------------------------|-----------------------------|------------------|-----------------------------|------------------|
|                                                              |                   |                                     |                          |                     |                                 |                                          |                                          | <u>concentration (ug/l)</u> | <u>mass (kg)</u> | <u>concentration (ug/l)</u> | <u>mass (kg)</u> |
| 28. Vinyl Chloride (Chloroethene)                            | 75014             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 1.0                                      | ND                          |                  |                             |                  |
| 29. Acetone                                                  | 67641             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B                                    | 5.0                                      | ND                          |                  |                             |                  |
| 30. 1,4 Dioxane                                              | 123911            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8260B(M)                                 | 3.0                                      | ND                          |                  |                             |                  |
| 31. Total Phenols                                            | 108952            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 420.1                                    | 150                                      | ND                          |                  |                             |                  |
| 32. Pentachlorophenol (PCP)                                  | 87865             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.80                                     | ND                          |                  |                             |                  |
| 33. Total Phthalates (Phthalate esters) <sup>4</sup>         |                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C                                    | 5.0                                      | ND                          |                  |                             |                  |
| 34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate] | 117817            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C                                    | 3.0                                      | ND                          |                  |                             |                  |
| 35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)     |                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| a. Benzo(a) Anthracene                                       | 56553             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| b. Benzo(a) Pyrene                                           | 50328             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| c. Benzo(b)Fluoranthene                                      | 205992            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| d. Benzo(k)Fluoranthene                                      | 207089            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| e. Chrysene                                                  | 21801             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| f. Dibenzo(a,h)anthracene                                    | 53703             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| g. Indeno(1,2,3-cd) Pyrene                                   | 193395            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)    |                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1                   | Grab                            | 8270C-SIM                                | 0.20                                     | ND                          |                  |                             |                  |

<sup>4</sup> 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                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| i. Acenaphthylene                          | 208968                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| j. Anthracene                              | 120127                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| k. Benzo(ghi) Perylene                     | 191242                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| l. Fluoranthene                            | 206440                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| m. Fluorene                                | 86737                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| n. Naphthalene                             | 91203                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| o. Phenanthrene                            | 85018                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| p. Pyrene                                  | 129000                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 8270C-SIM                         | 0.20                              | ND                   |           |                      |           |
| 37. Total Polychlorinated Biphenyls (PCBs) | 85687;<br>84742;<br>117840;<br>84662;<br>131113;<br>117817. | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 608                               | 0.258                             | ND                   |           |                      |           |
|                                            | 38. Chloride                                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 300.0                             | 5000                              | 89000                |           |                      |           |
|                                            | 39. Antimony                                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 3.2                  |           |                      |           |
|                                            | 40. Arsenic                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 165.2                |           |                      |           |
|                                            | 41. Cadmium                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.2                               | 0.5                  |           |                      |           |
| 42. Chromium III (trivalent)               | 16065831                                                    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 92.4                 |           |                      |           |
| 43. Chromium VI (hexavalent)               | 18540299                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 3500CR-D                          | 10                                | ND                   |           |                      |           |
| 44. Copper                                 | 7440508                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 193.7                |           |                      |           |
| 45. Lead                                   | 7439921                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 136.6                |           |                      |           |
| 46. Mercury                                | 7439976                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 245.1                             | 0.2                               | 0.2                  |           |                      |           |
| 47. Nickel                                 | 7440020                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 0.5                               | 50.1                 |           |                      |           |
| 48. Selenium                               | 7782492                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 1                                 | 4                    |           |                      |           |
| 49. Silver                                 | 7440224                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1            | Grab                     | 6020                              | 0.4                               | ND                   |           |                      |           |
| 50. Zinc                                   | 7440666                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 6020                              | 5.0                               | 461.8                |           |                      |           |
| 51. Iron                                   | 7439896                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 1            | Grab                     | 200.7                             | 50                                | 62000                |           |                      |           |
| Other (describe):                          |                                                             | <input type="checkbox"/>            | <input type="checkbox"/>            |              |                          |                                   |                                   |                      |           |                      |           |

| 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) | concentration (ug/l) | mass (kg) |
|             |            | <input type="checkbox"/> | <input type="checkbox"/> |              |                          |                                   |                                   |           |                      |           |                      |           |
|             |            | <input type="checkbox"/> | <input type="checkbox"/> |              |                          |                                   |                                   |           |                      |           |                      |           |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><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 ___</p>                                                                                                                                                                                                                                                                                               | <p>If yes, which metals?</p>                                                                                                                                                                                                                                                                                                                                              |
| <p><i>Step 2:</i> For any metals which exceed the <b>Appendix III</b> limits, calculate the <b>dilution factor (DF)</b> 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?</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Etc.</p> | <p>Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV</b>. Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?</p> <p>Y ___ N ___ If Y, list which metals:</p> |

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 construction activities will either be pumped to a recharge trench or pumped to a treatment system prior to discharge into a storm drain. The first element to the treatment system will be a fractionalization tank where solids will settle out. The effluent will then be passed through the following as necessary: an oil/water separator, a bag filter, a granular activated carbon filter, and a precipitation system/metals treatment. The effluent will then be discharged to the existing storm drain system.

|                                                                    |                                                |                                          |                                                         |                                                   |                                                |                                                |
|--------------------------------------------------------------------|------------------------------------------------|------------------------------------------|---------------------------------------------------------|---------------------------------------------------|------------------------------------------------|------------------------------------------------|
| b) Identify each applicable treatment unit (check all that apply): | Frac. tank <input checked="" type="checkbox"/> | Air stripper <input type="checkbox"/>    | Oil/water separator <input checked="" type="checkbox"/> | Equalization tanks <input type="checkbox"/>       | Bag filter <input checked="" type="checkbox"/> | GAC filter <input checked="" type="checkbox"/> |
|                                                                    | Chlorination <input type="checkbox"/>          | De-chlorination <input type="checkbox"/> | Other (please describe):                                | Precipitation system/metals treatment (as needed) |                                                |                                                |

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):

**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 <input type="checkbox"/> | Within facility (sewer) <input type="checkbox"/> | Storm drain <input checked="" type="checkbox"/> | Wetlands <input type="checkbox"/> | Other (describe):<br><input type="text" value="on-site recharge"/> |
| b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:<br>Dewatering effluent will enter existing storm drains on-site. All storm drains lead to the new 72 inch drain, which outfalls to the Mystic River below A.E. Dam.                                                                                                                                                                                                                                                                                          |                                                    |                                                  |                                                 |                                   |                                                                    |
| c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:<br>1. For multiple discharges, number the discharges sequentially.<br>2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water<br>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 <input type="text" value="B"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    |                                                  |                                                 |                                   |                                                                    |
| e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <input type="text" value="18.37 cfs from upstream river"/> cfs<br>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 <input checked="" type="radio"/> N <input type="radio"/> If yes, for which pollutant(s)?<br>Priority organics, metals, unionized ammonia, other inorganics, organic enrichment/Low DO, pathogens, oil & grease, taste/odor/color.<br>Is there a final TMDL? Y <input type="radio"/> N <input checked="" type="radio"/> If yes, for which pollutant(s)? <input type="text"/>                                                                                                         |                                                    |                                                  |                                                 |                                   |                                                                    |

**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 includes the laboratory analytical data report collected by Sanborn, Head & Associates, Inc. on March 19, 2012.  
Appendix C includes calculations for the 7Q10 flows and the dilution factor.  
Appendix D includes correspondence from the National Oceanic and Atmospheric Administration and the US Fish and Wildlife Service.  
Appendix E includes a list of Historic Places in Somerville, Massachusetts.  
Appendix F includes 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:   | Block 3, Assembly Row                                                               |
| Operator signature:   |  |
| Printed Name & Title: | Jeff Fishbone, Cranshaw Construction                                                |
| Date:                 | May 23, 2012                                                                        |

## **APPENDIX B**

### **Laboratory Analytical Data Report**



## ANALYTICAL REPORT

|                 |                                                                                   |
|-----------------|-----------------------------------------------------------------------------------|
| Lab Number:     | L1204618                                                                          |
| Client:         | Sanborn, Head & Associates, Inc.<br>1 Technology Park Drive<br>Westford, MA 01886 |
| ATTN:           | Tricia Pinto                                                                      |
| Phone:          | (978) 577-1012                                                                    |
| Project Name:   | FOLEY                                                                             |
| Project Number: | 3175                                                                              |
| Report Date:    | 03/26/12                                                                          |

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](http://www.alphalab.com)



**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b>    | <b>Sample<br/>Location</b> | <b>Collection<br/>Date/Time</b> |
|----------------------------|---------------------|----------------------------|---------------------------------|
| L1204618-01                | TRIP BLANK-504,8260 | SOMERVILLE, MA             | 03/19/12 00:00                  |
| L1204618-02                | SH-327              | SOMERVILLE, MA             | 03/19/12 09:00                  |

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

### 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.

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.

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

---

### Volatile Organics

The WG524584-1/-2 LCS/LCSD recoveries, associated with L1204618-02, are below the individual acceptance criteria for Chloromethane (48%/46%) and 2,2-Dichloropropane (LCS at 56%), but within the overall method allowances. The results of the associated sample are reported.

The WG524584-1/-2 LCS/LCSD RPDs, associated with L1204618-02, are above the acceptance criteria for o-Xylene (23%), 1,4-Dichlorobutane (27%), Styrene (22%), Carbon disulfide (25%), Vinyl acetate (23%), 2-Hexanone (21%), Ethyl methacrylate (29%), Tetrahydrofuran (22%), 2,2-Dichloropropane (29%), n-Butylbenzene (24%), sec-Butylbenzene (21%), tert-Butylbenzene (22%), Hexachlorobutadiene (26%), p-Isopropyltoluene (23%), 1,2,4-Trimethylbenzene (22%), trans-1,4-Dichloro-2-butene (27%), tert-Butyl

Project Name: FOLEY  
Project Number: 3175

Lab Number: L1204618  
Report Date: 03/26/12

### Case Narrative (continued)

Alcohol (26%), and Tertiary-Amyl Methyl Ether (22%).

#### Semivolatile Organics

The WG524109-2/-3 LCS/LCSD recoveries, associated with L1204618-02, are outside the individual acceptance criteria for 2,4-Dinitrotoluene (97%/105%), Aniline (24%/24%), and 2,4-Dinitrophenol (LCSD at 136%), but within the overall method allowances. The results of the associated samples are reported.

#### Metals

The WG524535-4 MS recovery for Iron (0%), performed on L1204618-02, does not apply because the sample concentration is greater than four times the spike amount added.

#### Phenolics, Total

L1204618-02 has an elevated detection limit due to the dilution required by the sample matrix.

#### Chlorine, Total Residual

WG523939: 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:



Elizabeth Simmons

Title: Technical Director/Representative

Date: 03/26/12

# ORGANICS

# **VOLATILES**

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

## SAMPLE RESULTS

Lab ID: L1204618-02  
 Client ID: SH-327  
 Sample Location: SOMERVILLE, MA  
 Matrix: Water  
 Analytical Method: 1,8260B  
 Analytical Date: 03/22/12 12:30  
 Analyst: PD

Date Collected: 03/19/12 09:00  
 Date Received: 03/19/12  
 Field Prep: Not Specified

| Parameter                                    | Result | Qualifier | Units | RL   | MDL | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |     |                 |
| Methylene chloride                           | ND     |           | ug/l  | 3.0  | --  | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 0.75 | --  | 1               |
| Chloroform                                   | ND     |           | ug/l  | 0.75 | --  | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | --  | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.8  | --  | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | --  | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 0.75 | --  | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | --  | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 0.50 | --  | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | --  | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 0.50 | --  | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | --  | 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  | 2.5  | --  | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | --  | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | --  | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | --  | 1               |
| Toluene                                      | ND     |           | ug/l  | 0.75 | --  | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 0.50 | --  | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | --  | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 1.0  | --  | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | --  | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 1.0  | --  | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | --  | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 0.75 | --  | 1               |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | --  | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | --  | 1               |

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

## SAMPLE RESULTS

Lab ID: L1204618-02  
 Client ID: SH-327  
 Sample Location: SOMERVILLE, MA

Date Collected: 03/19/12 09:00  
 Date Received: 03/19/12  
 Field Prep: Not Specified

| Parameter                                    | Result | Qualifier | Units | RL   | MDL | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |     |                 |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 1.0  | --  | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 1.0  | --  | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 1.0  | --  | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 0.50 | --  | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | --  | 1               |
| 1,4-Dichlorobutane                           | ND     |           | ug/l  | 5.0  | --  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 5.0  | --  | 1               |
| Styrene                                      | ND     |           | ug/l  | 1.0  | --  | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | --  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | --  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | --  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | --  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | --  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | --  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | --  | 1               |
| Ethyl methacrylate                           | ND     |           | ug/l  | 5.0  | --  | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | --  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | --  | 1               |
| Tetrahydrofuran                              | ND     |           | ug/l  | 5.0  | --  | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | --  | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | --  | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | --  | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 0.50 | --  | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 0.50 | --  | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | --  | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | --  | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | --  | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 0.50 | --  | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 0.50 | --  | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 0.50 | --  | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | --  | 1               |
| n-Propylbenzene                              | ND     |           | ug/l  | 0.50 | --  | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5  | --  | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5  | --  | 1               |



Project Name: FOLEY  
Project Number: 3175

Serial\_No:03261210:31  
Lab Number: L1204618  
Report Date: 03/26/12

**SAMPLE RESULTS**

Lab ID: L1204618-02  
Client ID: SH-327  
Sample Location: SOMERVILLE, MA

Date Collected: 03/19/12 09:00  
Date Received: 03/19/12  
Field Prep: Not Specified

| Parameter                                    | Result | Qualifier | Units | RL  | MDL | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|-----|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |     |                 |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | --  | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | --  | 1               |
| Tert-Butyl Alcohol                           | ND     |           | ug/l  | 10  | --  | 1               |
| Tertiary-Amyl Methyl Ether                   | ND     |           | ug/l  | 2.0 | --  | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 122        |           | 70-130              |
| Toluene-d8            | 100        |           | 70-130              |
| 4-Bromofluorobenzene  | 98         |           | 70-130              |
| Dibromofluoromethane  | 101        |           | 70-130              |



**Project Name:** FOLEY  
**Project Number:** 3175

Serial\_No:03261210:31  
**Lab Number:** L1204618  
**Report Date:** 03/26/12

**SAMPLE RESULTS**

**Lab ID:** L1204618-02  
**Client ID:** SH-327  
**Sample Location:** SOMERVILLE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8260B(M)  
**Analytical Date:** 03/22/12 12:30  
**Analyst:** PD

**Date Collected:** 03/19/12 09:00  
**Date Received:** 03/19/12  
**Field Prep:** Not Specified

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



**Project Name:** FOLEY  
**Project Number:** 3175

Serial\_No:03261210:31  
**Lab Number:** L1204618  
**Report Date:** 03/26/12

**SAMPLE RESULTS**

**Lab ID:** L1204618-02  
**Client ID:** SH-327  
**Sample Location:** SOMERVILLE, MA  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 03/21/12 11:41  
**Analyst:** SH

**Date Collected:** 03/19/12 09:00  
**Date Received:** 03/19/12  
**Field Prep:** Not Specified  
**Extraction Date:** 03/21/12 09:30

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

# PCBS

Project Name: FOLEY  
Project Number: 3175

Serial\_No:03261210:31  
Lab Number: L1204618  
Report Date: 03/26/12

### SAMPLE RESULTS

Lab ID: L1204618-02  
Client ID: SH-327  
Sample Location: SOMERVILLE, MA  
Matrix: Water  
Analytical Method: 5,608  
Analytical Date: 03/22/12 02:24  
Analyst: KB

Date Collected: 03/19/12 09:00  
Date Received: 03/19/12  
Field Prep: Not Specified  
Extraction Method: EPA 608  
Extraction Date: 03/20/12 16:53  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 03/21/12  
Cleanup Method2: EPA 3660B  
Cleanup Date2: 03/21/12

| Parameter                                         | Result | Qualifier | Units | RL    | MDL | Dilution Factor |
|---------------------------------------------------|--------|-----------|-------|-------|-----|-----------------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |     |                 |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.258 | --  | 1               |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.258 | --  | 1               |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria |
|------------------------------|------------|-----------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 48         |           | 30-150              |
| Decachlorobiphenyl           | 55         |           | 30-150              |



Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

**Method Blank Analysis**  
**Batch Quality Control**Analytical Method: 5,608  
Analytical Date: 03/22/12 01:57  
Analyst: KBExtraction Method: EPA 608  
Extraction Date: 03/20/12 16:53  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 03/21/12  
Cleanup Method2: EPA 3660B  
Cleanup Date2: 03/21/12

| Parameter                                                                             | Result | Qualifier | Units | RL    | MDL |
|---------------------------------------------------------------------------------------|--------|-----------|-------|-------|-----|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG524112-1 |        |           |       |       |     |
| 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<br>Criteria |
|------------------------------|-----------|-----------|------------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 56        |           | 30-150                 |
| Decachlorobiphenyl           | 85        |           | 30-150                 |

# Matrix Spike Analysis

Batch Quality Control

Project Name: FOLEY  
Project Number: 3175

Lab Number: L1204618  
Report Date: 03/26/12

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|-----------|---------------|----------|-----------------|----------|------------|
|-----------|---------------|----------|----------|--------------|-----------|---------------|----------|-----------------|----------|------------|

Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524112-3 QC Sample: L1204618-02 Client ID: SH-327

|              |    |   |      |    |   |   |   |        |   |    |
|--------------|----|---|------|----|---|---|---|--------|---|----|
| Aroclor 1016 | ND | 2 | 1.36 | 68 | - | - | - | 40-140 | - | 50 |
| Aroclor 1260 | ND | 2 | 1.32 | 66 | - | - | - | 40-140 | - | 50 |

| Surrogate                    | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|------------------------------|---------------|--------------|----------------|---------------|---------------------|
| 2,4,5,6-Tetrachloro-m-xylene | 52            |              |                |               | 30-150              |
| Decachlorobiphenyl           | 65            |              |                |               | 30-150              |

## Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

| Parameter                                                                                    | LCS       |      | LCSD      |      | %Recovery |      | Limits |  | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------|-----------|------|-----------|------|-----------|------|--------|--|-----|------|------------|
|                                                                                              | %Recovery | Qual | %Recovery | Qual | %Recovery | Qual |        |  |     |      |            |
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG524112-2 |           |      |           |      |           |      |        |  |     |      |            |
| Aroclor 1016                                                                                 | 58        |      | -         |      | 40-140    |      |        |  | -   |      | 50         |
| Aroclor 1260                                                                                 | 58        |      | -         |      | 40-140    |      |        |  | -   |      | 50         |

| Surrogate                    | LCS       |      | LCSD      |      | Acceptance |  |
|------------------------------|-----------|------|-----------|------|------------|--|
|                              | %Recovery | Qual | %Recovery | Qual | Criteria   |  |
| 2,4,5,6-Tetrachloro-m-xylene | 40        |      |           |      | 30-150     |  |
| Decachlorobiphenyl           | 64        |      |           |      | 30-150     |  |

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter                                                                                                                                   | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524112-4 QC Sample: L1204618-02 Client ID: SH-327 |               |                  |       |     |      |            |
| 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 | 48        |           | 54        |           | 30-150              |
| Decachlorobiphenyl           | 55        |           | 65        |           | 30-150              |



## **METALS**

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

## SAMPLE RESULTS

Lab ID: L1204618-02

Date Collected: 03/19/12 09:00

Client ID: SH-327

Date Received: 03/19/12

Sample Location: SOMERVILLE, MA

Field Prep: Not Specified

Matrix: Water

| Parameter                      | Result | Qualifier | Units | RL     | MDL | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Prep<br>Method | Analytical<br>Method | Analyst |
|--------------------------------|--------|-----------|-------|--------|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Westborough Lab |        |           |       |        |     |                    |                  |                  |                |                      |         |
| Antimony, Total                | 0.0032 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Arsenic, Total                 | 0.1652 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Cadmium, Total                 | 0.0005 |           | mg/l  | 0.0002 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Chromium, Total                | 0.0924 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Copper, Total                  | 0.1937 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Iron, Total                    | 62     |           | mg/l  | 0.05   | --  | 1                  | 03/22/12 13:10   | 03/23/12 07:39   | EPA 3005A      | 19,200.7             | AI      |
| Lead, Total                    | 0.1366 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Mercury, Total                 | 0.0002 |           | mg/l  | 0.0002 | --  | 1                  | 03/22/12 10:25   | 03/22/12 14:46   | EPA 245.1      | 3,245.1              | KL      |
| Nickel, Total                  | 0.0501 |           | mg/l  | 0.0005 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Selenium, Total                | 0.004  |           | mg/l  | 0.001  | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Silver, Total                  | ND     |           | mg/l  | 0.0004 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |
| Zinc, Total                    | 0.4618 |           | mg/l  | 0.0050 | --  | 1                  | 03/22/12 13:10   | 03/23/12 16:59   | EPA 3005A      | 1,6020               | AK      |



Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

### Method Blank Analysis Batch Quality Control

| Parameter                                                          | Result Qualifier | Units | RL     | MDL | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|--------------------------------------------------------------------|------------------|-------|--------|-----|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Westborough Lab for sample(s): 02 Batch: WG524337-1 |                  |       |        |     |                 |                |                |                   |         |
| Mercury, Total                                                     | ND               | mg/l  | 0.0002 | --  | 1               | 03/22/12 10:25 | 03/22/12 14:36 | 3,245.1           | KL      |

#### Prep Information

Digestion Method: EPA 245.1

| Parameter                                                          | Result Qualifier | Units | RL     | MDL | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|--------------------------------------------------------------------|------------------|-------|--------|-----|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Westborough Lab for sample(s): 02 Batch: WG524515-1 |                  |       |        |     |                 |                |                |                   |         |
| Antimony, Total                                                    | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Arsenic, Total                                                     | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Cadmium, Total                                                     | ND               | mg/l  | 0.0002 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Chromium, Total                                                    | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Copper, Total                                                      | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Lead, Total                                                        | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Nickel, Total                                                      | ND               | mg/l  | 0.0005 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Selenium, Total                                                    | ND               | mg/l  | 0.001  | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Silver, Total                                                      | ND               | mg/l  | 0.0004 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |
| Zinc, Total                                                        | ND               | mg/l  | 0.0050 | --  | 1               | 03/22/12 13:10 | 03/23/12 17:06 | 1,6020            | AK      |

#### Prep Information

Digestion Method: EPA 3005A

| Parameter                                                          | Result Qualifier | Units | RL   | MDL | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|--------------------------------------------------------------------|------------------|-------|------|-----|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Westborough Lab for sample(s): 02 Batch: WG524535-1 |                  |       |      |     |                 |                |                |                   |         |
| Iron, Total                                                        | ND               | mg/l  | 0.05 | --  | 1               | 03/22/12 13:10 | 03/23/12 07:33 | 19,200.7          | AI      |

#### Prep Information

Digestion Method: EPA 3005A



# Lab Control Sample Analysis Batch Quality Control

Project Name: FOLEY  
Project Number: 3175

Lab Number: L1204618  
Report Date: 03/26/12

| Parameter                                                                 | LCS<br>%Recovery | Qual | LCS<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------|------------------|------|------------------|------|---------------------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): 02 Batch: WG524337-2 |                  |      |                  |      |                     |     |      |            |
| Mercury, Total                                                            | 106              |      | -                |      | 85-115              | -   |      |            |
| Total Metals - Westborough Lab Associated sample(s): 02 Batch: WG524515-2 |                  |      |                  |      |                     |     |      |            |
| Antimony, Total                                                           | 96               |      | -                |      | 80-120              | -   |      |            |
| Arsenic, Total                                                            | 103              |      | -                |      | 80-120              | -   |      |            |
| Cadmium, Total                                                            | 108              |      | -                |      | 80-120              | -   |      |            |
| Chromium, Total                                                           | 98               |      | -                |      | 80-120              | -   |      |            |
| Copper, Total                                                             | 100              |      | -                |      | 80-120              | -   |      |            |
| Lead, Total                                                               | 100              |      | -                |      | 80-120              | -   |      |            |
| Nickel, Total                                                             | 100              |      | -                |      | 80-120              | -   |      |            |
| Selenium, Total                                                           | 110              |      | -                |      | 80-120              | -   |      |            |
| Silver, Total                                                             | 96               |      | -                |      | 80-120              | -   |      |            |
| Zinc, Total                                                               | 104              |      | -                |      | 80-120              | -   |      |            |
| Total Metals - Westborough Lab Associated sample(s): 02 Batch: WG524535-2 |                  |      |                  |      |                     |     |      |            |
| Iron, Total                                                               | 100              |      | -                |      | 85-115              | -   |      |            |

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|-----------|---------------|-----------------|----------|------------|
|-----------|---------------|----------|----------|--------------|-----------|---------------|-----------------|----------|------------|

Total Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524337-4 QC Sample: L1204618-02 Client ID: SH-327

|                |        |       |        |    |   |   |        |   |    |
|----------------|--------|-------|--------|----|---|---|--------|---|----|
| Mercury, Total | 0.0002 | 0.001 | 0.0010 | 75 | - | - | 70-130 | - | 20 |
|----------------|--------|-------|--------|----|---|---|--------|---|----|

Total Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524515-4 QC Sample: L1204625-01 Client ID: MS Sample

|                 |        |       |        |     |   |   |        |   |    |
|-----------------|--------|-------|--------|-----|---|---|--------|---|----|
| Antimony, Total | 0.0007 | 0.5   | 0.4961 | 99  | - | - | 80-120 | - | 20 |
| Arsenic, Total  | 0.0013 | 0.12  | 0.1293 | 107 | - | - | 80-120 | - | 20 |
| Cadmium, Total  | ND     | 0.051 | 0.0581 | 114 | - | - | 80-120 | - | 20 |
| Chromium, Total | ND     | 0.2   | 0.2040 | 102 | - | - | 80-120 | - | 20 |
| Copper, Total   | ND     | 0.25  | 0.2627 | 105 | - | - | 80-120 | - | 20 |
| Lead, Total     | ND     | 0.51  | 0.5397 | 106 | - | - | 80-120 | - | 20 |
| Nickel, Total   | ND     | 0.5   | 0.5216 | 104 | - | - | 80-120 | - | 20 |
| Selenium, Total | ND     | 0.12  | 0.135  | 112 | - | - | 80-120 | - | 20 |
| Silver, Total   | ND     | 0.05  | 0.0505 | 101 | - | - | 80-120 | - | 20 |
| Zinc, Total     | 0.0107 | 0.5   | 0.5638 | 111 | - | - | 80-120 | - | 20 |

Total Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524535-4 QC Sample: L1204618-02 Client ID: SH-327

|             |    |   |    |   |   |   |        |   |    |
|-------------|----|---|----|---|---|---|--------|---|----|
| Iron, Total | 62 | 1 | 60 | 0 | - | - | 75-125 | - | 20 |
|-------------|----|---|----|---|---|---|--------|---|----|

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter                                            | Native Sample |                         | Duplicate Sample       |                       | Units | RPD | Qual | RPD Limits |
|------------------------------------------------------|---------------|-------------------------|------------------------|-----------------------|-------|-----|------|------------|
| Total Metals - Westborough Lab Associated sample(s): | 02            | QC Batch ID: WG524337-3 | QC Sample: L1204618-02 | Client ID: SH-327     |       |     |      |            |
| Mercury, Total                                       | 0.0002        | ND                      | mg/l                   | NC                    |       |     |      | 20         |
| Total Metals - Westborough Lab Associated sample(s): | 02            | QC Batch ID: WG524515-3 | QC Sample: L1204625-01 | Client ID: DUP Sample |       |     |      |            |
| Lead, Total                                          | ND            | ND                      | mg/l                   | NC                    |       |     |      | 20         |
| Total Metals - Westborough Lab Associated sample(s): | 02            | QC Batch ID: WG524535-3 | QC Sample: L1204618-02 | Client ID: SH-327     |       |     |      |            |
| Iron, Total                                          | 62            | 62                      | mg/l                   | 0                     |       |     |      | 20         |

# **INORGANICS & MISCELLANEOUS**

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

## SAMPLE RESULTS

Lab ID: L1204618-02  
 Client ID: SH-327  
 Sample Location: SOMERVILLE, MA  
 Matrix: Water

Date Collected: 03/19/12 09:00  
 Date Received: 03/19/12  
 Field Prep: Not Specified

| Parameter                                      | Result | Qualifier | Units | RL    | MDL | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|------------------------------------------------|--------|-----------|-------|-------|-----|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab            |        |           |       |       |     |                 |                |                |                   |         |
| Solids, Total Suspended                        | 1200   |           | mg/l  | 50    | NA  | 10              | -              | 03/21/12 07:40 | 30,2540D          | DW      |
| Cyanide, Total                                 | ND     |           | mg/l  | 0.005 | --  | 1               | 03/22/12 18:00 | 03/23/12 13:42 | 30,4500CN-CE      | JO      |
| Chlorine, Total Residual                       | ND     |           | mg/l  | 0.02  | --  | 1               | -              | 03/20/12 01:05 | 30,4500CL-D       | DE      |
| TPH                                            | ND     |           | mg/l  | 4.00  | --  | 1               | 03/21/12 17:00 | 03/23/12 14:00 | 74,1664A          | JO      |
| Phenolics, Total                               | ND     |           | mg/l  | 0.15  | --  | 5               | 03/21/12 17:00 | 03/21/12 22:54 | 4,420.1           | TP      |
| Chromium, Hexavalent                           | ND     |           | mg/l  | 0.010 | --  | 1               | 03/20/12 02:35 | 03/20/12 02:53 | 30,3500CR-D       | JT      |
| Anions by Ion Chromatography - Westborough Lab |        |           |       |       |     |                 |                |                |                   |         |
| Chloride                                       | 89     |           | mg/l  | 5.0   | --  | 10              | -              | 03/21/12 02:36 | 44,300.0          | AU      |



Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

### 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): 02 Batch: WG523939-1            |                  |       |       |     |                 |                |                |                   |         |
| Chlorine, Total Residual                                                           | ND               | mg/l  | 0.02  | --  | 1               | -              | 03/20/12 01:05 | 30,4500CL-D       | DE      |
| General Chemistry - Westborough Lab for sample(s): 02 Batch: WG524185-1            |                  |       |       |     |                 |                |                |                   |         |
| Chromium, Hexavalent                                                               | ND               | mg/l  | 0.010 | --  | 1               | 03/20/12 02:35 | 03/20/12 02:47 | 30,3500CR-D       | JT      |
| General Chemistry - Westborough Lab for sample(s): 02 Batch: WG524216-1            |                  |       |       |     |                 |                |                |                   |         |
| Solids, Total Suspended                                                            | ND               | mg/l  | 5.0   | NA  | 1               | -              | 03/21/12 07:40 | 30,2540D          | DW      |
| General Chemistry - Westborough Lab for sample(s): 02 Batch: WG524376-2            |                  |       |       |     |                 |                |                |                   |         |
| TPH                                                                                | ND               | mg/l  | 4.00  | --  | 1               | 03/21/12 17:00 | 03/23/12 14:00 | 74,1664A          | JO      |
| General Chemistry - Westborough Lab for sample(s): 02 Batch: WG524405-1            |                  |       |       |     |                 |                |                |                   |         |
| Phenolics, Total                                                                   | ND               | mg/l  | 0.03  | --  | 1               | 03/21/12 17:00 | 03/21/12 22:52 | 4,420.1           | TP      |
| General Chemistry - Westborough Lab for sample(s): 02 Batch: WG524650-2            |                  |       |       |     |                 |                |                |                   |         |
| Cyanide, Total                                                                     | ND               | mg/l  | 0.005 | --  | 1               | 03/22/12 18:00 | 03/23/12 13:21 | 30,4500CN-CE      | JO      |
| Anions by Ion Chromatography - Westborough Lab for sample(s): 02 Batch: WG524698-1 |                  |       |       |     |                 |                |                |                   |         |
| Chloride                                                                           | ND               | mg/l  | 0.50  | --  | 1               | -              | 03/20/12 19:59 | 44,300.0          | AU      |



# Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter                                                                                 | LCS |  | LCSD |  | %Recovery Limits |  | RPD | Qual | RPD Limits |
|-------------------------------------------------------------------------------------------|-----|--|------|--|------------------|--|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG523939-2            |     |  |      |  |                  |  |     |      |            |
| Chlorine, Total Residual                                                                  | 101 |  | -    |  | 90-110           |  | -   |      |            |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG524185-2            |     |  |      |  |                  |  |     |      |            |
| Chromium, Hexavalent                                                                      | 102 |  | -    |  | 85-115           |  | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG524376-1            |     |  |      |  |                  |  |     |      |            |
| TPH                                                                                       | 85  |  | -    |  | 64-132           |  | -   |      | 34         |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG524405-2            |     |  |      |  |                  |  |     |      |            |
| Phenolics, Total                                                                          | 96  |  | -    |  | 82-111           |  | -   |      | 12         |
| General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG524650-1            |     |  |      |  |                  |  |     |      |            |
| Cyanide, Total                                                                            | 104 |  | -    |  | 90-110           |  | -   |      |            |
| Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 Batch: WG524698-2 |     |  |      |  |                  |  |     |      |            |
| Chloride                                                                                  | 90  |  | -    |  | 90-110           |  | -   |      |            |

### Matrix Spike Analysis Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Qual | MSD Found | MSD %Recovery | Recovery Limits | RPD Qual | RPD Limits |
|-----------|---------------|----------|----------|--------------|----------|-----------|---------------|-----------------|----------|------------|
|-----------|---------------|----------|----------|--------------|----------|-----------|---------------|-----------------|----------|------------|

General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524185-4 QC Sample: L1204618-02 Client ID: SH-327

|                      |    |     |       |    |   |   |   |        |   |    |
|----------------------|----|-----|-------|----|---|---|---|--------|---|----|
| Chromium, Hexavalent | ND | 0.1 | 0.095 | 95 | - | - | - | 85-115 | - | 20 |
|----------------------|----|-----|-------|----|---|---|---|--------|---|----|

General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524376-3 QC Sample: L1204677-01 Client ID: MS Sample

|     |    |      |      |    |   |   |   |        |   |    |
|-----|----|------|------|----|---|---|---|--------|---|----|
| TPH | ND | 20.2 | 15.7 | 77 | - | - | - | 64-132 | - | 34 |
|-----|----|------|------|----|---|---|---|--------|---|----|

General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524405-3 QC Sample: L1204706-02 Client ID: MS Sample

|                  |    |     |      |    |   |   |   |        |   |    |
|------------------|----|-----|------|----|---|---|---|--------|---|----|
| Phenolics, Total | ND | 0.8 | 0.76 | 95 | - | - | - | 77-124 | - | 12 |
|------------------|----|-----|------|----|---|---|---|--------|---|----|

General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524650-3 QC Sample: L1204511-01 Client ID: MS Sample

|                |    |     |       |    |   |   |   |        |   |    |
|----------------|----|-----|-------|----|---|---|---|--------|---|----|
| Cyanide, Total | ND | 0.2 | 0.182 | 91 | - | - | - | 90-110 | - | 30 |
|----------------|----|-----|-------|----|---|---|---|--------|---|----|

Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 QC Batch ID: WG524698-3 QC Sample: L1204706-01 Client ID: MS Sample

|          |     |     |     |     |     |     |        |   |    |
|----------|-----|-----|-----|-----|-----|-----|--------|---|----|
| Chloride | 120 | 100 | 230 | 108 | 220 | 104 | 40-151 | 4 | 18 |
|----------|-----|-----|-----|-----|-----|-----|--------|---|----|

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

| Parameter                                      | Native Sample            | Duplicate Sample        | Units                  | RPD                   | Qual | RPD Limits |
|------------------------------------------------|--------------------------|-------------------------|------------------------|-----------------------|------|------------|
| General Chemistry - Westborough Lab            | Associated sample(s): 02 | QC Batch ID: WG524185-3 | QC Sample: L1204618-02 | Client ID: SH-327     |      |            |
| Chromium, Hexavalent                           | ND                       | ND                      | mg/l                   | NC                    |      | 20         |
| General Chemistry - Westborough Lab            | Associated sample(s): 02 | QC Batch ID: WG524216-2 | QC Sample: L1204451-01 | Client ID: DUP Sample |      |            |
| Solids, Total Suspended                        | 190                      | 200                     | mg/l                   | 5                     |      | 20         |
| General Chemistry - Westborough Lab            | Associated sample(s): 02 | QC Batch ID: WG524376-4 | QC Sample: L1204618-02 | Client ID: SH-327     |      |            |
| TPH                                            | ND                       | ND                      | mg/l                   | NC                    |      | 34         |
| General Chemistry - Westborough Lab            | Associated sample(s): 02 | QC Batch ID: WG524405-4 | QC Sample: L1204706-02 | Client ID: DUP Sample |      |            |
| Phenolics, Total                               | ND                       | 0.05                    | mg/l                   | NC                    |      | 12         |
| General Chemistry - Westborough Lab            | Associated sample(s): 02 | QC Batch ID: WG524650-4 | QC Sample: L1204793-02 | Client ID: DUP Sample |      |            |
| Cyanide, Total                                 | ND                       | ND                      | mg/l                   | NC                    |      | 30         |
| Anions by Ion Chromatography - Westborough Lab | Associated sample(s): 02 | QC Batch ID: WG524698-5 | QC Sample: L1204706-01 | Client ID: DUP Sample |      |            |
| Chloride                                       | 120                      | 120                     | mg/l                   | 0                     |      | 18         |

Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

## 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(*)                                                                                                                                                     |
|--------------|------------------------------|--------|-----|------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L1204618-01A | Vial HCl preserved           | A      | N/A | 3          | Y    | Absent | HOLD(14)                                                                                                                                                        |
| L1204618-01B | Vial Na2S2O3 preserved       | A      | N/A | 3          | Y    | Absent | HOLD(14)                                                                                                                                                        |
| L1204618-02A | Vial HCl preserved           | A      | N/A | 3          | Y    | Absent | 8260-SIM(14),8260(14)                                                                                                                                           |
| L1204618-02B | Vial HCl preserved           | A      | N/A | 3          | Y    | Absent | 8260-SIM(14),8260(14)                                                                                                                                           |
| L1204618-02C | Vial HCl preserved           | A      | N/A | 3          | Y    | Absent | 8260-SIM(14),8260(14)                                                                                                                                           |
| L1204618-02D | Vial Na2S2O3 preserved       | A      | N/A | 3          | Y    | Absent | 504(14)                                                                                                                                                         |
| L1204618-02E | Vial Na2S2O3 preserved       | A      | N/A | 3          | Y    | Absent | 504(14)                                                                                                                                                         |
| L1204618-02F | Vial Na2S2O3 preserved       | A      | N/A | 3          | Y    | Absent | 504(14)                                                                                                                                                         |
| L1204618-02G | Amber 1000ml unpreserved     | A      | 7   | 3          | Y    | Absent | 8270TCL(7),8270TCL-SIM(7)                                                                                                                                       |
| L1204618-02H | Amber 1000ml unpreserved     | A      | 7   | 3          | Y    | Absent | 8270TCL(7),8270TCL-SIM(7)                                                                                                                                       |
| L1204618-02I | Amber 1000ml unpreserved     | A      | 7   | 3          | Y    | Absent | 8270TCL(7),8270TCL-SIM(7)                                                                                                                                       |
| L1204618-02J | Amber 1000ml unpreserved     | A      | 7   | 3          | Y    | Absent | 8270TCL(7),8270TCL-SIM(7)                                                                                                                                       |
| L1204618-02K | Amber 1000ml Na2S2O3         | A      | 7   | 3          | Y    | Absent | PCB-608(7)                                                                                                                                                      |
| L1204618-02L | Amber 1000ml Na2S2O3         | A      | 7   | 3          | Y    | Absent | PCB-608(7)                                                                                                                                                      |
| L1204618-02M | Amber 1000ml HCl preserved   | A      | N/A | 3          | Y    | Absent | TPH-1664(28)                                                                                                                                                    |
| L1204618-02N | Amber 1000ml HCl preserved   | A      | N/A | 3          | Y    | Absent | TPH-1664(28)                                                                                                                                                    |
| L1204618-02O | Amber 1000ml H2SO4 preserved | A      | <2  | 3          | Y    | Absent | TPHENOL-420(28)                                                                                                                                                 |
| L1204618-02P | Plastic 1000ml unpreserved   | A      | 7   | 3          | Y    | Absent | TSS-2540(7)                                                                                                                                                     |
| L1204618-02Q | Plastic 500ml unpreserved    | A      | 7   | 3          | Y    | Absent | HEXCR-3500(1),TRC-4500(1)                                                                                                                                       |
| L1204618-02R | Plastic 500ml unpreserved    | A      | 7   | 3          | Y    | Absent | CL-300(28)                                                                                                                                                      |
| L1204618-02S | Plastic 250ml NaOH preserved | A      | >12 | 3          | Y    | Absent | TCN-4500(14)                                                                                                                                                    |
| L1204618-02T | Plastic 250ml HNO3 preserved | A      | <2  | 3          | Y    | Absent | SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180) |

\*Values in parentheses indicate holding time in days



Project Name: FOLEY

Lab Number: L1204618

Project Number: 3175

Report Date: 03/26/12

**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:** FOLEY**Lab Number:** L1204618**Project Number:** 3175**Report Date:** 03/26/12**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.

**Project Name:** FOLEY  
**Project Number:** 3175

**Lab Number:** L1204618  
**Report Date:** 03/26/12

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 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.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's 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, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Certificate/Approval Program Summary**

Last revised January 30, 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, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, 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), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). *Microbiology Parameters:* Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

*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, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. *Microbiology Parameters:* Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

*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, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

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

*Drinking Water (Inorganic Parameters:* SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-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, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. *Organic Parameters:* 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (Inorganic Parameters:* 9010B, 9012A, 9014A, 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, SM4500CI-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.)

*Non-Potable Water (Inorganic Parameters:* (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 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, 245.2, 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, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, 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. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**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, 245.2, 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, SM4500F-BC, EPA 200.7, 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, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 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, 4500H-B, 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, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.**

**Pennsylvania Department of Environmental Protection** Certificate/Lab ID: 68-03671. **NELAP Accredited.**  
*Drinking Water* (Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH<sub>3</sub>-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

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, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>B, 4500P-E, 4500 S<sub>2</sub><sup>-</sup>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.**

*Non-Potable Water* (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

**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, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO<sub>3</sub>-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 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, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.

# CHAIN OF CUSTODY

PAGE 1 OF 1



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

NANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3286

## Client Information

Client: Sambasun Health & Assoc

Address: 1 Technology Park Dr

Westford, MA

Phone: 978-577-1003

Fax:

Email:

Kymal.Veget@sambasunhealth.com

☐ These samples have been previously analyzed by Alpha

## Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.  
(Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

## Project Information

Project Name: Foley

Project Location: Somerville, MA

Project #: 3175

Project Manager: P. Pinto

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre approved)

Date Due: 3/26/12 Time:

Date Rec'd in Lab:

3/19/12

ALPHA Job #: 412041018

## Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

## Regulatory Requirements/Report Limits

State/Fed Program MA/MCP Criteria

## MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

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

## ANALYSIS

504  
8260  
TSS  
TRC  
TPH-1664  
TCN  
PCBs-608  
3270/3270SIM  
CI  
HexCr  
Phenol-total  
Total RGP metals

## SAMPLE HANDLING

Filtration  
☐ Done  
☐ Not needed  
☐ Lab to do  
☐ Preservation  
☐ Lab to do  
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

| ALPHA Lab ID<br>(Lab Use Only) | Sample ID      | Collection |      | Sample Matrix | Sampler's Initials |    |    |     |    |    |    |    |    |    |    |    | Sample Specific Comments |      |   |
|--------------------------------|----------------|------------|------|---------------|--------------------|----|----|-----|----|----|----|----|----|----|----|----|--------------------------|------|---|
|                                |                | Date       | Time |               |                    | 50 | 82 | TSS | TR | TP | TC | PC | B2 | CI | He | Ph |                          | Tot  |   |
| 04618-1                        | Tripblank-504  | Bg         | Al   | phc           |                    | ⊙  |    |     |    |    |    |    |    |    |    |    |                          | Hold | 1 |
| 1                              | Tripblank-8260 | Bg         | Al   | phc           |                    | ⊙  |    |     |    |    |    |    |    |    |    |    |                          | Hold | 1 |
| 2                              | 5H-327         | 3/19/12    | 900  | GW            | KBW                | X  | X  | X   | X  | X  | X  | X  | X  | X  | X  | X  | X                        |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    |    |    |                          |      |   |
|                                |                |            |      |               |                    |    |    |     |    |    |    |    |    |    | </ |    |                          |      |   |

## PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP or CT RCP?

Relinquished By:

Date/Time

Received By:

Date/Time

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

## **APPENDIX C**

### **Mystic River Calculations**

## APPENDIX C: Mystic River Calculations

Notice of Intent for the NPDES Remediation General Permit  
Construction Dewatering at Assembly Row, Somerville, Massachusetts

### 7Q<sub>10</sub> Calculations

The 7Q<sub>10</sub> value is the average of one continuous gauging station and eight low-flow measurement stations in the Aberjona and Mystic River sub-basins, as documented by "Hydrology and Water Resources of the Coastal Drainage Basin of Northeastern Massachusetts, From Castle Neck, Ipswich, to Mystic River, Boston," by Delaney and Gay, Hydrologic Investigations Atlas HA-589, dated 1980. The watershed area is 62.70 square miles, according to the USGS (the station ID at Amelia Earhart Dam is 01103050).

7Q<sub>10</sub> flows on the Mystic River and its tributaries (in cubic feet per second per square mile [cfs/mi<sup>2</sup>]):

0.22, 0.21, 0.18, <0.10, 0.57, 0, 0.53, 0.40, and 0.43

Average = **0.293 cfs/mi<sup>2</sup>** (*assuming a value of 0.10 for the <0.10 station*)

Area of watershed (from USGS):

**62.70 mi<sup>2</sup>**

7Q<sub>10</sub> flow = 0.293 cfs/mi<sup>2</sup> \* 62.70 mi<sup>2</sup> = **18.37 cfs**

### Note:

The discharge is into the tidal reach of the Mystic River estuary, where the twice daily tidal flux of seawater is much larger than the 7Q<sub>10</sub> from the upstream freshwater river.

## **APPENDIX D**

### **Federal Correspondence**



# 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

APR 12 2012

Kevin P. Stetson, P.E.  
Sanborn, Head, & Associates, Inc.  
1 Technology Park Drive  
Westford, MA 01886

Re: National Pollutant Discharge Elimination Systems (NPDES) Coverage under the  
Remediation General Permit (RGP) in Somerville, MA

Dear Mr. Stetson,

Your letter, dated April 10, 2012, requested information about the presence of federally listed species in the Mystic River, Somerville, MA under the jurisdiction of NOAA's National Marine Fisheries Service (NMFS). You are seeking coverage under the Environmental Protection Agency's (EPA) Remediation General Permit (RGP) for a construction project that will discharge into the Mystic River. We offer the following comments.

*Listed Species in the Action Area*

There are several species of federally-listed whales and sea turtles that occur seasonally in waters off the Massachusetts coast, and populations of the endangered shortnose sturgeon are known to occur in the Connecticut and Merrimack Rivers. Additionally, all five Distinct Population Segments (DPS) of Atlantic sturgeon may occur in the mouths of large river systems in Massachusetts and throughout coastal habitats.

No whales, sea turtles, or shortnose sturgeon are known to occur in the Mystic River; however Atlantic sturgeon sub-adults and adults may pass through the river during foraging or migration activities. The Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) is a subspecies of sturgeon distributed along the eastern coast of North America from Hamilton Inlet, Labrador, Canada to Cape Canaveral, Florida, USA (Scott and Scott, 1988; ASSRT, 2007; T. Savoy, CT DEP, pers. comm.). We have delineated U.S. populations of Atlantic sturgeon into five DPSs<sup>1</sup> (77 FR 5880 and 77 FR 5914). These are: the Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs. The Gulf of Maine is listed as threatened and the other four DPSs are listed as endangered. Atlantic sturgeon often range widely in the marine environment and move frequently between large river systems to forage. Therefore, sturgeon originating from any of the 5 DPSs can be affected by threats in the marine, estuarine and riverine environments that occur far from natal spawning rivers.

The RGP requires effluent limits (e.g. concentrations for Total Suspended Solids, iron, other metals, volatile compounds) to be consistent with the aquatic life water quality criteria

<sup>1</sup> To be considered for listing under the ESA, a group of organisms must constitute a "species." A "species" is defined in section 3 of the ESA to include "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."



recommended by the EPA. Construction discharges may adversely affect listed species if they contain toxin levels that exceed the appropriate water quality standards designed to be protective of aquatic life (as defined by EPA). As you may know, any discretionary federal action, such as the approval or funding of a project by a Federal agency, that may affect a listed species must undergo consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended. If the proposed project has the potential to affect listed species and it is being approved, permitted or funded by a Federal agency, the lead Federal agency, or their designated non-Federal representative, is responsible for determining whether the proposed action is likely to affect this species. The Federal agency would submit their determination along with justification for their determination and a request for concurrence, to the attention of the Section 7 Coordinator, NMFS Northeast Regional Office, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA 01930. After reviewing this information, NMFS would then be able to conduct a consultation under section 7 of the ESA.

Should you have any questions regarding these comments, please contact Chris Vaccaro at 978-281-9167 or by email at [Christine.Vaccaro@noaa.gov](mailto:Christine.Vaccaro@noaa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Kimberly B. Randall', with a stylized flourish at the end.

Kimberly Damon-Randall  
Acting Assistant Regional Administrator for  
Protected Resources

## **APPENDIX E**

### **National Register of Historic Places Somerville, Massachusetts**

**Appendix E**  
**National Register of Historic Places**  
**Research Documentation**  
Assembly Row, Somerville, Massachusetts

| <b>Site Name</b>                           | <b>Address</b>               | <b>Date Listed</b> |
|--------------------------------------------|------------------------------|--------------------|
| Adams, Charles--Woodbury Locke House       | 178 Central St.              | 9/18/1989          |
| Adams--Magoun House                        | 438 Broadway                 | 9/18/1989          |
| Bacon, Clifton, House                      | 27 Chester St.               | 9/18/1989          |
| Barnes, Walter S. and Melissa E., House    | 140 Highland Ave.            | 3/8/1990           |
| Bow Street Historic District               | Bow St.                      | 3/26/1976          |
| Brackett, S. E., House                     | 63 Columbus Ave.             | 9/18/1989          |
| Broadway Winter Hill Congregational Church | 404 Broadway                 | 9/18/1989          |
| Brooks, James H., House                    | 61 Columbus Ave.             | 9/18/1989          |
| Carr, Martin W., School                    | 25 Atherton St.              | 7/5/1984           |
| Central Library                            | 79 Highland Ave.             | 9/18/1989          |
| Cliff, Z. E., House                        | 29 Powderhouse Terr.         | 9/18/1989          |
| Cook, Thomas, House                        | 21 College Hill Rd.          | 9/18/1989          |
| Cooper--Davenport Tavern Wing              | 81 Eustis St.                | 9/18/1989          |
| Crowell, C. C., House                      | 85 Benton Rd.                | 9/18/1989          |
| Downer Rowhouses (Adams Street)            | 55 Adams St.                 | 9/18/1989          |
| Downer Rowhouses (Central Street)          | 192--200 Central St.         | 9/18/1989          |
| First Unitarian Church                     | 130 Highland Ave.            | 9/18/1989          |
| First Universalist Church                  | 125 Highland St.             | 9/18/1989          |
| Foster, Alexander, House                   | 45 Laurel St.                | 9/18/1989          |
| Gaut, Samuel, House                        | 137 Highland Ave.            | 9/18/1989          |
| Grandview, The                             | 82 Munroe St.                | 9/18/1989          |
| Highland, The                              | 66 Highland St.              | 9/18/1989          |
| Hollander Blocks                           | Walnut St. and Pleasant Ave. | 9/18/1989          |
| Hopkins, Elisha, House                     | 237 School St.               | 9/18/1989          |
| House at 10 Arlington Street               | 10 Arlington St.             | 9/18/1989          |
| House at 14 Chestnut Street                | 14 Chestnut St.              | 9/18/1989          |
| House at 16--18 Preston Road               | 16--18 Preston Rd.           | 9/18/1989          |
| House at 197 Morrison Avenue               | 197 Morrison Ave.            | 9/18/1989          |
| House at 21 Dartmouth Street               | 21 Dartmouth St.             | 9/18/1989          |
| House at 25 Clyde Street                   | 25 Clyde St.                 | 9/18/1989          |
| House at 29 Mt. Vernon Street              | 29 Mt. Vernon St.            | 9/18/1989          |
| House at 343 Highland Avenue               | 343 Highland Ave.            | 9/18/1989          |
| House at 35 Temple Street                  | 35 Temple St.                | 9/18/1989          |
| House at 42 Vinal Avenue                   | 42 Vinal Ave.                | 9/18/1989          |
| House at 49 Vinal Avenue                   | 49 Vinal Ave.                | 9/18/1989          |
| House at 5 Prospect Hill                   | 5 Prospect Hill              | 9/18/1989          |
| House at 6 Kent Court                      | 6 Kent Ct.                   | 9/18/1989          |
| House at 72R Dane Street                   | 72R Dane St.                 | 9/18/1989          |
| House at 81 Pearl Street                   | 81 Pearl St.                 | 9/18/1989          |
| Houses at 28--36 Beacon Street             | 28--36 Beacon St.            | 9/18/1989          |
| Ireland, Samuel, House                     | 117 Washington               | 9/18/1989          |
| James, Joseph K., House                    | 83 Belmont St.               | 2/11/1998          |
| Keyes, Amos, House                         | 12 Adams St.                 | 9/18/1989          |
| Knight, R. A.--Eugene Lacount House        | 34 Day St.                   | 9/18/1989          |
| Langmaid Building                          | 48--52 Highland Ave.         | 9/18/1989          |

**Appendix E**  
**National Register of Historic Places**  
**Research Documentation**  
Assembly Row, Somerville, Massachusetts

| Site Name                           | Address                                                                  | Date Listed |
|-------------------------------------|--------------------------------------------------------------------------|-------------|
| Langmaid Terrace                    | 359--365 Broadway                                                        | 9/18/1989   |
| Lockhardt, Charles H., House        | 88 College Ave.                                                          | 9/18/1989   |
| Loring, George, House               | 76 Highland Ave.                                                         | 9/18/1989   |
| Lovejoy, A. L., House               | 30 Warren Ave.                                                           | 9/18/1989   |
| Mt. Vernon Street Historic District | 8--24 Mt. Vernon St.                                                     | 9/18/1989   |
| Munroe, Robert, House               | 37 Walnut St.                                                            | 9/18/1989   |
| Mystic Pumping Station              | Alewife Brook Pkwy.                                                      | 9/18/1989   |
| Mystic Water Works                  | Alewife Brook Pkwy. and Capen St.                                        | 9/18/1989   |
| Nichols, John F., House             | 17 Summit St.                                                            | 9/18/1989   |
| Niles, Louville V., House           | 97 Munroe St.                                                            | 9/18/1989   |
| Niles, Louville, House              | 45 Walnut St.                                                            | 9/18/1989   |
| Old Cemetery                        | Somerville Ave. and School St.                                           | 9/18/1989   |
| Otis--Wyman House                   | 67 Thurston St.                                                          | 9/18/1989   |
| Parker--Burnett House               | 48 Vinal Ave.                                                            | 9/18/1989   |
| Powder House Park                   | Powder House Circle                                                      | 4/21/1975   |
| Prescott, Gustavus G., House        | 65--67 Perkins St.                                                       | 9/18/1989   |
| Rosebud, The                        | 381 Summer St.                                                           | 9/22/1990   |
| Russell, Philemon, House            | 25 Russell St.                                                           | 9/18/1989   |
| Russell, Susan, House               | 58 Sycamore St.                                                          | 9/18/1989   |
| Schuebeler, Charles, House          | 384 Washington St.                                                       | 9/18/1989   |
| Snow, Lemuel, Jr., House            | 81 Benton Rd.                                                            | 9/18/1989   |
| Somerville High School              | 93 Highland St.                                                          | 9/18/1989   |
| Somerville Journal Building         | 8--10 Walnut St.                                                         | 9/18/1989   |
| Somerville Theatre                  | 55 Davis Sq.                                                             | 1/26/1990   |
| Spring Hill Historic District       | Roughly bounded by Summer, Central, Atherton, and Spring                 | 9/18/1989   |
| Tufts, Peter and Oliver, House      | 78 Sycamore St.                                                          | 9/18/1989   |
| US Post Office--Somerville Main     | 237 Washington St.                                                       | 5/30/1986   |
| Warren, H., House                   | 205 School St.                                                           | 9/18/1989   |
| West Somerville Branch Library      | 40 College Ave.                                                          | 9/18/1989   |
| Westwood Road Historic District     | Roughly bounded by Summer St., Benton Rd., Westwood Rd., and Central St. | 9/18/1989   |
| Williams, Charles, House            | 108 Cross St.                                                            | 9/18/1989   |
| Williams, Charles, Jr., House       | 1 Arlington St.                                                          | 9/18/1989   |
| Williams, F. G., House              | 37 Albion St.                                                            | 9/18/1989   |
| Worthen, Daniel, House              | 8 Mt. Pleasant St.                                                       | 9/18/1989   |
| Wright House                        | 54 Vinal Ave.                                                            | 9/18/1989   |
| Wyatt, George, House                | 33 Beacon St.                                                            | 9/18/1989   |

Notes:

Sanborn, Head & Associates, Inc. (Sanborn Head) conducted a review of the National Register of Historic Places within Somerville, Massachusetts. The search returned 81 results, none of which are located at or abutting the site.

## **APPENDIX F**

### **Best Management Practices Plan**

## **APPENDIX F: Best Management Practices Plan**

Notice of Intent for the NPDES Remediation General Permit  
Temporary Construction Dewatering at Block 3, Assembly Row  
Somerville, 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 dewatering during utility construction and remedial activities at Block 3 of the Assembly Row project, located in the Assembly Square area of Somerville, Massachusetts. The dewatering discharge will be conveyed through a new 72-inch storm drain outfall and discharged to the Mystic River downstream from the Amelia Earhart Dam.

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

### **Site Security**

During construction activities, the dewatering system will be secured using standard construction practices. The fractionalization tank will be located in a fenced area 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 is minimized.

### **Management of Generated Wastes**

The construction excavations will be conducted within the limits of Massachusetts Contingency Plan (MCP) release sites. 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 sludge that accumulates in the fractionalization tank, used bag filters, spent activated carbon, free phase petroleum that is separated in the oil water separator, and miscellaneous wastes associated with water quality sampling activities. The sediment sludge will be tested and disposed of at licensed facility that is permitted to accept material with the documented physical and chemical characteristics of the sludge. The used bag filters and the miscellaneous sampling wastes will be appropriately disposed of as solid or contaminated wastes, based on their characteristics. The spent activated carbon will be processed and recycled by the company providing the fresh carbon. Free phase product that is collected as a liquid will be transported to a licensed waste oil processing facility for characterization and disposal.

### **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 two activated carbon units in series with a monitoring point between the tanks. Systematic sampling will take place at the intermediate sampling point. If the data at that point indicates that "breakthrough" has occurred, the downstream carbon tank will be moved to the upstream position and the carbon in the upstream unit will be changed out and then placed in service at the downstream side. The bag filters will be replaced whenever the pressure drop across the filters exceeds the system's design criteria. 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 and minimize the volume of free product 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**

The overburden soil and fill material that is located above the contaminated layer will be used to construct a berm around the perimeter of the excavation area to prevent rainfall runoff from migrating into the excavation. The stockpiles of the contaminated soils will be placed on plastic sheets and then covered with sheeting and bermed with hay bales until the off-site transport occurs.

### **Erosion, Scouring and Sediment Control**

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