ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC
67 South Bedford Street, Suite 101W
Burlington, Massachusetts 01803 TEL 781-270-6600 FAX 781-270-9066

MA6-910454

April 8, 2010

Ms. Shelly Puleo
US Environmental Protection Agency
Industrial NPDS Permits (CIP)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Notice of Intent for the Remediation General Permit
House of Clean – 9 Chestnut Street
Andover, Massachusetts

Dear Ms. Puleo:

On behalf of 77 Main Street Properties, LLC, Roux Associates Inc. respectfully submits this National Pollution Discharge Elimination System (NPDES) Remediation General Permit (RGP) Notice of Intent (NOI) for a proposed groundwater treatment facility located at 9 Chestnut Street in Andover, Massachusetts. The facility and its discharge are associated with the Massachusetts Contingency Plan (MCP) Site given release tracking number (RTN) 3-25763. The facility and its discharge are part of a remedial plan for downgradient properties associated with the above RTN. Impacted groundwater will be withdrawn from on-site extraction wells and treated within the facility, before being discharged to a catchbasin on a neighboring property (49 School Street). The following sections provide additional detail and supporting information to the Suggested Form for NOI for the RGP.

NOI Form Section 1: General Site Information

Subsection a)
The name of the facility will be House of Clean-9 Chestnut Street. The facility will be located at 9 Chestnut Street, in Andover, Massachusetts.

Subsection b)
The owner of the facility is 77 Main Street Properties, LLC, located at 77 Main Street in Andover, Massachusetts. The owner contact is Leslie Aznoian. It should be noted that the facility will be located at 9 Chestnut Street, Andover, Massachusetts. The 9 Chestnut Street property is owned by Fred Callanen, but Mr. Callanen will not be responsible for any portion of the facility's operation or discharge.

Subsection c)
Roux Associates, Inc. will be the facility operator. This permit is being filed as a contractor sole permittee, where Roux Associates, Inc. will design and oversee all aspects of the permit. The operator contact is Glen Gordon, P.E., LSP.

Subsection e)
The Site is subject to regulation under the MCP as RTN 3-25763. The Northeast Regional Office (NERO) of the Massachusetts Department of Environmental Protection (MassDEP) located at 205B Lowell Street, Wilmington, MA 0188. The NERO can be reached at 978-694-3200.

NOI Form Section 2: Discharge Information

Subsection a)
The discharge is associated with remedial activities associated with an MCP Site. The contaminant of concern is tetrachloroethylene (PCE) and its daughter products trichloroethylene (TCE), and cis-1,2-dichloroethylene. The selected remedy for this property includes groundwater extraction and in-situ chemical oxidation (ISCO). Groundwater will be continuously extracted from the upgradient side of the property while ISCO agents (sodium permanganate) will be injected semi-annually on the downgradient side of the property. As a result of ISCO activities, both past and proposed, water from the extraction wells has the potential to contain residual sodium permanganate. Extracted groundwater will be treated to remove both residual ISCO agents and contaminants of concern before being discharge to a nearby catchbasin.

Subsection b)
1. There will be a total of 1 discharge point, which is a catch basin located on an adjacent property.

2. Based on hydrologic calculations, the influent pumping rate to the system will most likely be 0.6 gallons per minute (0.00134 CFS). However, the treatment system will most likely operate on a batch mode, so a maximum of 10 gallons per minute (0.0223 CFS) could be expected. Those maximum and average flow values are design values.

3. The catch basin located on the 49 School Street property is located at Longitude: -72° 08' 27", Latitude: 42° 39' 14".

5. The discharge will be in intermittent batch modes throughout the year. The system is not currently discharging.

NOI Form Section 3: Contaminant Information

Subsection a)
Based on samples collected from on-site monitoring wells, the discharge falls within the Type 2B Subcategory - non-petroleum site with VOC's and other contaminants (trace metals).

Subsection c)
Step 1
The following metals were detected above laboratory detection limits: arsenic, copper, lead, and silver.

Step 2
Based on information obtained from a USGS report entitled "Water-Data Report 2008, 01100600 Shawsheen River Near Wilmington, MA" (http://wdr.water.usgs.gov/wy2008/pdfs/01100600.2008.pdf), the annual seven day minimum flow is 1.0 CFS, it was recorded on September 2, 1995. For the purposes of determining a dilution factor (DF), 1.0 CFS will be used as the 7Q10 for the receiving waters of the facility.

$$DF = \frac{Q_d + Q_s}{Q_d}$$

Where,

Q_d=Maximum flow rate of discharge in cubic feet per second
Q_s=Receiving waters 7Q10.
Q_d=Maximum 10 gallons per minute = 0.0223 cfs
Q_s=1.0 cfs
$DF=(Q_d+Q_s)/Q_d=(0.0223+1.0)/0.0223=45$

The dilution factor for the discharge is 45.

Based on the calculated dilution factor and the values found in Appendix IV of the RGP, none of the metals will exceed their associated discharge limit.

NOI Form Section 4: Treatment System Information

Subsections a) through b)
As a result of ISCO activities, water from the extraction wells has the potential to contain residual sodium permanganate, which has a distinctive purple color and is visibly detectable to a concentration of 1 mg/L. Extracted groundwater will enter the treatment system and be directed into a 100 gallon holding tank. This holding tank will serve as a flow equalization tank and will be equipped with two transfer pumps. The first transfer pump will be connected to injection wells and be used to re-inject water which visibly contains sodium permanganate (i.e.: water which is purple to pink in color). The second transfer pump will be used to transfer water which is either visibly free of permanganate or unable to be re-injected to a second tank. Granular activated carbon is able to effectively remove permanganate at low concentrations (less than 10 mg/L), but should higher concentrations be found, hydrogen peroxide will be added to the second tank to degrade the permanganate to manganese oxides and free oxygen prior to treatment with

granular activated carbon. Additionally, the treatment water will undergo pH neutralization within the second tank, as low pH conditions have historically been observed in Site groundwater. A continuous pH monitor located in the system effluent line will shut down the discharge if pH is not within the allowable range. From the second tank, treatment water passes through two in-series bag filters and then through two granular activated carbon units. After filtration and appropriate sampling, the treated groundwater will be discharged to the local storm water system. A line diagram is attached to this letter.

NOI Form Section 5: Source Information

Subsections a) through c)
Based on site inspections and available GIS layers from the Town of Andover, water from the catch basin located on the adjacent property travels to the Rogers Brook and eventually the Shawsheen River. On November 14, 2009, Roux Associates personnel inspected the catch basin (Long: -71° 8' 52", Lat: 42° 39' 14") and identified piping traveling to an additional catch basin located on the 26 Central Street property. That additional catch basin is connected to another catch basin (Long: -71° 8' 30", Lat: 42° 39' 17") located along Chestnut Street, near 5 Chestnut Street. The pathway of the storm water system was then tracked using GIS information from the Town of Andover.

From the catchbasin near 5 Chestnut Street, the discharge then flows:

- Southwest along Chestnut Street to Central Street
- North by North East along Central Street to connect to the Rogers Brook within a 66" reinforced concrete pipe.
- Northwest parallel to Brook Street
- Southwest crossing under Brook Street and School Street
- West crossing under Lupine Road
- West by South West after emerging from underground into a small stream which travels to the Shawsheen River. (Long: -71° 8' 52", Lat: 42° 39' 14")

Attached to this letter are two sketches showing the discharge pathway.

Based on "Massachusetts Year 2008 Integrated List of Waters, Final Listing of the Condition of Massachusetts's Waters" (http://www.mass.gov/dep/water/resources/08list2.pdf), the Rogers Brook (Segment ID MA83-04_2008) is a listed waterway for Pathogens, Other Habitat Alterations, and Turbidity. The facility's discharge will be within the culverted section of the Rogers Brook, so it should not contribute pathogens, other habitat alterations, or turbidity.

NOI Form Section 6: Results of Consultations with Federal Services

Subsection a)

Based on Appendix II of the RGP, Essex County does have several listed species. On November 11, 2009, Roux Associates contacted the Massachusetts Natural Heritage and Endangered Species Program regarding endangered species in Andover, MA. Roux Associates was directed to an online viewer of priority habitats. The viewer showed an area listed as a MA Priority Habitat of Rare Species located up stream of the potential discharge site by approximately one mile, near the Lowell Junction Pond. Although there are several listed species for Essex County, available information from the Massachusetts Natural Heritage and Endangered Species Program, showed there are no priority or established habitats in the downstream proximity of the proposed facility discharge.

Subsection b)

Based on Google Earth Layers available from the National Registry of Historic Places (http://www.nps.gov/history/nr/research/nris.htm) the Roger's Brook outfall occurs within a registered historic place, the Andover Village Industrial District (82000476). On February 25, 2010, Roux Associates submitted a Project Notification Form to the Massachusetts Historical Commission detailing the discharge as it relates to the Andover Village Industrial District. On March 19, 2010, the Massachusetts Historical Commission determined the discharge will have "no adverse effect" on the historical property. A copy of the Massachusetts Historical Commission determination is attached.

Sincerely,

ROUX ASSOCIATES, INC.

Glen P. Gordon, P.E., LSP
Principal Engineer/Project Manager

Enclosures:

NOI Suggested Form
Massachusetts Historical Commission Determination Letter
Discharge Pathway
Line Drawing

cc: Town of Andover Department of Public Works
Leslie Aznoian, 77 Main Street Properties, LLC

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

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

a) Name of **facility/site**: House of Clean-9 Chestnut (see attached)		**Facility/site** address:		
Location of **facility/site**: Andover, MA longitude: -71° 08' 25" latitude: 42° 39' 17"	Facility SIC code(s): N/A-Residence	Street: 9 Chestnut Street		
b) Name of **facility/site owner:** 77 Main Street Properties, LLC (see attached)		Town: Andover		
Email address of owner:		State: MA	Zip: 01810	County: Essex
Telephone no.of facility/site **owner**: 978-475-9796				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal____ 2. State/Tribal____ 3. Private ✓ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: 77 Main Street				
Town: Andover	State: MA	Zip: 01810	County: Essex	
c) Legal name of **operator**: Roux Associates, Inc. (see attached)	**Operator** telephone no: 781-270-6600			
	Operator fax no.: 781-270-9066		**Operator** email: ggordon@rouxinc.com	
Operator contact name and title: Glen Gordon, Principal Engineer / Project Manager				
Address of **operator** (if different from owner):	Street: 67 South Bedford Street, Suite 101W			
Town: Burlington	State: MA	Zip: 01803	County: Middlesex	

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

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ✓ No ___ If "yes," please list: (see attached) 1. site identification # assigned by the state of NH or MA: RTN 3-25763 2. permit or license # assigned: N/A 3. state agency contact information: name, location, and telephone number: MassDEP NERO, 205B Lowell Street, Wilmington, MA 978-694-3200	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N ✓, if Y, number: 2. phase I or II construction storm water general permit? Y___ N ✓, if Y, number: 3. individual NPDES permit? Y___ N ✓, if Y, number: 4. any other water quality related permit? Y___ N ✓, if Y, number:

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage: See Attached		
b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.0223 Average flow 0.00134 Is maximum flow a **design value**? Y ✓ N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Average flow is in units of cubic feet per second and is a design value. (see attached)

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. -71 08' 27" lat. 42 39" 17"; pt.2: long._____ lat._____; pt.3: long._____ lat._____; pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): N/A	5) Is the discharge intermittent ✓ or seasonal _____? (see attached) Is discharge ongoing Yes ____ No ✓ ?

c) Expected dates of discharge (mm/dd/yy): start 04/26/10 end 05/01/14

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

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

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

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

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

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**Type of Sample (e.g., grab)**	**Analytical Method Used (method #)**	**Minimum Level (ML) of Test Method**	**Maximum daily value**		**Avg. daily value**	
							concentration (ug/l)	**mass (kg)**	**concentration (ug/l)**	**mass (kg)**
1. Total Suspended Solids		✓	1	Grab	SM 2540D	2	17		17	
2. Total Residual Chlorine	✓		1	Grab	SM4500CIF	20	0		0	
3. Total Petroleum Hydrocarbons	✓		1	Grab	1664A	1000	0		0	
4. Cyanide	✓		1	Grab	L204001A CN	10	0		0	
5. Benzene	✓		1	Grab	8260B	18	0		0	
6. Toluene	✓		1	Grab	8260B	14	0		0	
7. Ethylbenzene	✓		1	Grab	8260B	14	0		0	
8. (m,p,o) Xylenes	✓		1	Grab	8260B	34	0		0	
9. Total BTEX[4]	✓		1	Grab	8260B	34	0		0	

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	✓		1	Grab	8011	0.007	0		0	
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	Grab	8260B	16	0		0	
12. tert-Butyl Alcohol (TBA)	✓		1	Grab	8260B	210	0		0	
13. tert-Amyl Methyl Ether (TAME)	✓		1	Grab	8260B	15	0		0	
14. Naphthalene	✓		1	Grab	8270C LL	0.34	0.55		0.55	
15. Carbon Tetra-chloride	✓		1	Grab	8260B	18	0		0	
16. 1,4 Dichlorobenzene	✓		1	Grab	8260B	16	0		0	
17. 1,2 Dichlorobenzene	✓		1	Grab	8260B	16	0		0	
18. 1,3 Dichlorobenzene	✓		1	Grab	8260B	16	0		0	
19. 1,1 Dichloroethane	✓		1	Grab	8260B	17	0		0	
20. 1,2 Dichloroethane	✓		1	Grab	8260B	16	0		0	
21. 1,1 Dichloroethylene	✓		1	Grab	8260B	16	0		0	
22. cis-1,2 Dichloro-ethylene		✓	1	Grab	8260B	16	56		56	
23. Dichloromethane (Methylene Chloride)	✓		1	Grab	8260B	25	0		0	
24. Tetrachloroethylene		✓	1	Grab	8260B	12	2800		2800	

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	Grab	8260B	18	0		0	
26. 1,1,2 Trichloroethane	✓		1	Grab	8260B	18	0		0	
27. Trichloroethylene		✓	1	Grab	8260B	15	130		130	
28. Vinyl Chloride	✓		1	Grab	8260B	12	0		0	
29. Acetone	✓		1	Grab	8260B	500	0		0	
30. 1,4 Dioxane	✓		1	Grab	8260B	190	0		0	
31. Total Phenols	✓		1	Grab	L210-001A	0.0076	0		0	
32. Pentachlorophenol	✓		1	Grab	8270C LL	0.17	0		0	
33. Total Phthalates [6] (Phthalate esthers)	✓		1	Grab	8270C LL	0.71	0		0	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	Grab	8270C LL	0.41	0		0	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	Grab	8270C LL	0.35	0		0	
a. Benzo(a) Anthracene	✓		1	Grab	8270C LL	0.3	0		0	
b. Benzo(a) Pyrene	✓		1	Grab	8270C LL	0.2	0		0	
c. Benzo(b)Fluoranthene	✓		1	Grab	8270C LL	0.25	0		0	
d. Benzo(k) Fluoranthene	✓		1	Grab	8270C LL	0.13	0		0	
e. Chrysene	✓		1	Grab	8270C LL	0.35	0		0	

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		1	Grab	8270C LL	0.17	0		0	
g. Indeno(1,2,3-cd) Pyrene	✓		1	Grab	8270C LL	0.21	0		0	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓	1	Grab	8270C LL	0.58	0.55		0.55	
h. Acenaphthene	✓		1	Grab	8270C LL	0.33	0		0	
i. Acenaphthylene	✓		1	Grab	8270C LL	0.28	0		0	
j. Anthracene	✓		1	Grab	8270C LL	0.36	0		0	
k. Benzo(ghi) Perylene	✓		1	Grab	8270C LL	0.22	0		0	
l. Fluoranthene	✓		1	Grab	8270C LL	0.42	0		0	
m. Fluorene	✓		1	Grab	8270C LL	0.35	0		0	
n. Naphthalene-		✓	1	Grab	8270C LL	0.34	0.55		0.55	
o. Phenanthrene	✓		1	Grab	8270C LL	0.2	0		0	
p. Pyrene	✓		1	Grab	8270C LL	0.58	0		0	
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	Grab	608	0.44	0		0	
38. Antimony	✓		1	Grab	200.7 Rev 4	2.9	0		0	
39. Arsenic		✓	1	Grab	200.7 Rev 4	2.3	5.5		5.5	
40. Cadmium		✓	1	Grab	200.7 Rev 4	0.20	0.33		0.33	
41. Chromium III	✓		1	Grab	7196A	5	0		0	
42. Chromium VI	✓		1	Grab	7196A	5	0		0	

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	Grab	200.7 Rev 4.4	1.7	12		12	
44. Lead		✓	1	Grab	200.7 Rev 4.4	1.3	3.5		3.5	
45. Mercury	✓		1	Grab	245.1	0.065	0		0	
46. Nickel	✓		1	Grab	200.7 Rev 4.4	1.5	13		13	
47. Selenium	✓		1	Grab	200.7 Rev 4.4	2.7	0		0	
48. Silver		✓	1	Grab	200.7 Rev 4.4	1.8	3.0		3.0	
49. Zinc	✓		1	Grab	200.7 Rev 4.4	10	0		0	
50. Iron	✓		1	Grab	200.7 Rev 4.4	34	580		580	
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ✓ N ___	If yes, which metals? Arsenic, Cadmium, Copper, Lead, Silver
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: Arsenic, Cadmium, Copper, Lead, Silver (see attached) DF: 45	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ___ N ✓ If "Yes," list which metals:

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: See Attached						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks ✓	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe): pH neutralization,			
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 0.6 Maximum flow rate of treatment system 10 Design flow rate of treatment system 5						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Hydrogen Peroxide, Sodium Hydroxide						

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

a) Identify the discharge pathway:	Direct____	Within facility__	Storm drain ✓	River/brook ✓	Wetlands____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: See Attached						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water Class B.						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 1.0 cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ✓ No____ If yes, for which pollutant(s)? Pathogens, Turbidity, Other Habita Is there a TMDL? Yes ✓ No____ If yes, for which pollutant(s)? Pathogens						

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

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

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes ✓ No_____ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No ✓

7. Supplemental information. :

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

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

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

Facility/Site Name: House of Clean-9 Chestnut

Operator signature:

Title: Principal Engineer

Date: 4-8-10

RECEIVED
MAR 24 2010
BY:

RECEIVED
FEB 25 2010
MASS. HIST. COMM
RC. 48152

APPENDIX A

MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD
BOSTON, MASS. 02125
617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

After review of the MHC's **files** and the materials you submitted, **the MHC has** determined that the proposed **project will have** "no adverse effect" **on significant** historic or archaeological **properties.**

Brona Simon 3/19/2010

Brona Simon — Date
~~Executive Director~~
State Historic Preservation Officer
Massachusetts Historical Commission

Project Name: Former House of Clean-9 Chestnut Street

Location / Address: 9 Chestnut Street

City / Town: Andover, MA

Project Proponent

Name: 77 Main Street Properties, LLC, c/o Roux Associates, Inc.

Address: 67 S. Bedford Street Suite 101W

City/Town/Zip/Telephone: Burlington, MA 01803 (781) 270-6600

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name	Type of License or funding (specify)
EPA NPDES	NPDES RGP Permit

Project Description (narrative):

See attached

Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.

No

Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.

No

Does the project include new construction? If so, describe (attach plans and elevations if necessary).

Not as it pertains to the the historic listing.

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC

67 South Bedford Street, Suite 101W
Burlington, Massachusetts 01803 TEL 781-270-6600 FAX 781-270-9066

February 23, 2010

Mr. William Francis Galvin
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

Re: Project Notification for Storm Water Discharges under the National Pollution Discharge Elimination System

Dear Mr. Galvin:

On behalf of 77 Main Street Properties, LLC, Roux Associates, Inc. (Roux Associates) submits this Project Notification Form for proposed storm water discharges under the National Pollution Discharge Elimination System (NPDES) Remediation General Permit (RGP) for a Massachusetts Contingency Plan (MCP) site in Andover, Massachusetts. Roux Associates is seeking a RGP permit for a discharge associated with remedial activities for the MCP site given the Release Tracking Number (RTN) 3-25763, also known as the former House of Clean Site. This notification is being submitted in accordance with the requirements set forth in Appendix VII of the RGP to obtain the opinion of the Massachusetts Historical Commission regarding the proposed discharge's impacts on a Nationally Listed Historical Place

The former House of Clean Site covers several properties in the downtown area of Andover, Massachusetts. Migration of a historic release of dry cleaning related solvents at the property located at 77 Main Street has impacted downgradient properties along Chestnut Street and Central Street, including 9 Chestnut Street. The proposed NPDES discharge is associated with remedial activities at the 9 Chestnut Street property. These include extracting groundwater and treating it on-site. Treated water will be re-infiltrated to the subsurface to the extent feasible. Excess water may be discharging it to a nearby storm water catch basin. The catch basin is connected to the Town of Andover's storm water network, which discharges to the Shawsheen River via Rogers Brook.

The property at 9 Chestnut Street is neither listed as nor located adjacent to a listed historical place. However, the point of discharge of the storm water system at Rogers Brook and the Shawsheen River is adjacent to the listed historical place identified as the Andover Village Industrial District. Based on the National Registry of Historic Places, the Andover Village Industrial District includes several commercial properties. Roux Associates is submitting the attached Project Notification Form in accordance with Appendix VII of the RGP to the Massachusetts Historical Commission Chair, to determine if the planned activities (i.e.: the discharge) will impact the Andover Village Industrial District.

Most of the will be re-infiltrated. When complete re-infiltration is not possible, the balance of the water will be discharged on a batch basis. There will be no discharge flow at most times, with a maximum discharge rate limited at 5 gpm. Due to the small volume and flow rates, as compared to the normal flow through Rogers Brook and the Shawsheen River, it is Roux Associates' opinion that the additional flow to Rogers Brook will not impact the listed historic district.

Attached is a USGS topographic map showing the location of the project and its proposed discharge, a project notification form, and map from the Town of Andover's website depicting the boundaries of the historical district. If you have questions regarding this notification, please contact the undersigned at 781-270-6600.

Sincerely,

ROUX ASSOCIATES, INC.

Glen Gordon, PE LSP
Principal Engineer

Enclosures;

Att1 - USGS Map

Att2 - Project Notification Form

Att3 - Andover Village Industrial District Boundaries

cc: Leslie Aznoian, 77 Main Street Properties, LLC

APPENDIX A

MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD
BOSTON, MASS. 02125
617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

Project Name: Former House of Clean-9 Chestnut Street

Location / Address: 9 Chestnut Street

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Not as it pertains to the the historic listing.

APPENDIX A (continued)

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.

Yes, the Andover Village Industrial District

What is the total acreage of the project area?

Woodland	N/A acres	Productive Resources:	
Wetland	N/A acres	Agriculture	N/A acres
Floodplain	N/A acres	Forestry	N/A acres
Open space	N/A acres	Mining/Extraction	N/A acres
Developed	N/A acres	Total Project Acreage	N/A acres

What is the acreage of the proposed new construction? N/A acres

What is the present land use of the project area?

See attached

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of Person submitting this form: _____ Date: _____

Name: Glen Gorton, Roux Associates

Address: 67 South Bedford Street, Suite 101W

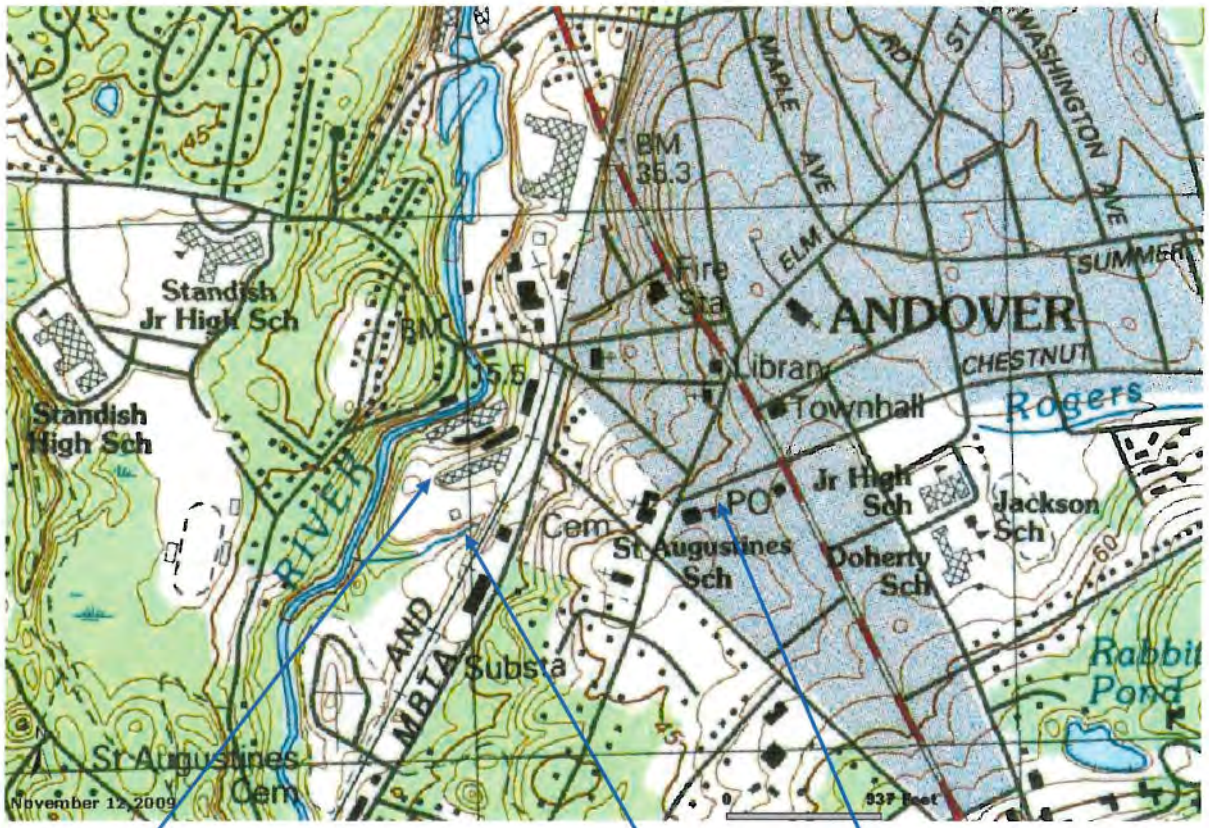
City/Town/Zip: Burlington, MA 01803

Telephone: 781-270-6600

REGULATORY AUTHORITY

950 CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St. 1988, c. 254.

Andover, Massachusetts– 1987 Lawrence USGS Topo Quad

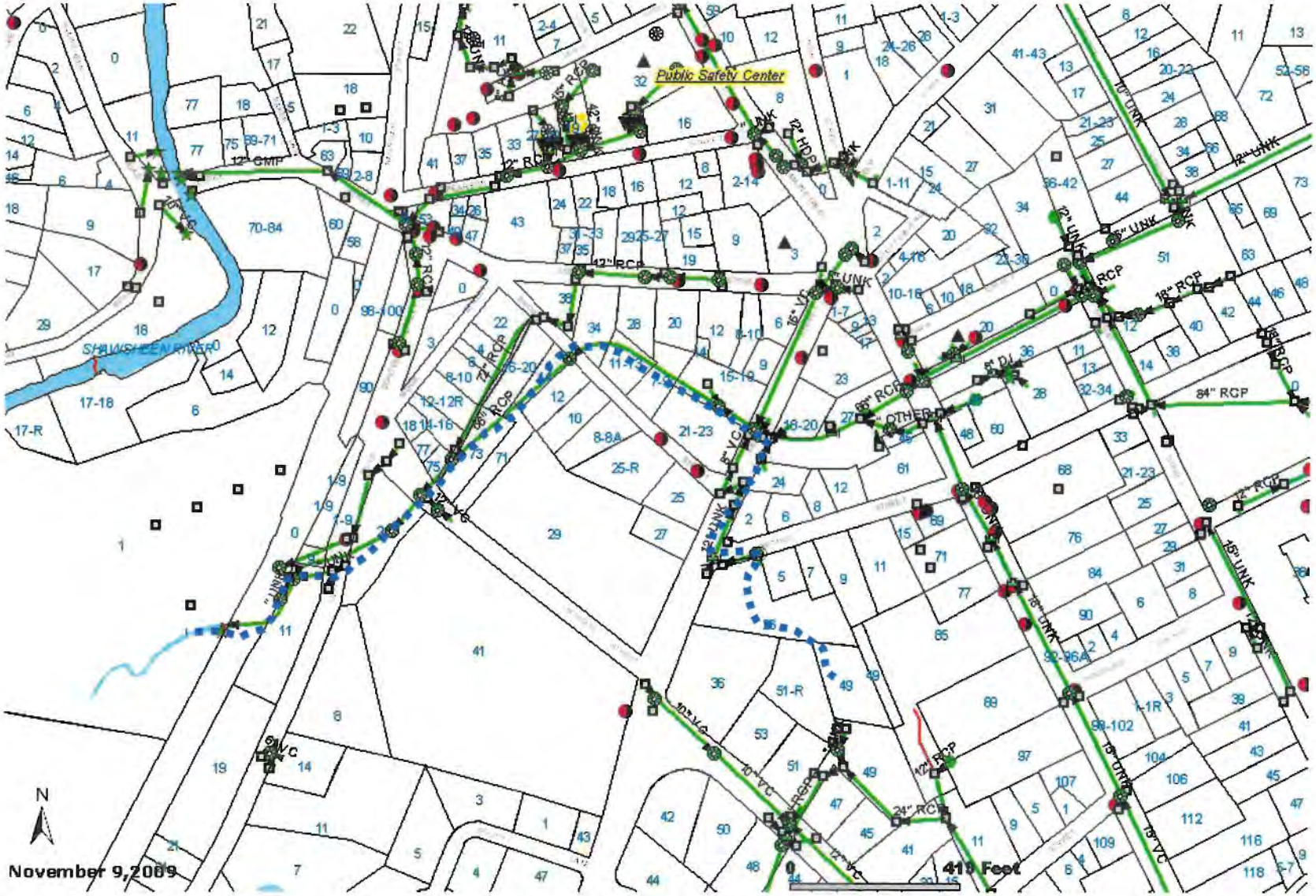


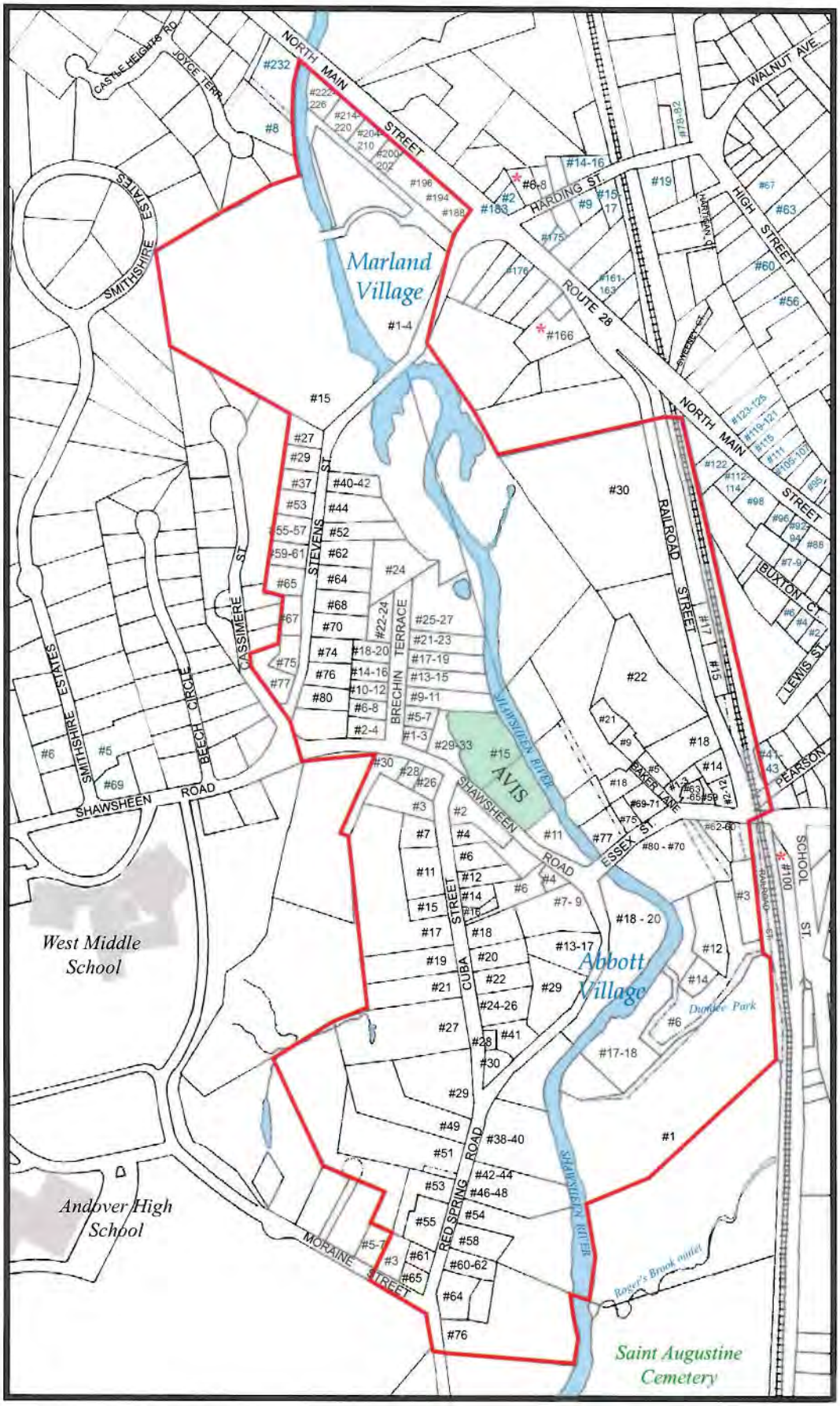
Location of Site (9 Chestnut St)

Location of Rogers Brook Outfall

Location of Andover Village Historical District

The outfall of the Rogers Brook enters the Shawsheen River upstream of the Andover Village Historical District


Public Safety Center
SHAWSHEEN RIVER
N
November 9,2009
0
419 Feet



Town of Andover Massachusetts

Andover Village Industrial National Register Historic District

LEGEND

- Andover Village Industrial NRHD
- Parcels
- Buildings
- AVIS Conservation Land

#100 - Site Address - AVINRHD

#100 - Site Address - Andover Historic Buildings Survey

* - Individually Listed National Register Property

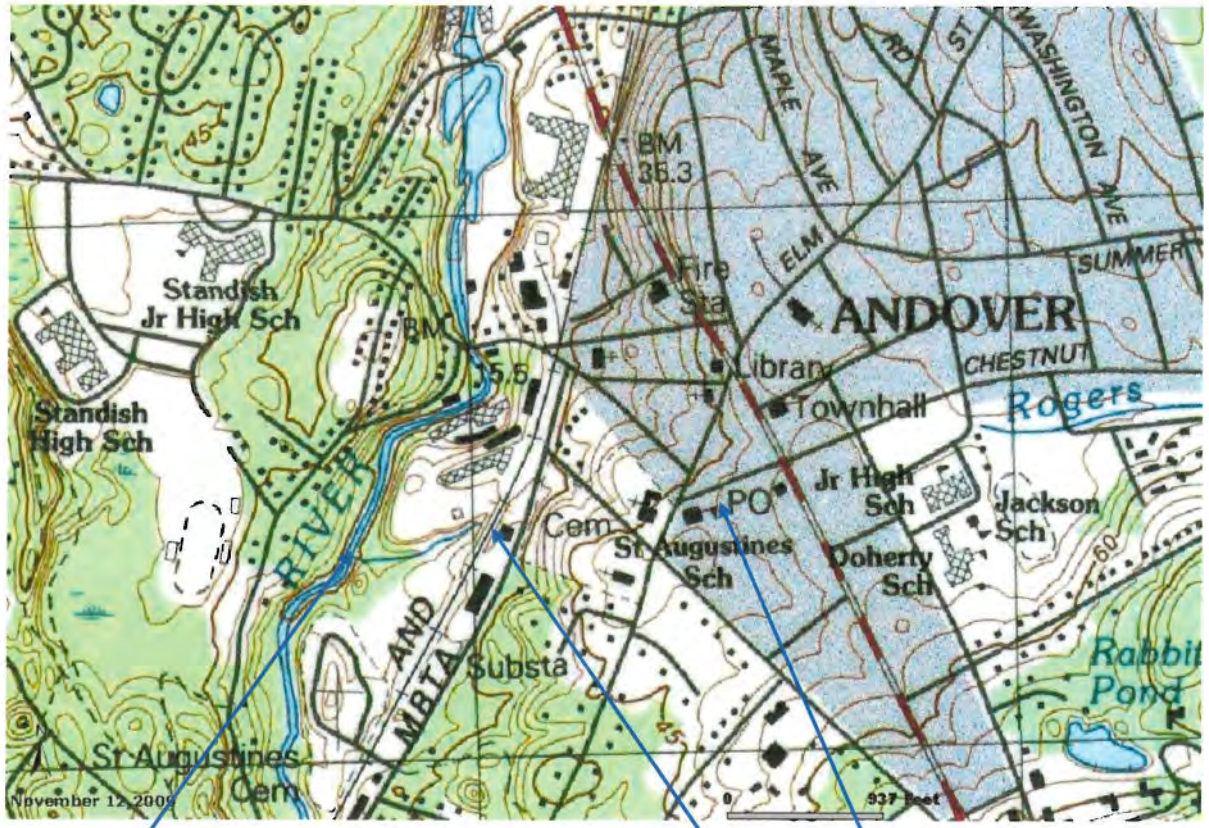
N

0 100 200 300 400 500 Feet

The Town of Andover assumes no legal responsibility for the information contained on this map. Please consult the responsible Town Departments for verification of this information.

Created by : James Batchelder
Andover Preservation Commission
Date; 12/04/2008
Source; FY08 Assessor's Maps.
Andover Village Industrial National Register Historic District - 1974-75

Discharge Pathway



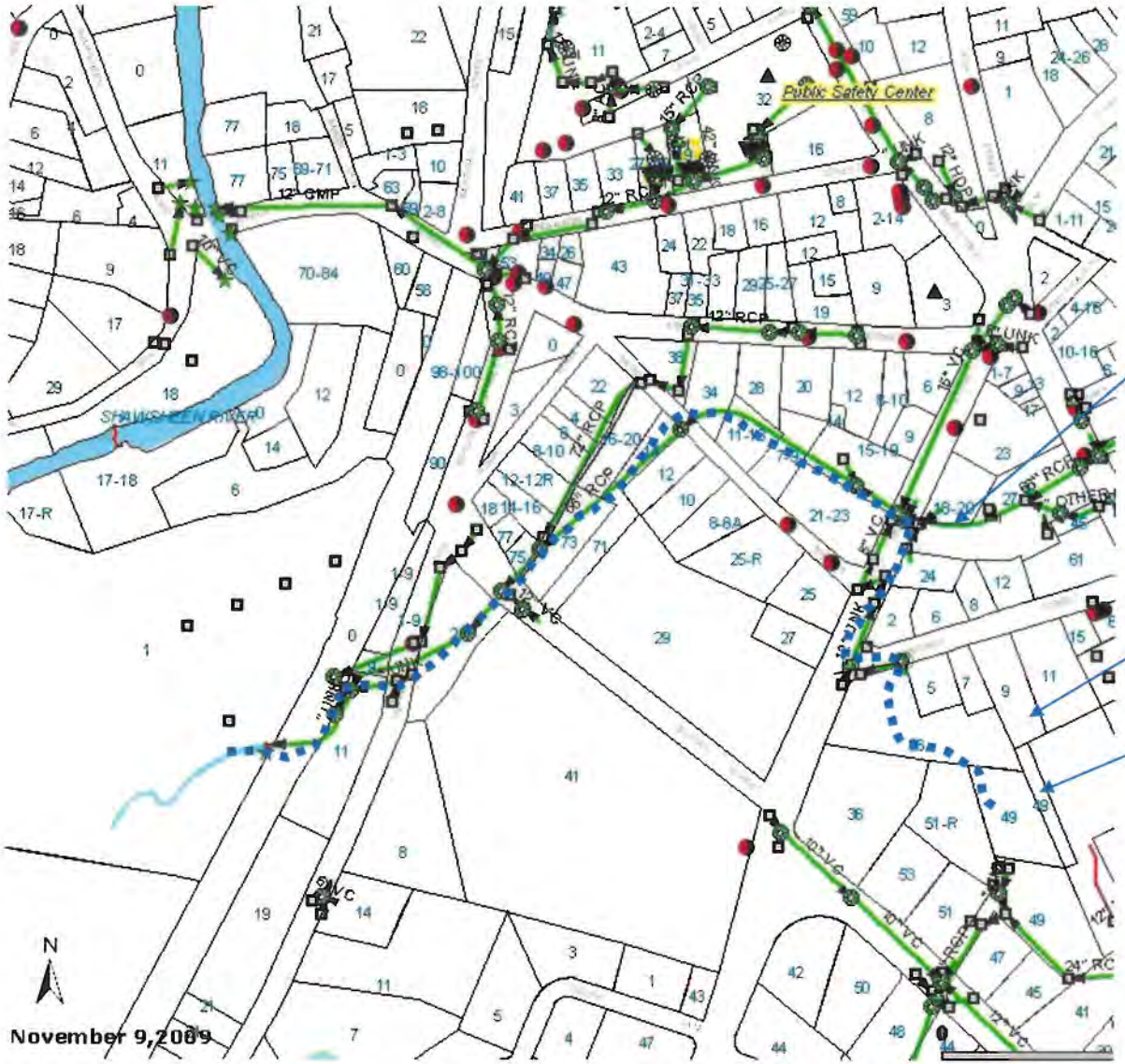
Location of Site (9 Chestnut St)

Location where Rogers Brook enters the Shawsheen River

Location of Rogers Brook Outfall

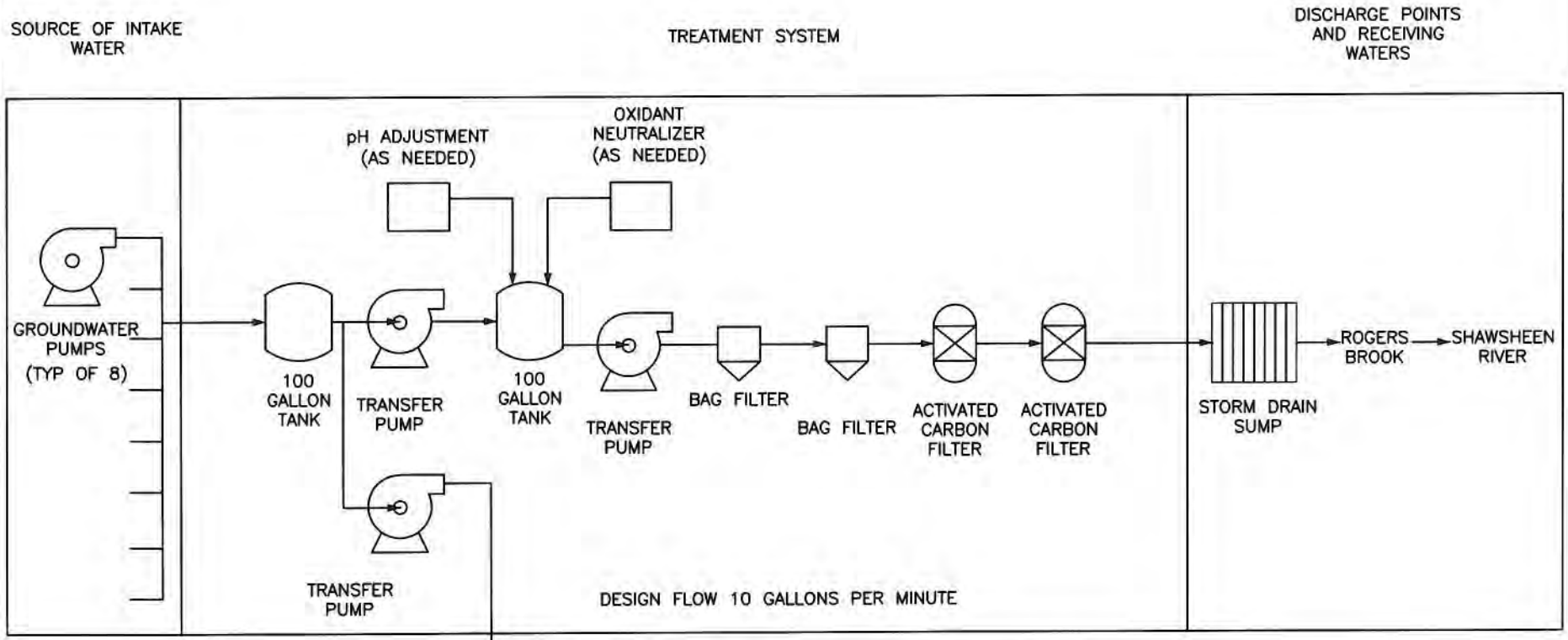
Source: Andover, Massachusetts– 1987 Lawrence USGS Topo Quad

Discharge Pathway Through Culverted Section of the Rogers Brook



Source: Town of Andover GIS

N:\PROJECTS\House of Clean\156001M02\142\SSM0014202



NOTE: ALL FLOWS ARE FROM GROUNDWATER ONLY

RE-INJECTED ON-SITE

Title:

LINE DRAWING

9 CHESTNUT STREET
ANDOVER, MA

Prepared For:

HOUSE OF CLEAN

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: WH	Date: 4/6/10	FIGURE
Prepared by: CC	Scale: AS SHOWN	1
Project Mgr: GG	Office: MA	
File No: SSM0114202	Project: 1560.001M002	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 360-24305-1

Job Description: Andover MA

For:
Roux Associates, Inc.
67 South Bedford St
Suite 101W
Burlington, MA 01803

Attention: Ian Phillips

Approved for release.
Joe Chimi
Report Production Representative
9/15/2009 3:38 PM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
09/15/2009

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 2539, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY ELAP 10843, North Carolina 647, NELAP PA 68-04386. Field sampling is performed under SOPs WE-FLD-001 and WE-FLD-002.

TestAmerica Laboratories, Inc.
TestAmerica Westfield Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085
Tel (413) 572-4000 Fax (413) 572-3707 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

Cover Title Page 1
Report Narrative 3
Method Summary 5
Method / Analyst Summary 6
Sample Summary 7
Sample Results 8
Sample Datasheets 9
Data Qualifiers 16
QC Results 17
Qc Association Summary 18
Qc Reports 23
Shipping and Receiving Documents 47
Sample Receipt Checklist 48
Client Chain of Custody 50

CASE NARRATIVE

Client: Roux Associates, Inc.

Project: Andover MA

Report Number: 360-24305-1

The samples were received on 08/26/2009; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.4°C.

VOLATILE ORGANICS

Samples 360-24305-1 and 360-24305-2 were analyzed for volatile organics in accordance with EPA SW846 Method 8260B. The samples were analyzed on 09/09/2009.

All QC performance standards and recommendations for this specific method were achieved.

Sample 360-24305-1(25X) required dilution prior to analysis. The reporting limits have been adjusted accordingly. Dilution was due to high target concentration.

SEMIVOLATILE ORGANICS

Sample 360-24305-1 was analyzed for semivolatile organics in accordance with EPA SW846 Method 8270C LL. The sample was prepared on 08/31/2009 and analyzed on 09/14/2009.

All QC performance standards and recommendations for this specific method were achieved with the exception of:

Di-n-butyl phthalate was detected in method blank MB 360-48399/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Phenol-d5 failed the surrogate recovery criteria low for 360-24305-1, MB 360-48399/1-A MB, LCS 360-48399/2-A LCS and LCSD 360-48399/3-A LCSD. In all cases, the recovery of Phenol-d5 was at or above 10%. Per method SOP, re-extraction is only required if two or more surrogates from any one fraction fail or any single surrogate falls below 10%.

4-Nitrophenol and Phenol failed the LCS recovery criteria low for LCS 360-48399/2-A. 4-Nitrophenol and Phenol failed the LCS recovery criteria low for LCSD 360-48399/3-A. Benzo[g,h,i]perylene and Dibenz(a,h)anthracene exceeded the LCS rpd limit. Refer to the QC report for details.

POLYCHLORINATED BIPHENYLS

Sample 360-24305-1 was analyzed for polychlorinated biphenyls in accordance with EPA Method 608. The sample was prepared on 08/27/2009 and analyzed on 08/28/2009.

All QC performance standards and recommendations for this specific method were achieved.

1,2-DIBROMOETHANE AND 1,2-DIBROMO-3-CHLOROPROPANE BY MICROEXTRACTION AND GAS CHROMATOGRAPHY

Sample 360-24305-1 was analyzed for 1,2-dibromoethane and 1,2-dibromo-3-chloropropane by microextraction and gas chromatography in accordance with EPA SW846 Method 8011. The sample was prepared and analyzed on 08/28/2009.

All QC performance standards and recommendations for this specific method were achieved with the exception of:

1,1,1,2-Tetrachloroethane failed the surrogate recovery criteria high for 360-24305-1 (619%). The target analyte was not detected in this sample.

TOTAL METALS

Sample 360-24305-1 was analyzed for total metals in accordance with EPA Method 200.7 Rev 4.4. The sample was prepared and analyzed on 08/27/2009.

All QC performance standards and recommendations for this specific method were achieved with the exception of:

Chromium, Nickel and Silver were detected in method blank MB 360-48234/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a

result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

TOTAL MERCURY

Sample 360-24305-1 was analyzed for total mercury in accordance with EPA Method 245.1. The sample was prepared on 08/31/2009 and analyzed on 09/01/2009.

All QC performance standards and recommendations for this specific method were achieved.

1664A

Sample 360-24305-1 was analyzed for 1664A in accordance with EPA Method 1664A. The sample was prepared and analyzed on 09/02/2009.

This analysis was performed at TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484.

MB 0.9 mg/L 5.0 mg/L RL
LCS Observed 37.3 mg/L True value 40 mg/L 93% recovery limits 78-114%
LCSD Observed 37.6 mg/L True value 40 mg/L 94% recovery limits 78-114%

HEXAVALENT CHROMIUM

Sample 360-24305-1 was analyzed for hexavalent chromium in accordance with EPA SW846 Method 7196A. The sample was analyzed on 08/27/2009.

All QC performance standards and recommendations for this specific method were achieved.

TOTAL CYANIDE

Sample 360-24305-1 was analyzed for total cyanide in accordance with LACHAT L204001A CN. The sample was prepared and analyzed on 09/04/2009.

All QC performance standards and recommendations for this specific method were achieved.

TOTAL PHENOL

Sample 360-24305-1 was analyzed for total phenol in accordance with LACHAT 210-001A. The sample was prepared and analyzed on 09/09/2009.

All QC performance standards and recommendations for this specific method were achieved.

TOTAL SUSPENDED SOLIDS

Sample 360-24305-1 was analyzed for Total Suspended Solids in accordance with SM 2540D. The sample was analyzed on 09/02/2009.

All QC performance standards and recommendations for this specific method were achieved.

RESIDUAL CHLORINE (DPD)

Sample 360-24305-1 was analyzed for Residual Chlorine (DPD) in accordance with SM 4500 Cl F. The sample was analyzed on 08/26/2009.

All QC performance standards and recommendations for this specific method were achieved.

PH

Sample 360-24305-1 was analyzed for pH in accordance with SM 4500 H+ B. The sample was analyzed on 08/27/2009.

All QC performance standards and recommendations for this specific method were achieved.

This case narrative is available in Word format upon request.

METHOD SUMMARY

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL WFD	SW846 8260B	
Purge and Trap	TAL WFD		SW846 5030B
Semivolatile Organic Compounds by GCMS - Low Levels	TAL WFD	SW846 8270C LL	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		SW846 3510C
Organochlorine Pesticides/PCBs in Water	TAL WFD	40CFR136A 608	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		40CFR136A CWA_Prep
EDB, DBCP, and 1,2,3-TCP (GC)	TAL WFD	SW846 8011	
Microextraction	TAL WFD		SW846 8011
Metals (ICP)	TAL WFD	EPA 200.7 Rev 4.4	
Preparation, Total Metals	TAL WFD		EPA 200.7
Mercury (CVAA)	TAL WFD	EPA 245.1	
Preparation, Mercury	TAL WFD		EPA 245.1
Chromium, Trivalent (Colorimetric)	TAL WFD	SW846 7196A	
HEM and SGT-HEM	TAL CHI	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL CHI		1664A 1664A
Chromium, Hexavalent	TAL WFD	SW846 7196A	
Cyanide, Total	TAL WFD	LACHAT L204001A CN	
Distillation, Cyanide	TAL WFD		Distill/CN
Phenolics, Total Recoverable	TAL WFD	LACHAT L210-001A	
Distillation, Phenolics	TAL WFD		Distill/Phenol
Solids, Total Suspended (TSS)	TAL WFD	SM SM 2540D	
Chlorine, Residual	TAL WFD	SM SM 4500 Cl F	
pH	TAL WFD	SM SM 4500 H+ B	

Lab References:

TAL CHI = TestAmerica Chicago

TAL WFD = TestAmerica Westfield

Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

LACHAT = LACHAT

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Method	Analyst	Analyst ID
SW846 8260B	Tester, Carla	CT
SW846 8270C LL	Sullivan, Pat J	PJS
40CFR136A 608	Zuccala, Marissa	MZ
SW846 8011	Pham, Tam	TP
EPA 200.7 Rev 4.4	Smith, Tim J	TJS
EPA 245.1	Nasiatka, Ellen M	EMN
SW846 7196A	Smith, Tim J	TJS
1664A 1664A	Brogan, Mary T	MTB
SW846 7196A	Emerich, Rich W	RWE
LACHAT L204001A CN	Lalashius, Andrew L	ALL
LACHAT L210-001A	Lalashius, Andrew L	ALL
SM SM 2540D	Sadowski, Scott	SS
SM SM 4500 Cl F	Benoit, Gary R	GRB
SM SM 4500 H+ B	Emerich, Rich W	RWE

SAMPLE SUMMARY

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-24305-1	CC-8	Ground Water	08/26/2009 1137	08/26/2009 1530
360-24305-2	Trip Blank	Water	08/26/2009 1137	08/26/2009 1530

SAMPLE RESULTS

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1
Client Matrix: Ground Water

Date Sampled: 08/26/2009 1137
Date Received: 08/26/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 09/09/2009 2030
Date Prepared: 09/09/2009 2030

Analysis Batch: 360-48760

Instrument ID: Agilent#2 GC/MS
Lab File ID: V06836.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		18	25
Toluene	ND		14	25
Ethylbenzene	ND		17	25
o-Xylene	ND		14	25
m-Xylene & p-Xylene	ND		34	50
Methyl tert-butyl ether	ND		16	25
Butyl alcohol, tert-	ND		210	1200
Tert-amyl methyl ether	ND		15	120
Carbon tetrachloride	ND		18	25
1,1,1-Trichloroethane	ND		18	25
1,1,2-Trichloroethane	ND		18	25
1,1-Dichloroethane	ND		17	25
1,1-Dichloroethene	ND		16	25
1,2-Dichlorobenzene	ND		16	25
1,2-Dichloroethane	ND		16	25
1,3-Dichlorobenzene	ND		16	25
1,4-Dioxane	ND		190	1200
1,4-Dichlorobenzene	ND		16	25
Acetone	ND		500	1200
cis-1,2-Dichloroethene	56		16	25
Methylene Chloride	ND		25	50
Tetrachloroethene	2800		12	25
Trichloroethene	130		15	25
Vinyl chloride	ND		12	12

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	90		70 - 130
Dibromofluoromethane	113		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: Roux Associates, Inc. Job Number: 360-24305-1

Client Sample ID: **Trip Blank**

Lab Sample ID: 360-24305-2 Date Sampled: 08/26/2009 1137
Client Matrix: Water Date Received: 08/26/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-48713	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V06788.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/09/2009 0235		Final Weight/Volume:	5 mL
Date Prepared:	09/09/2009 0235			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		0.74	1.0
Toluene	ND		0.56	1.0
Ethylbenzene	ND		0.67	1.0
o-Xylene	ND		0.54	1.0
m-Xylene & p-Xylene	ND		1.4	2.0
Methyl tert-butyl ether	ND		0.63	1.0
Butyl alcohol, tert-	ND		8.5	50
Tert-amyl methyl ether	ND		0.61	5.0
Carbon tetrachloride	ND		0.71	1.0
1,1,1-Trichloroethane	ND		0.70	1.0
1,1,2-Trichloroethane	ND		0.72	1.0
1,1-Dichloroethane	ND		0.67	1.0
1,1-Dichloroethene	ND		0.64	1.0
1,2-Dichlorobenzene	ND		0.62	1.0
1,2-Dichloroethane	ND		0.62	1.0
1,3-Dichlorobenzene	ND		0.64	1.0
1,4-Dioxane	ND		7.7	50
1,4-Dichlorobenzene	ND		0.62	1.0
Acetone	ND		20	50
cis-1,2-Dichloroethene	ND		0.65	1.0
Methylene Chloride	ND		1.0	2.0
Tetrachloroethene	ND		0.48	1.0
Trichloroethene	ND		0.59	1.0
Vinyl chloride	ND		0.46	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88		70 - 130
Dibromofluoromethane	107		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1
Client Matrix: Ground Water

Date Sampled: 08/26/2009 1137
Date Received: 08/26/2009 1530

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Method:	8270C LL	Analysis Batch: 360-48893		Instrument ID:	Inst. B
Preparation:	3510C	Prep Batch: 360-48399		Lab File ID:	B10290.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	09/14/2009 1735			Final Weight/Volume:	1.0 mL
Date Prepared:	08/31/2009 1538			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-Trichlorophenol	ND		0.26	5.0
2,4,6-Trichlorophenol	ND		0.31	5.0
2,4-Dichlorophenol	ND		0.30	5.0
2,4-Dinitrophenol	ND		0.083	5.0
2,4-Dimethylphenol	ND		0.40	5.0
2-Chlorophenol	ND		0.23	5.0
2-Methylphenol	ND		0.20	5.0
2-Nitrophenol	ND		0.22	5.0
3 & 4 Methylphenol	ND		0.15	5.0
4,6-Dinitro-2-methylphenol	ND		0.25	5.0
4-Chloro-3-methylphenol	ND		0.41	5.0
4-Nitrophenol	ND	*	0.054	5.0
Acenaphthene	ND		0.33	1.0
Acenaphthylene	ND		0.28	0.30
Anthracene	ND		0.36	1.0
Benzo[a]anthracene	ND		0.30	0.30
Benzo[a]pyrene	ND		0.20	0.20
Benzo[b]fluoranthene	ND		0.25	0.30
Benzo[g,h,i]perylene	ND	*	0.22	0.50
Benzo[k]fluoranthene	ND		0.13	0.30
Bis(2-ethylhexyl) phthalate	ND		0.41	2.0
Butyl benzyl phthalate	ND		0.53	5.0
Chrysene	ND		0.35	1.0
Di-n-butyl phthalate	ND		0.71	5.0
Di-n-octyl phthalate	ND		0.22	5.0
Dibenz(a,h)anthracene	ND	*	0.17	0.50
Diethyl phthalate	ND		0.39	5.0
Dimethyl phthalate	ND		0.37	5.0
Fluoranthene	ND		0.42	1.0
Fluorene	ND		0.35	1.0
Indeno[1,2,3-cd]pyrene	ND		0.21	0.50
Naphthalene	0.55	J	0.34	1.0
Pentachlorophenol	ND		0.17	1.0
Phenanthrene	ND		0.20	0.20
Phenol	ND	*	0.075	5.0
Pyrene	ND		0.58	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	68		15 - 110
2-Fluorobiphenyl	56		30 - 130
2-Fluorophenol	23		15 - 110
Phenol-d5	13	X	15 - 110
Terphenyl-d14	76		30 - 130
Nitrobenzene-d5	61		30 - 130

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1
Client Matrix: Ground Water

Date Sampled: 08/26/2009 1137
Date Received: 08/26/2009 1530

608 Organochlorine Pesticides/PCBs in Water

Method:	608	Analysis Batch: 360-48371		Instrument ID:	Inst. M
Preparation:	CWA_Prep	Prep Batch: 360-48286		Initial Weight/Volume:	1080 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	08/28/2009 1906			Injection Volume:	1.0 uL
Date Prepared:	08/27/2009 1520			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.25	0.93
PCB-1221	ND		0.41	0.93
PCB-1232	ND		0.31	0.93
PCB-1242	ND		0.17	0.93
PCB-1248	ND		0.35	0.93
PCB-1254	ND		0.31	0.93
PCB-1260	ND		0.23	0.93

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	77		30 - 150
DCB Decachlorobiphenyl	76		30 - 150

Client: Roux Associates, Inc.

Job Number: 360-24305-1

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1
Client Matrix: Ground Water

Date Sampled: 08/26/2009 1137
Date Received: 08/26/2009 1530

8011 EDB, DBCP, and 1,2,3-TCP (GC)

Method:	8011	Analysis Batch: 360-48315		Instrument ID:	Inst. U
Preparation:	8011	Prep Batch: 360-48314		Initial Weight/Volume:	35.15 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Date Analyzed:	08/28/2009 1451			Injection Volume:	1 uL
Date Prepared:	08/28/2009 1133			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0070	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,1,1,2-Tetrachloroethane	619	X	70 - 130

Client: Roux Associates, Inc. Job Number: 360-24305-1

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1 Date Sampled: 08/26/2009 1137
Client Matrix: Ground Water Date Received: 08/26/2009 1530

200.7 Rev 4.4 Metals (ICP)

Method:	200.7 Rev 4.4	Analysis Batch: 360-48308		Instrument ID:	Varian ICP
Preparation:	200.7	Prep Batch: 360-48234		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	08/27/2009 1441			Final Weight/Volume:	50 mL
Date Prepared:	08/27/2009 0740				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	3.0	J B	1.8	5.0
Arsenic	5.5	J	2.3	10
Cadmium	0.33	J	0.20	1.0
Chromium	3.2	J B	1.3	5.0
Copper	12		1.7	10
Iron	580		34	100
Nickel	13	B	1.5	10
Lead	3.5	J	1.3	5.0
Antimony	ND		2.9	6.0
Selenium	ND		2.7	10
Zinc	ND		10	50

245.1 Mercury (CVAA)

Method:	245.1	Analysis Batch: 360-48431		Instrument ID:	Hg Analyzer
Preparation:	245.1	Prep Batch: 360-48365		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	09/01/2009 0932			Final Weight/Volume:	10 mL
Date Prepared:	08/31/2009 0731				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.065	0.20

7196A Chromium, Trivalent (Colorimetric)

Method:	7196A	Analysis Batch: 360-48386		Instrument ID:	NOEQUIP
Preparation:	N/A			Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	08/31/2009 1353			Final Weight/Volume:	1.0 mL
Date Prepared:					

Analyte	Result (mg/L)	Qualifier	RL	RL
Chromium, trivalent	ND		0.0050	0.0050

General Chemistry

Client Sample ID: CC-8

Lab Sample ID: 360-24305-1
Client Matrix: Ground Water

Date Sampled: 08/26/2009 1137
Date Received: 08/26/2009 1530

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
SGT-HEM	ND		mg/L	1.0	4.7	1.0	1664A
Analysis Batch: 500-70974	Date Analyzed: 09/02/2009 1410						
Prep Batch: 500-70973	Date Prepared: 09/02/2009 0905						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Cr (VI)	ND		mg/L	0.0050	0.0050	1.0	7196A
Analysis Batch: 360-48249	Date Analyzed: 08/27/2009 1023						
Chlorine	ND	HF	mg/L	0.020	0.020	1.0	SM 4500 Cl F
Analysis Batch: 360-48276	Date Analyzed: 08/26/2009 1610						
Total Suspended Solids	17		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 360-48484	Date Analyzed: 09/02/2009 0736						
Cyanide, Total	ND		mg/L	0.010	0.010	1.0	L204001A CN
Analysis Batch: 360-48615	Date Analyzed: 09/04/2009 1136						
Prep Batch: 360-48608	Date Prepared: 09/04/2009 0902						
pH	5.28	HF	SU	0.100	0.100	1.0	SM 4500 H+ B
Analysis Batch: 360-48260	Date Analyzed: 08/27/2009 1029						
Phenols, Total	ND		mg/L	0.0076	0.0076	1.0	L210-001A
Analysis Batch: 360-48763	Date Analyzed: 09/09/2009 1527						
Prep Batch: 360-48759	Date Prepared: 09/09/2009 1355						

DATA REPORTING QUALIFIERS

Client: Roux Associates, Inc. Job Number: 360-24305-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	RPD of the LCS and LCSD exceeds the control limits
	X	Surrogate exceeds the control limits
GC Semi VOA		
	X	Surrogate exceeds the control limits
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes