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March 16, 2006

GeoInsight Project 3256-000

United States Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Notice of Intent for the Remediation General Permit
Mobil Car Wash/Retail Gasoline Station
243 Main Street
Athol, Massachusetts
MADEP RTN # 2-10498
Former Tier 1C Permit # 106118
NPDES Permit Exclusion Reference #02-009

Dear Sir/Madam:

GeoInsight, Inc. is providing a completed Notice of Intent (NOI) application form and supporting information for a Remediation General Permit (RGP) for the Mobil Car Wash/Retail Gasoline Station property located at 243 Main Street in Athol, Massachusetts (the Site). The NOI application form is included as Attachment A. Sites covered under the Massachusetts Contingency Plan (MCP) are not required to apply to the State for coverage under BRP WM 12 - Request for General Permit Coverage: Remediation & Miscellaneous Contaminated Sites; therefore, the BRP WM 12 form was not completed for this property.

The release of gasoline associated with this Site was identified on September 26, 1994, when a 72-hour release notification was triggered due to the recording of a soil headspace reading greater than 100 parts per million (ppm) during underground storage tank removal activities. The incident was assigned release tracking number (RTN) 2-10498. Various investigations were subsequently completed in accordance with the MCP to assess the environmental conditions at the Site. Results indicated that response actions were necessary. Ground water treatment in conjunction with soil vapor extraction (SVE) were identified as effective remedial action alternatives for the Site. The ground water treatment system was activated on March 3, 2003, and has been/continues to be sampled monthly as required by the National Pollutant Discharge Elimination System (NPDES) Permit Exclusion #02-009. A copy of the NPDES Permit Exclusion is included as Attachment B.

The objective of the ground water extraction and treatment system is to depress the ground water table to enhance the performance of SVE by increasing the vadose zone. The extracted vapors are treated using vapor-phase granular activated carbon. Ground water is currently pumped from eight 8-inch diameter overburden extraction wells located on and adjacent to the Site. The extracted ground water is pumped to two bag filters and two liquid-phase granular activated carbon (LGAC) units plumbed in-series. The bag filters are located in-line prior to the LGAC units and consist of a 200 micrometer (μm) primary and a 100 μm secondary filtering unit. Two vessels, each containing approximately 600 pounds of reactivated coconut-coal based LGAC (1,200 pounds total), are used to treat the extracted ground water prior to discharge.

Treated water is discharged to a catch basin located in Main Street, approximately 20 feet east of the Main Street intersection with Freedom Street. The catch basin is connected to the storm water catch basin system running parallel (east to west) with Main Street and eventually flows into Millers River from a discharge point beneath the Main Street Bridge, approximately 2,000 feet to the west of the Site. A piping and instrumentation diagram, a topographic map, and a watershed map showing the receiving water(s) are included as Attachment C.

As required by the NPDES Exclusion, water samples are collected during monthly operation and maintenance visits from sampling locations on the treatment system influent, midpoint (after treatment by the lead LGAC unit), and effluent. The samples are analyzed for benzene, toluene, ethylbenzene, xylenes, methyl-tertiary-butyl ether, and naphthalene by United States Environmental Protection Agency (USEPA) Method 8260B; total petroleum hydrocarbons (gasoline range organics) by USEPA Method 8015B; and total suspended solids by USEPA Method 160.2. Analytical results are summarized and compared with the established permit discharge limits and summary reports are transmitted to the USEPA monthly.

As required by the NPDES RGP application, additional analytical data was obtained to evaluate the presence or absence of specific contaminants. Constituents analyzed included volatile organic compounds by USEPA Methods 624 and 524.2, semi-volatiles (acid-base neutral suite and polycyclic aromatics) by USEPA Method 8270C, polychlorinated biphenyls by USEPA Method 8082, 1,2-dibromoethane and 1,4 dioxane by USEPA Method 524.2, priority pollutant metals by USEPA Method 6010B except total mercury, and chromium VI which were analyzed by USEPA Methods 7470A and 3500 respectively, and total cyanide by USEPA Method 335.2. A copy of analytical data, criteria, and a case narrative discussing differences for several of the analytical methods used for the RGP application is included in Attachment D.

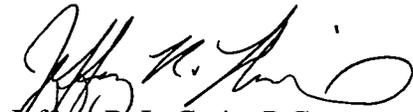
Residual chlorine was tested using Method 4500CIG; however, the results were outside of the control limits. Therefore another sample was collected and tested in the field using test strips and residual chlorine was found to not be present.

Influent cadmium, copper, lead, and iron concentrations were greater than the freshwater limits with zero dilution. A dilution factor was calculated using the methodology described in Appendix V: NOI, Notice of Change, and Notice of Termination Suggested Forms & Instructions. A summary of the dilution factor calculations is included in Appendix E. The

untreated influent concentrations of cadmium, copper, and lead were below the applicable total recoverable metals limit. The untreated influent for iron was greater than the total recoverable metals limit. As such, treatment will be required for the effluent in order to meet the discharge limit for iron.

If you have questions regarding the information contained in this submittal, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.



Jeffrey R. LaCroix, P.G.
Senior Geologist



Michael F. Dacey, P.G., L.S.P.
Associate

Enclosures

cc: Peterborough Oil Company, Inc.
MADEP, Division of Watershed Management
Town of Athol, Board of Selectmen

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ATTACHMENT A
NOTICE OF INTENT FORM

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: Mobil Car Wash / Retail Gasoline Station		Facility/site address:	
Location of facility/site: Longitude: 72° 14' 04" Latitude: 42° 35' 37"	Facility SIC code(s): 4471, 7542	Street: 243 Main Street	
b) Name of facility/site owner: Peterborough Oil Company		Town: Athol	
Email address of owner: tpeterson@poci.net	State: Massachusetts	Zip: 01331	County: Worcester
Telephone no. of facility/site owner: (978) 534-6587	Owner is (check one): 1. Federal ___ 2. State/Tribal ___		
Fax no. of facility/site owner: (978) 537-4091	3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:		
Address of owner (if different from site):			
Street: 665 North Main Street			
Town: Leominster	State: MA	Zip: 01453	County: Worcester
c) Legal name of operator: GeoInsight, Inc.		Operator telephone no: (603) 314-0820	
		Operator fax no.: (603) 314-0821	Operator email: jrlacrobix@geoinc.com
Operator contact name and title: Jeffery R. LaCroix			
Address of operator (if different from owner):		Street: 25 Sundial Avenue, Suite 515W	
Town: Manchester	State: NH	Zip: 03103	County: Hillsborough
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input checked="" type="checkbox"/> No ___ , if "yes," number: No. 02-009			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.27? Yes ___ No <input checked="" type="checkbox"/>			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes <input checked="" type="checkbox"/> No ___			

<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ___ No <u>X</u></p> <p>If "yes," please list:</p> <ol style="list-style-type: none"> 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number: 	<p>f) Is the site/facility covered by any other EPA permit, including:</p> <ol style="list-style-type: none"> 1. multi-sector storm water general permit? Y ___ N <u>X</u>, if Y, number: 2. phase I or II construction storm water general permit? Y ___ N <u>X</u>, if Y, number: 3. individual NPDES permit? Y ___ N <u>X</u>, if Y, number: 4. any other water quality related permit? Y ___ N <u>X</u>, if Y, number:
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

<p>a) Describe the discharge activities for which the owner/applicant is seeking coverage:</p> <p style="text-align: center;"><i>Groundwater pump and treatment system operating in conjunction with a soil vapor extraction and treatment system.</i></p>			
<p>b) Provide the following information about each discharge:</p>	<table border="1"> <tr> <td style="vertical-align: top;"> <p>1) Number of discharge points: <u>1</u></p> </td> <td style="vertical-align: top;"> <p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>0.045 cfs</u> Average flow <u>0.014 cfs</u> Is maximum flow a design value? Y <u>X</u> N ___ <u>Based upon equipment limitations.</u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>Average flow was estimated from flow data collected during routine operations and maintenance visits.</u></p> </td> </tr> </table>	<p>1) Number of discharge points: <u>1</u></p>	<p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>0.045 cfs</u> Average flow <u>0.014 cfs</u> Is maximum flow a design value? Y <u>X</u> N ___ <u>Based upon equipment limitations.</u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>Average flow was estimated from flow data collected during routine operations and maintenance visits.</u></p>
<p>1) Number of discharge points: <u>1</u></p>	<p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>0.045 cfs</u> Average flow <u>0.014 cfs</u> Is maximum flow a design value? Y <u>X</u> N ___ <u>Based upon equipment limitations.</u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>Average flow was estimated from flow data collected during routine operations and maintenance visits.</u></p>		
<p>3) Latitude and longitude of each discharge within 100 feet (pt. 1) long. <u>72°14'44"</u> lat. <u>42°35'36"</u> 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.</p>			
<p>4) If hydrostatic testing, total volume of the discharge (gals): <u>N/A</u></p>	<p>5) Is the discharge intermittent <u>X</u> or seasonal ___? Is discharge ongoing Yes <u>X</u> No ___?</p>		
<p>c) Expected dates of discharge (mm/dd/yy): start <u>11/05/2001</u> end <u>TBD - when treatment criteria are met.</u></p>			
<p>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). <u>SEE ATTACHED.</u></p>			

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 <input checked="" type="checkbox"/>	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 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		X	1	Grab	E160.2	5 mg/L	6,000	0.65	6,000	0.21
2. Total Residual Chlorine	X		1	Grab	Test strip	Present/Absent	⊖	⊖	⊖	⊖
3. Total Petroleum Hydrocarbons	X		1	Grab	E1664A	5 mg/L	⊖	⊖	⊖	⊖
4. Cyanide	X		1	Grab	E335.2	10 ug/L	⊖	⊖	⊖	⊖
5. Benzene		X	1	Grab	Method 624	2 ug/L	130	0.014	130	0.0046
6. Toluene		X	1	Grab	Method 624	2 ug/L	2,000	0.22	2,000	0.071
7. Ethylbenzene		X	1	Grab	Method 624	2 ug/L	440	0.048	440	0.016
8. (m,p,o) Xylenes		X	1	Grab	Method 624	10 ug/L	3,300	0.36	3,300	0.12
9. Total BTEX ⁴		X	1	Grab	Method 624	2 ug/L	5,870	0.64	5,870	0.21

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2-Dibromo-methane)		X	1	Grab	Method 524.2	0.1 ug/L	1.5	1.6×10^{-4}	1.5	5.3×10^{-5}
11. Methyl-tert-Butyl Ether (MTBE)		X	1	Grab	Method 524.2	5.0 ug/L	36	0.0039	36	0.0013
12. tert-Butyl Alcohol (TBA)	X		1	Grab	Method 524.2	100 ug/L	Ø	Ø	Ø	Ø
13. tert-Amyl Methyl Ether (TAME)	X		1	Grab	Method 524.2	0.5 ug/L*	Ø	Ø	Ø	Ø
14. Naphthalene		X	1	Grab	Method 524.2	2 ug/L	180	0.020	180	0.0064
15. Carbon Tetrachloride	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
16. 1,4 Dichlorobenzene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
17. 1,2 Dichlorobenzene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
18. 1,3 Dichlorobenzene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
19. 1,1 Dichloroethane	X		1	Grab	Method 624	1 ug/L	Ø	Ø	Ø	Ø
20. 1,2 Dichloroethane	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
21. 1,1 Dichloroethylene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
22. cis-1,2 Dichloroethylene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
23. Dichloromethane (Methylene Chloride)	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø
24. Tetrachloroethylene	X		1	Grab	Method 624	2 ug/L	Ø	Ø	Ø	Ø

* quantification limit of sampling data.

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		1	Grab	Method 624	2 ug/L	0	0	0	0
26. 1,1,2 Trichloroethane	X		1	Grab	Method 624	2 ug/L	0	0	0	0
27. Trichloroethylene	X		1	Grab	Method 624	2 ug/L	0	0	0	0
28. Vinyl Chloride	X		1	Grab	Method 624	2 ug/L	0	0	0	0
29. Acetone	X		1	Grab	Method 524.2	1 ug/L	0	0	0	0
30. 1,4 Dioxane			1	Grab	Method 524.2	50 ug/L	0	0	0	0
31. Total Phenols		X	1	Grab	Method 8270C	NL	20.8	0.0023	20.8	7.4×10^{-4}
32. Pentachlorophenol	X		1	Grab	Method 8270C	NL	0	0	0	0
33. Total Phthalates ⁶ (Phthalate esters)			1	Grab	Method 8270C	NL	0	0	0	0
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		1	Grab	Method 8270C	NL	0	0	0	0
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X		1	Grab	Method 8270C	NL	0	0	0	0
a. Benzo(a) Anthracene	X		1	Grab	Method 8270C	NL	0	0	0	0
b. Benzo(a) Pyrene	X		1	Grab	Method 8270C	NL	0	0	0	0
c. Benzo(b) Fluoranthene	X		1	Grab	Method 8270C	NL	0	0	0	0
d. Benzo(k) Fluoranthene	X		1	Grab	Method 8270C	NL	0	0	0	0
e. Chrysene	X		1	Grab	Method 8270C	NL	0	0	0	0

NL - ML of test method not listed in Appendix VI.

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		1	Grab	Method 8270C	NL	0	0	0	0
g. Indeno(1,2,3-cd) Pyrene	X		1	Grab	Method 8270C	NL	0	0	0	0
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		X	1	Grab	Method 8270C	NL	98	0.011	98	0.0035
h. Acenaphthene	X		1	Grab	Method 8270C	NL	0	0	0	0
i. Acenaphthylene	X		1	Grab	Method 8270C	NL	0	0	0	0
j. Anthracene	X		1	Grab	Method 8270C	NL	0	0	0	0
k. Benzo(ghi) Perylene	X		1	Grab	Method 8270C	NL	0	0	0	0
l. Fluoranthene	X		1	Grab	Method 8270C	NL	0	0	0	0
m. Fluorene	X		1	Grab	Method 8270C	NL	0	0	0	0
n. Naphthalene-		X	1	Grab	Method 8270C	NL	98		98	
o. Phenanthrene	X		1	Grab	Method 8270C	NL	0	0	0	0
p. Pyrene	X		1	Grab	Method 8270C	NL	0	0	0	0
37. Total Polychlorinated Biphenyls (PCBs)	X		1	Grab	Method 8082A	NL	0	0	0	0
38. Antimony		X	1	Grab	Method 6010B	50 ug/L	1	1.1×10^{-4}	1	3.5×10^{-5}
39. Arsenic	X		1	Grab	Method 6010B	5 ug/L	0	0	0	0
40. Cadmium		X	1	Grab	Method 6010B	5 ug/L	0.4	4.4×10^{-5}	0.4	1.4×10^{-5}
41. Chromium III	X		1	Grab	Method 6010B	10 ug/L	0	0	0	0
42. Chromium VI	X		1	Grab	Method 3500	10 ug/L	0	0	0	0

NL - ML of test method not listed in Appendix VI.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		X	1	Grab	Method 6010B	5 ug/L	16	0.0017	16	5.7×10^{-4}
44. Lead		X	1	Grab	Method 6010B	40 ug/L	60	0.0065	60	0.0021
45. Mercury	X		1	Grab	Method 7470A	0.2 ug/L	0	0	0	0
46. Nickel		X	1	Grab	Method 6010B	10 ug/L	3	3.3×10^{-4}	3	1.1×10^{-4}
47. Selenium		X	1	Grab	Method 6010B	50 ug/L	1	1.1×10^{-4}	1	3.5×10^{-5}
48. Silver	X		1	Grab	Method 6010B	10 ug/L	0	0	0	0
49. Zinc		X	1	Grab	Method 6010B	10 ug/L	50	0.0055	50	0.0018
50. Iron		X	1	Grab	Method 6010B	NL	9400	1.02	9400	0.33
Other (describe):										

NL - ML for test method was not listed in Appendix VI.

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

<p>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 X N</p>	<p>If yes, which metals? Cadmium, Copper, Lead & Iron</p>
<p>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: Cadmium, Copper, Lead & Iron DF: 494</p>	<p>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 X N If "Yes," list which metals: Iron</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:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter <input checked="" type="checkbox"/>	GAC filter <input checked="" type="checkbox"/>
	Chlorination	Dechlorination	Other (please describe): Flow totalizer (design limitation of 20 gpm)			
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 <u>6.5 gpm</u> Maximum flow rate of treatment system <u>20 gpm</u> Design flow rate of treatment system <u>20 gpm - limited by the flow totalizer device.</u>						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): <u>No additives currently used.</u>						

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

a) Identify the discharge pathway:	Direct <input type="checkbox"/>	Within facility <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	River/brook <input type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: <u>Treatment system discharges directly to storm drain through underground piping. Storm drain eventually discharges to Millers River.</u>						
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 <u>Class B</u> ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>21.97</u> 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, for which pollutant(s)? <u>unknown toxicity, priority organics, metals, nutrients, and pathogens.</u> Is there a TMDL? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, for which pollutant(s)? <u>phosphorus</u>						

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 <input checked="" type="checkbox"/>
Has any consultation with the federal services been completed? No <input checked="" type="checkbox"/> or is consultation underway? Yes ___ No <input checked="" type="checkbox"/>
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 <input checked="" type="checkbox"/> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ___ No <input checked="" type="checkbox"/>

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:	DOWNTOWN MOBIL
Operator signature:	
Title:	SENIOR GEOLOGIST
Date:	3/9/06

ATTACHMENT B
NPDES EXCLUSION PERMIT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

November 1, 2001

Timothy Petersen
Peterborough Oil Company
665 North main St.
Leominster, MA 01453

Re: NPDES Permit Exclusion for an Aquifer Pump Test at the Mobil Carwash/Retail Gasoline Station located at 243 Main Street, Athol, Massachusetts.
NPDES Permit Exclusion Reference #02-009

Dear Mr. Petersen:

Based on the information provided by Jeffrey P. Shaw of GeoInsight, Inc., you are granted, pursuant to Title 40 of the Code of Federal Regulations, Part 122.3(d), exclusion from the requirement for a permit under the National Pollutant Discharge Elimination System (NPDES), in order that the aquifer pump test, including SVE and air sparging, may begin in a timely fashion at the referenced location.

Subject to other controls that may be established by the State of Massachusetts, and the Town of Athol, you are authorized to discharge up to thirty (30) gallons per minute of treated water to the on-site storm drain which subsequently discharges to the Millers River. Prior to discharge, the contaminated water must flow through a treatment system consisting of a groundwater depression leading to a fractionation tank followed by both sediment bag and granular activated carbon filtration (sized appropriately for the anticipated flow). The discharge must be done in accordance with the following provisions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the drainage system. The discharge of a sheen of oil, or gasoline, constitutes an oil spill and must be reported, immediately, to the National Response Center (NRC) at (800) 424-8802.
2. Security provisions are maintained to assure that system failure, vandalism, or other incident will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the stormwater drainage system.
3. Sampling and analysis, in accordance with EPA Methods, must be performed for the following chemicals with the listed limits being applicable:

Total Petroleum Hydrocarbons (TPH)
Methyl Tertiary Butyl Ether (MTBE)

5 mg/L
70 µg/L

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)

Benzene	5 µg/L
Toluene	*
Ethyl Benzene	*
Xylenes	*
Total Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	<u>100 µg/L</u>

The above standards are based upon submitted contaminant information. Should sampling indicate the presence of additional contaminants, those new contaminant levels should not exceed the Federal Drinking Water Standards or 100 µg/L, whichever is lower, in the effluent.

Solids - These waters shall be free from floating, suspended, and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom.

Color and Turbidity - These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable conditions or that would impair the use assigned to this class.

Laboratory samples must be obtained from the influent to treatment, and from the effluent to the storm drainage system once each day for the first, third, and fifth day of discharge. These samples must be analyzed with a 24-hour turnaround time and reviewed immediately by GeoInsight, Inc.

If analysis indicates that the effluent limits have been exceeded, then the system must be shut down immediately and the problem corrected. Upon restarting the system, a sample must be taken and there must be 24-hour turnaround for the results. If the analysis indicates that the problem has been corrected, then the sampling schedule shall resume. If not, then the system shall be shut down again and repaired.

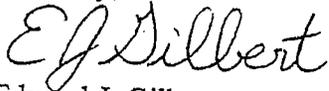
Analytical reports, with quality control information, are to be reported to the MA DEP Project Manager, and to the undersigned NPDES permit exclusion writer of this office, by the 28th of the following month, using the NPDES exclusion reference number assigned above.

4. You, or your representative, provide 24 hours notice of the anticipated start-up of discharge, if start-up begins after November 5, 2001
5. You, or your contractor, maintain copies of all analytical reports, and quality control information for a period of three (3) years from the date of the report.

The purpose of this exclusion from the regulations is for temporary discharge to a surface waterway and will be in effect for five (5) days from system start-up. This exclusion may be adjusted verbally if operational conditions require (i.e., equipment failure or weather).

If any questions should arise, please do not hesitate to contact me at (617) 918-1456.

Sincerely,



Edward J. Gilbert
On-Scene Coordinator
Emergency Response Section (HBR)

cc: D. Corb
B. Kubit
Data Base Unit
J. Shaw

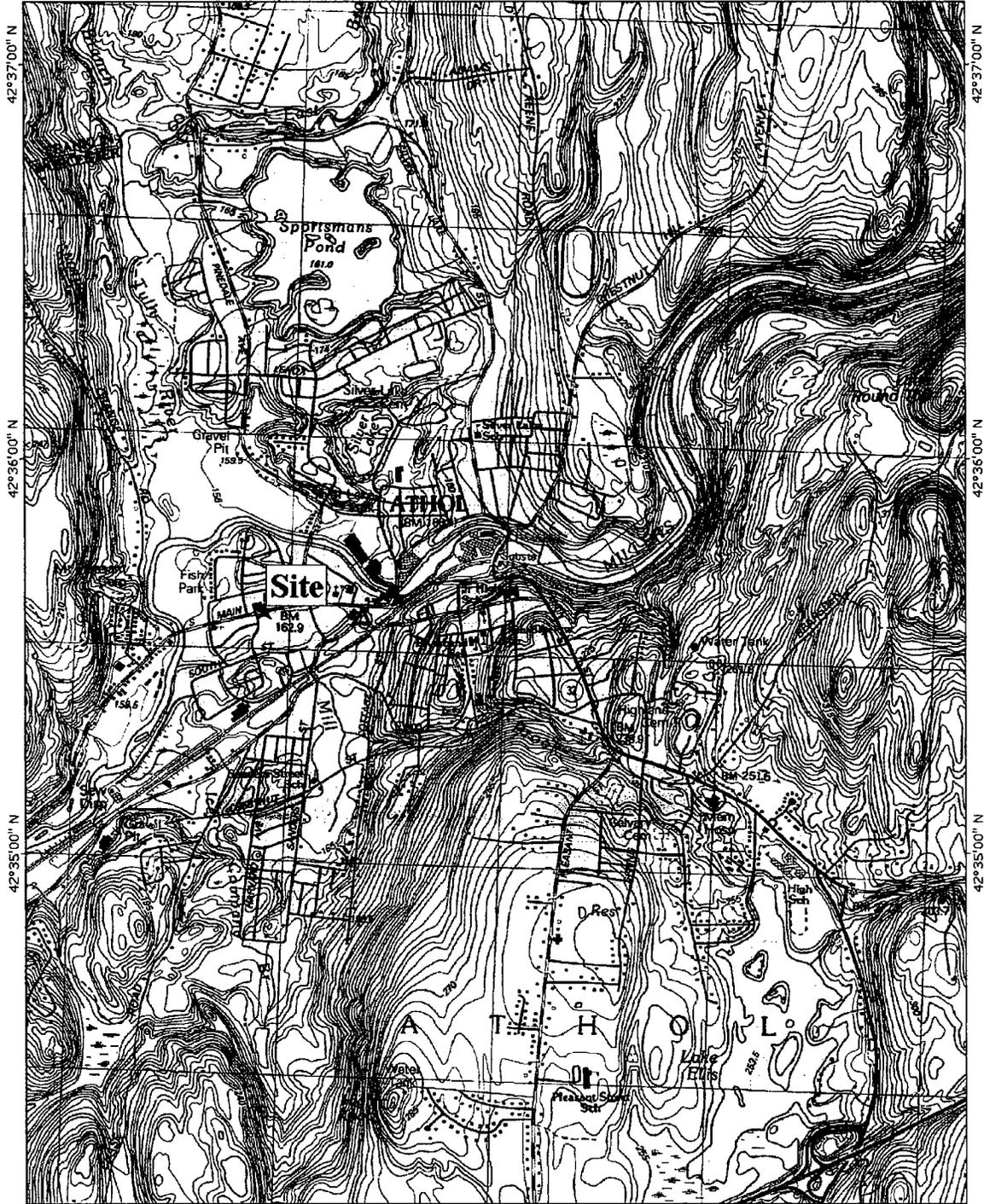
EPA - MA Permits
MA DEP - OWM
MA DEP - Central Region
GeoInsight, Inc.

ATTACHMENT C

**AS-BUILT PIPING AND INSTRUMENTATION DIAGRAM
DISCHARGE POINT AND RECEIVING WATERS FIGURES**

TOPO! map printed on 04/09/03 from "BOSTON.tpo" and "Untitled.tpg"
 72°14'00" W 72°13'00" W

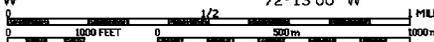
WGS84 72°12'00" W



72°14'00" W

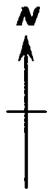
72°13'00" W

WGS84 72°12'00" W



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

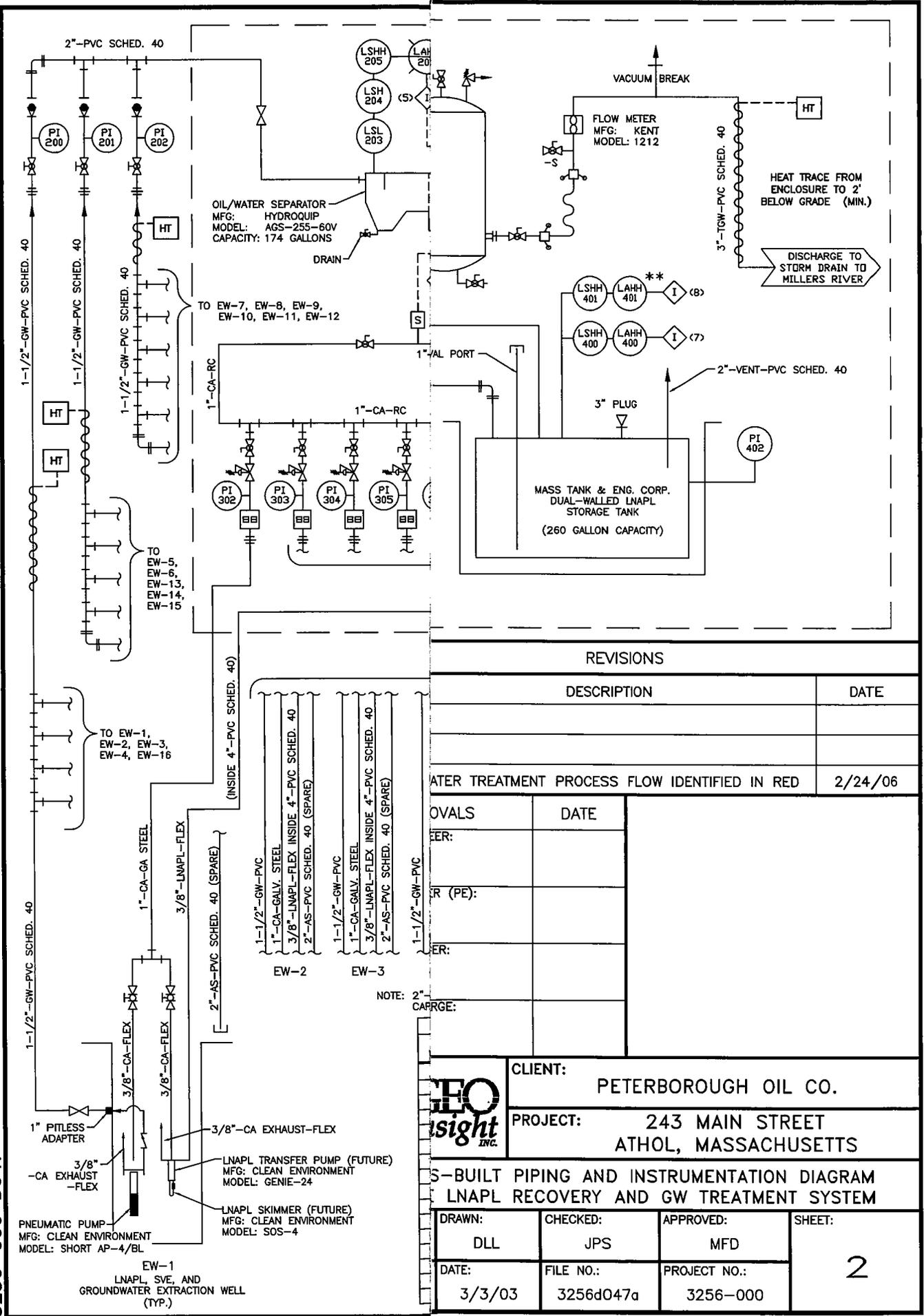
SOURCE:
 USGS ATHOL L, MA QUADRANGLE



CLIENT:
 Peterborough Oil Co., Inc.
 PROJECT:
 243 Main Street
 Athol, MA

SITE LOCUS

DESIGNED: DMD	DRAWN: DMD	CHECKED: JPS	APPROVED: MFD	FIGURE: 1
SCALE: AS SHOWN	DATE: 04/09/03	FILE NO.: 3256F1	PROJECT NO.: 3256-000	



REVISIONS

DESCRIPTION	DATE
WATER TREATMENT PROCESS FLOW IDENTIFIED IN RED	2/24/06

NO.	DESCRIPTION	DATE

CLIENT: PETERBOROUGH OIL CO.
 PROJECT: 243 MAIN STREET
 ATHOL, MASSACHUSETTS

S-BUILT PIPING AND INSTRUMENTATION DIAGRAM
 LNAPL RECOVERY AND GW TREATMENT SYSTEM

DRAWN: DLL	CHECKED: JPS	APPROVED: MFD	SHEET: 2
DATE: 3/3/03	FILE NO.: 3256d047a	PROJECT NO.: 3256-000	

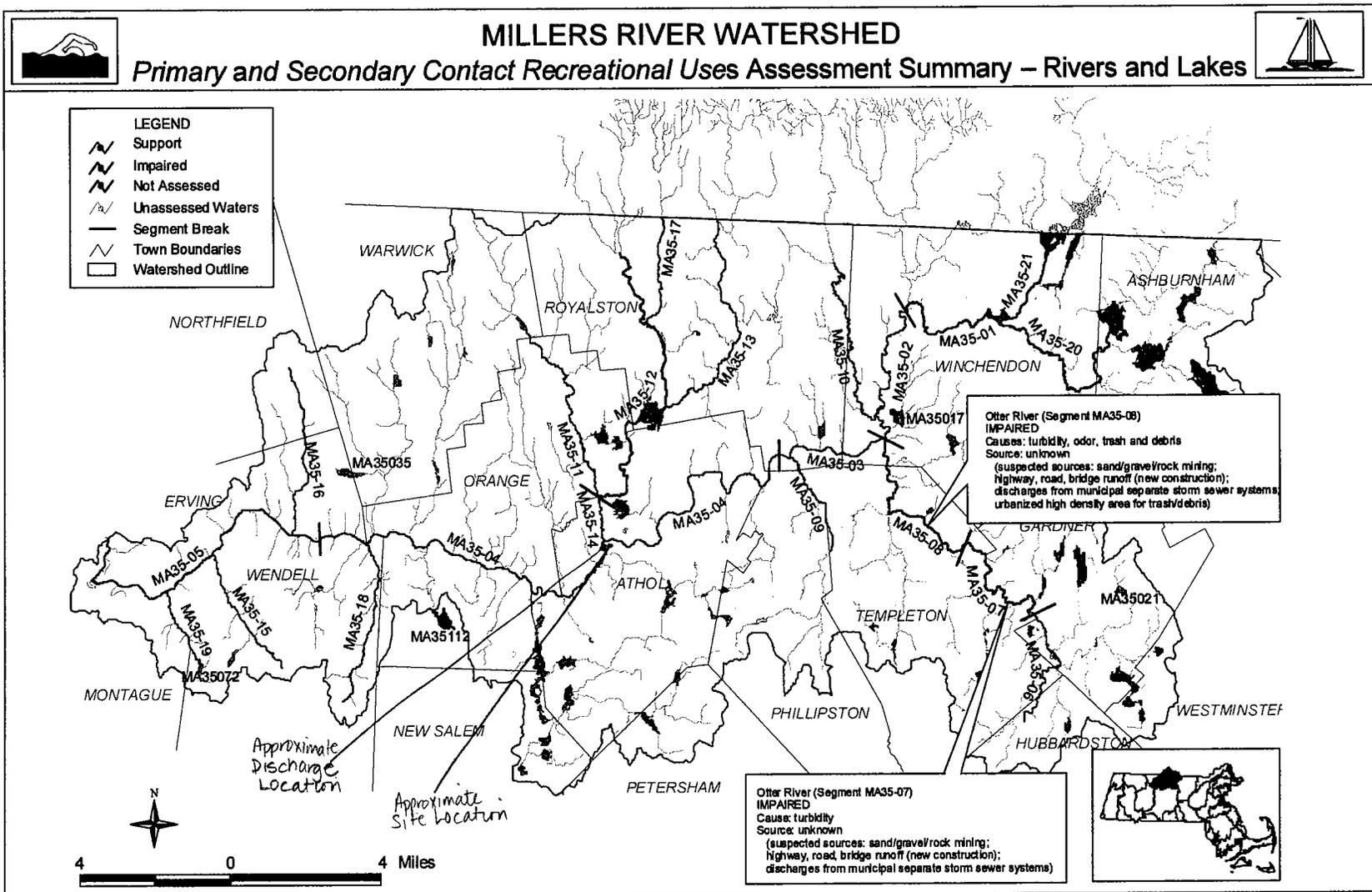


Figure 3. Millers River Watershed Primary and Secondary Contact Recreational Uses Assessment Summary – Rivers and Lakes

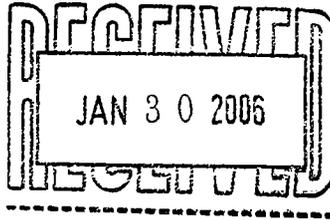
ATTACHMENT D

SUMMARY OF AQUEOUS PHASE ANALYTICAL RESULTS

Laboratory Report

Jeff Lacroix
Geolnsight, Inc.
25 Sundial Avenue
Suite 515 West
Manchester, NH 03103

PO Number: None
LabID: 9778
Date Received: 1/11/06



Project: 3256-000 POC-Athol

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Resource Laboratories, LLC Quality Assurance Plan. The Standard Operating Procedures (SOP) are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies.

Resource Laboratories, LLC maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Resource Laboratories, LLC

A handwritten signature in dark ink, appearing to read "Susan Sylvester", written over a horizontal line.

Susan Sylvester
Principal, General Manager

1-20-06

Date

Total number of pages

7

Resource Laboratories, LLC Certifications

New Hampshire NH902
Maine NH903

Connecticut PH-0146
Massachusetts M-NH902

Lab Number: 9778-01
 Sample Designation: Influent
 Date Sampled: 1/10/06
 Date Analyzed: 1/19/06
 Matrix: Water
 Instrument Dilution Factor: 1
 Analyst: LMM

VOLATILE ORGANICS
 EPA Method 524.2

	Concentration	Quantitation Limit		Concentration	Quantitation Limit
	ug/L	ug/L		ug/L	ug/L
dichlorodifluoromethane	U	0.5	trans-1,3-dichloropropene	U	0.5
chloromethane	U	0.5	2-hexanone	U	10
vinyl chloride	U	0.5	1,1,2-trichloroethane	U	0.5
bromomethane	U	0.5	1,3-dichloropropane	U	0.5
chloroethane	U	0.5	tetrachloroethene	U	0.5
trichlorofluoromethane	U	0.5	dibromochloromethane	U	0.5
diethyl ether	U	10	1,2-dibromoethane (EDB)	1.5	0.5
acetone	U	10	chlorobenzene	U	0.5
1,1-dichloroethene	U	0.5	1,1,1,2-tetrachloroethane	U	0.5
methylene chloride	U	0.5	ethylbenzene	N/A	N/A
carbon disulfide	U	0.5	m&p-xylenes	N/A	N/A
methyl t-butyl ether (MTBE)	36	0.5	o-xylene	N/A	N/A
trans-1,2-dichloroethene	U	0.5	styrene	N/A	N/A
isopropyl ether (DIPE)	U	0.5	bromoform	U	0.5
ethyl t-butyl ether (ETBE)	U	0.5	isopropylbenzene	37	0.5
1,1-dichloroethane	U	0.5	1,1,2,2-tetrachloroethane	U	0.5
t-butanol (TBA)	U	20	1,2,3-trichloropropane	U	0.5
2-butanone (MEK)	U	10	n-propylbenzene	77 E	0.5
2,2-dichloropropane	U	0.5	bromobenzene	U	0.5
cis-1,2-dichloroethene	U	0.5	1,3,5-trimethylbenzene	240 E	0.5
chloroform	U	0.5	2-chlorotoluene	U	0.5
bromochloromethane	U	0.5	4-chlorotoluene	U	0.5
tetrahydrofuran (THF)	U	10	tert-butylbenzene	U	0.5
1,1,1-trichloroethane	U	0.5	1,2,4-trimethylbenzene	N/A	N/A
1,1-dichloropropene	U	0.5	sec-butylbenzene	6.2	0.5
t-amyl-methyl ether (TAME)	U	0.5	1,3-dichlorobenzene	U	0.5
carbon tetrachloride	U	0.5	4-isopropyltoluene	4.9	0.5
1,2-dichloroethane	U	0.5	1,4-dichlorobenzene	U	0.5
benzene	130 E	0.5	1,2-dichlorobenzene	U	0.5
trichloroethene	U	0.5	n-butylbenzene	U	0.5
1,2-dichloropropane	U	0.5	1,2-dibromo-3-chloropropane	U	0.5
bromodichloromethane	U	0.5	1,2,4-trichlorobenzene	U	0.5
dibromomethane	U	0.5	hexachlorobutadiene	U	0.5
4-methyl-2-pentanone (MIBK)	U	10	naphthalene	220 E	0.5
cis-1,3-dichloropropene	U	0.5	1,2,3-trichlorobenzene	U	0.5
toluene	N/A	N/A	1,4-dioxane	U	50

SURROGATE STANDARDS	Recovery (%)	Acceptance Limits (%)
4-bromofluorobenzene	125	70-130
1,4-dichlorobenzene-D4	146 #	70-130

U = Below quantitation limit

E = The analytical result was outside of the instrument calibration range. The reported result is an estimate.

N/A = Data not acquired due to excessive concentration of an analyte at this retention time.

= The surrogate showed recovery outside the acceptance limits, as a result of sample matrix interference.

Lab Number: 9778-01
 Sample Designation: Influent
 Date Sampled: 1/10/06
 Date Analyzed: 1/12/06
 Matrix: Water
 Instrument Dilution Factor: 5
 Analyst: LMM

VOLATILE ORGANICS
 EPA Method 624

	Concentration	Quantitation Limit		Concentration	Quantitation Limit
	ug/L	ug/L		ug/L	ug/L
dichlorodifluoromethane	U	10	trans-1,3-dichloropropene	U	10
chloromethane	U	10	2-hexanone	U	50
vinyl chloride	U	10	1,1,2-trichloroethane	U	10
bromomethane	U	10	1,3-dichloropropane	U	10
chloroethane	U	10	tetrachloroethene	U	10
trichlorofluoromethane	U	10	dibromochloromethane	U	10
diethyl ether	U	50	1,2-dibromoethane	U	10
acetone	U	50	chlorobenzene	U	10
1,1-dichloroethene	U	5	1,1,1,2-tetrachloroethane	U	10
methylene chloride	U	30	ethylbenzene	440	10
carbon disulfide	U	10	m&p-xylenes	2300	10
methyl t-butyl ether (MTBE)	50	10	o-xylene	1000	10
trans-1,2-dichloroethene	U	10	styrene	U	10
isopropyl ether (DIPE)	U	10	bromoform	U	10
ethyl t-butyl ether (ETBE)	U	10	isopropylbenzene	32	10
1,1-dichloroethane	U	10	1,1,2,2-tetrachloroethane	U	10
t-butanol (TBA)	U	300	1,2,3-trichloropropane	U	10
2-butanone (MEK)	U	50	n-propylbenzene	72	10
2,2-dichloropropane	U	10	bromobenzene	U	10
cis-1,2-dichloroethene	U	10	1,3,5-trimethylbenzene	310	10
chloroform	U	10	2-chlorotoluene	U	10
bromochloromethane	U	10	4-chlorotoluene	U	10
tetrahydrofuran (THF)	U	50	tert-butylbenzene	U	10
1,1,1-trichloroethane	U	10	1,2,4-trimethylbenzene	970	10
1,1-dichloropropene	U	10	sec-butylbenzene	U	10
t-amyl-methyl ether (TAME)	U	10	1,3-dichlorobenzene	U	10
carbon tetrachloride	U	10	4-isopropyltoluene	U	10
1,2-dichloroethane	U	10	1,4-dichlorobenzene	U	10
benzene	130	10	1,2-dichlorobenzene	U	10
trichloroethene	U	10	n-butylbenzene	U	10
1,2-dichloropropane	U	10	1,2-dibromo-3-chloropropane	U	10
bromodichloromethane	U	10	1,2,4-trichlorobenzene	U	10
dibromomethane	U	10	hexachlorobutadiene	U	10
4-methyl-2-pentanone (MIBK)	U	50	naphthalene	180	30
cis-1,3-dichloropropene	U	10	1,2,3-trichlorobenzene	U	10
toluene	2000	10	1,4-dioxane	U	300

SURROGATE STANDARDS	Recovery (%)	Acceptance Limits (%)
dibromofluoromethane	91	78-114
toluene-D8	91	88-110
4-bromofluorobenzene	91	86-115

U = Below quantitation limit

Lab Number: 9778-01
 Sample Designation: Influent
 Date Sampled: 1/10/06
 Date Extracted: 1/16/06
 Date Analyzed: 1/18/06
 Matrix: Water
 Dilution Factor: 1
 Analyst: AJD

SEMIVOLATILE ORGANICS
 SW 846 Method 3510C/8270C.

	Concentration	Quantitation Limit		Concentration	Quantitation Limit
	ug/L	ug/L		ug/L	ug/L
N-nitrosodimethylamine	U	2	2,4-dinitrotoluene	U	2
aniline	U	2	acenaphthene	U	0.5
phenol	U	2	3-nitroaniline	U	2
2-chlorophenol	U	5	2,4-dinitrophenol	U	50
bis-(2-chloroethyl)ether	U	2	dibenzofuran	U	0.5
1,3-dichlorobenzene	U	2	4-nitrophenol	U	20
1,4-dichlorobenzene	U	2	fluorene	U	0.5
1,2-dichlorobenzene	U	2	diethyl phthalate	U	5
benzyl alcohol	U	2	4-chlorophenyl phenyl ether	U	5
2-methylphenol (o-cresol)	7.9	2	4-nitroaniline	U	5
bis(2-chloroisopropyl)ether	U	2	4,6-dinitro-2-methylphenol	U	20
hexachloroethane	U	2	azobenzene	U	2
N-nitroso-di-n-propylamine	U	2	N-nitrosodiphenylamine	U	2
4-methylphenol (p-cresol)	6.7	2	4-bromophenyl phenylether	U	2
nitrobenzene	U	2	hexachlorobenzene	U	2
isophorone	U	5	pentachlorophenol	U	5
2-nitrophenol	U	2	phenanthrene	U	0.5
2,4-dimethylphenol	6.2	2	anthracene	U	0.5
bis(2-chloroethoxy)methane	U	5	carbazole	U	2
2,4-dichlorophenol	U	5	di-n-butyl phthalate	U	5
1,2,4-trichlorobenzene	U	5	fluoranthene	U	0.5
naphthalene	98	0.5	benzidine	U	30
benzoic acid	U	50	pyrene	U	0.5
4-chloroaniline	U	2	butyl benzyl phthalate	U	5
hexachloro-1,3-butadiene	U	2	benzo(a)anthracene	U	0.5
4-chloro-3-methylphenol	U	2	chrysene	U	0.5
2-methylnaphthalene	31	2	3,3'-dichlorobenzidine	U	30
hexachlorocyclopentadiene	U	10	bis-2-ethylhexyl phthalate	U	5
2,4,6-trichlorophenol	U	2	di-n-octyl phthalate	U	2
2,4,5-trichlorophenol	U	2	benzo(b)fluoranthene	U	0.5
2-chloronaphthalene	U	5	benzo(k)fluoranthene	U	0.5
2-nitroaniline	U	2	benzo(a)pyrene	U	0.2
acenaphthylene	U	0.5	indeno(1,2,3-cd)pyrene	U	0.5
dimethyl phthalate	U	5	dibenz(a,h)anthracene	U	0.5
2,6-dinitrotoluene	U	2	benzo(g,h,i)perylene	U	0.5
SURROGATE STANDARDS					
	Recovery (%)	Acceptance Limits (%)		Recovery (%)	Acceptance Limits (%)
2-fluorophenol	16 #	21-100	nitrobenzene D5	65	35-114
phenol D5	12	10-102	2-fluorobiphenyl	72	43-116
2,4,6-tribromophenol	87	10-123	terphenyl D14	69	33-141

U = Below quantitation limit

Lab Number: 9778-01
Sample Designation: Influent
Date Sampled: 1/10/06
Date Extracted: 1/16/06
Date Analyzed: 1/17/06
Matrix: Water
Dilution Factor: 1
Analyst: AJD

POLYCHLORINATED BIPHENYLS
SW 846 Method 3510C/8082A.

	Concentration	Quantitation Limit
	ug/L	ug/L
PCB-1016	U	0.2
PCB-1242	U	0.2
PCB-1221	U	0.2
PCB-1232	U	0.2
PCB-1248	U	0.2
PCB-1254	U	0.2
PCB-1260	U	0.2

SURROGATE STANDARDS	Recovery	Acceptance Limits
	(%)	(%)
Tetrachloro-m-xylene	30	30-150
Decachlorobiphenyl	48	30-150

U = Below quantitation limit

Project ID: POC-Athol 3256-000

Lab ID: 9778

Lab Number: 9778-001

Sample ID: Influent

Matrix: Water

Sampled: 1/10/06 12:45

Parameter:	Result	Quant Limit	Units	Instr Dll'n Factor	Analyst	Prep Date	Analysis Date	Analysis Time	Reference
Chromium, Hexavalent	< 0.01	0.01	mg/L	1	APA	1/12/06	1/12/06	N/A	SM3500CrD
Cyanide, total	< 0.01	0.01	mg/L	1	APA	1/13/06	1/13/06	N/A	E335.2
Oil and Grease	< 5	5	mg/L	1	TLR	N/A	1/13/06	N/A	E1664A
Total Suspended Solids (TSS)	6	5	mg/L	1	APA	N/A	1/13/06	N/A	E160.2
Residual Chlorine	0.11 # S		mg/L	1	HM	N/A	1/11/06	15:25	SM4500CIG

S = Results for Residual Chlorine were provided by Granite State Analytical of Derry, NH
Spike result outside control limits

Antimony	0.001	0.001	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Arsenic	< 0.005	0.005	mg/L	1	BJS	1/12/06	1/12/06	15:19	SW6010B
Cadmium	0.0004	0.0002	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Chromium	< 0.01	0.01	mg/L	1	BJS	1/12/06	1/12/06	15:19	SW6010B
Copper	0.016	0.005	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Iron	9.4	0.05	mg/L	1	BJS	1/12/06	1/12/06	15:19	SW6010B
Lead	0.06	0.01	mg/L	1	BJS	1/12/06	1/12/06	15:19	SW6010B
Mercury	< 0.0009	0.0009	mg/L	1	BJS	1/12/06	1/12/06	N/A	SW7470A
Nickel	0.003	0.001	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Selenium	0.001	0.001	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Silver	< 0.001	0.001	mg/L	1	BJS	1/12/06	1/12/06	16:56	SW6010B
Zinc	0.05	0.01	mg/L	1	BJS	1/12/06	1/12/06	15:19	SW6010B

RL Resource Laboratories, LLC
 124 Heritage Avenue • Portsmouth, NH 03801
 Phone: 603-436-2001 • Fax: 603-430-2100

**CHAIN-OF-CUSTODY RECORD
 AND ANALYSIS REQUEST**

9778

ANALYSIS REQUEST

Company Name: GeoInsight Phone #: 603 314 0820
 Company Address: 25 Sundial Ave, Suite 515W Site Location (City, State): Attlee, MA
 Project Manager: JEFF LACROIX Project ID / Name: POC Attlee / 3256
 Invoice To: Protocol: RCRA SDWA NPDES
 MCP NHDES OTHER

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix			Preservation Method					Sampling			
			WATER	SOLID	OTHER	HCl	HNO ₃	H ₂ SO ₄	ICE	MeOH	OTHER (Specify)	DATE	TIME	SAMPLER
9778-01	Influent	10	X			X	X				X	1/10/05	12:45	AJ

VOC-NH Petroleum Remediation Short List
 VOC-NH Hazardous Waste Remediation Short List
 VOC-NH Petroleum & Haz Waste Full List MADEP VPH MEGRO
 VOC 8260 VOC9015GRO VOC 824
 VOC 8260 BTEX, MIBE, Naphthalene only VOC 8260 + Oxygenates
 VOC 524.2 VOC 524.2 NH Petroleum & Haz. Waste Full List **(EDS)**
 TPH 8100 MEDRO DRO 8015 EPH
 8270PAH 8270MBN 825
 8082 PCS 8081 Pesticides 808
 D&G 1004 D&G SM5520F
 pH ROD Conductivity
 TSS TDS TS
 RCRA Metals Priority Pollutant Metals TAL Metals **6010 B**
 Total Metals-list Dissolved Metals-list
 Ammonia COD
 I-Phosphate Phosol (subcontract)
 Cyanide Sulfide
 Nitrate Nitrite Ortho P Sulfate Bromide Chloride
 Corrosivity Reactive CN Reactive S Ignitability/PP
 TCLP Metals TCLP VOC TCLP SVOC
 TCLP Pesticide TCLP Herbicides (subcontract)
 Mercury **7470A**
 Cr 6 / Cr 3+
 Residual Chlorine
 Grab (G) or Composite (C)

TAT REQUESTED
 Priority (24 hr)
 Expedited (48 hr)
 10 Business Days
 Other

E-Mail Address _____
 Quote # _____
 PO # _____

SPECIAL INSTRUCTIONS
 EPA not detection limits & compounds (per previous discussion w/ RL).
 Please reference GeoInsight fax and quote 5387.
 POC pricing. Call Claire Lund with questions.

REPORTING INSTRUCTIONS
 FAX EDD OTHER (specify) _____

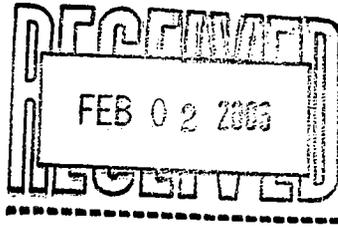
RECEIVED ON ICE YES NO
 TEMPERATURE 6 °C

Lab Use Only

CUSTODY RECORD	Relinquished by Sampler: <u>Clare Holland (to AJ)</u>	Date: <u>1/10/05</u> Time: <u>16:45</u>	Received by: <u>Cold Storage</u>	Date: <u>1/10/05</u> Time: <u>16:45</u>
	Relinquished by: <u>[Signature]</u>	Date: <u>1/11/06</u> Time: <u>11:20</u>	Received by:	Date: _____ Time: _____
	Relinquished by:	Date: _____ Time: _____	Received by Laboratory: Way Bill#: <u>[Signature]</u>	Date: <u>1/11/06</u> Time: <u>11:20</u>

Laboratory Report

Jeff Lacroix
Geolnsight, Inc.
25 Sundial Avenue
Suite 515 West
Manchester, NH 03103



PO Number: None
LabID: 9778
Date Received: 1/11/06

Project: 3256-000 POC-Athol

Attached please find results for the analysis of the samples received on the date referenced above.

Attached please find the VOC results for sample 9778-01. The quantitation limits have been reviewed as requested.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Resource Laboratories, LLC Quality Assurance Plan. The Standard Operating Procedures (SOP) are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies.

Resource Laboratories, LLC maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Resource Laboratories, LLC

A handwritten signature in black ink, appearing to read "Susan Sylvester".

Susan Sylvester
Principal, General Manager

2-1-06

Date

2

Total number of pages

Resource Laboratories, LLC Certifications

New Hampshire NH902
Maine NH903

Connecticut PH-0146
Massachusetts M-NH902

Lab Number: 9778-01
 Sample Designation: Influent
 Date Sampled: 1/10/06
 Date Analyzed: 1/12/06
 Matrix: Water
 Instrument Dilution Factor: 5
 Analyst: LMM

VOLATILE ORGANICS
 EPA Method 624

	Concentration	Quantitation Limit		Concentration	Quantitation Limit
	ug/L	ug/L		ug/L	ug/L
dichlorodifluoromethane	U	10	trans-1,3-dichloropropene	U	10
chloromethane	U	10	2-hexanone	U	50
vinyl chloride	U	0.5 *	1,1,2-trichloroethane	U	0.5 *
bromomethane	U	10	1,3-dichloropropane	U	10
chloroethane	U	10	tetrachloroethene	U	0.5 *
trichlorofluoromethane	U	10	dibromochloromethane	U	10
diethyl ether	U	50	1,2-dibromoethane	1.5	0.5 *
acetone	U	50	chlorobenzene	U	10
1,1-dichloroethene	U	0.5 *	1,1,1,2-tetrachloroethane	U	10
methylene chloride	U	0.5 *	ethylbenzene	440	10
carbon disulfide	U	10	m&p-xylenes	2300	10
methyl t-butyl ether (MTBE)	50	10	o-xylene	1000	10
trans-1,2-dichloroethene	U	10	styrene	U	10
isopropyl ether (DIPE)	U	10	bromoform	U	10
ethyl t-butyl ether (ETBE)	U	10	isopropylbenzene	32	10
1,1-dichloroethane	U	0.5 *	1,1,2,2-tetrachloroethane	U	10
t-butanol (TBA)	U	20 *	1,2,3-trichloropropane	U	10
2-butanone (MEK)	U	50	n-propylbenzene	72	10
2,2-dichloropropane	U	10	bromobenzene	U	10
cis-1,2-dichloroethene	U	0.5 *	1,3,5-trimethylbenzene	310	10
chloroform	U	10	2-chlorotoluene	U	10
bromochloromethane	U	10	4-chlorotoluene	U	10
tetrahydrofuran (THF)	U	50	tert-butylbenzene	U	10
1,1,1-trichloroethane	U	0.5 *	1,2,4-trimethylbenzene	970	10
1,1-dichloropropene	U	10	sec-butylbenzene	6.2	0.5*
t-amyl-methyl ether (TAME)	U	2 *	1,3-dichlorobenzene	U	0.5 *
carbon tetrachloride	U	0.5 *	4-isopropyltoluene	4.9	0.5 *
1,2-dichloroethane	U	0.5 *	1,4-dichlorobenzene	U	0.5 *
benzene	130	10	1,2-dichlorobenzene	U	0.5 *
trichloroethene	U	0.5 *	n-butylbenzene	U	10
1,2-dichloropropane	U	10	1,2-dibromo-3-chloropropane	U	10
bromodichloromethane	U	10	1,2,4-trichlorobenzene	U	10
dibromomethane	U	10	hexachlorobutadiene	U	10
4-methyl-2-pentanone (MIBK)	U	50	naphthalene	180	30
cis-1,3-dichloropropene	U	10	1,2,3-trichlorobenzene	U	10
toluene	2000	10	1,4-dioxane	U	50 *

SURROGATE STANDARDS	Recovery (%)	Acceptance Limits (%)
dibromofluoromethane	91	78-114
toluene-D8	91	88-110
4-bromofluorobenzene	91	86-115

*- Sample analyzed by method 524.2 to achieve the required reporting limits.
 U = Below quantitation limit

Laboratory Report

Jeff LaCroix
GeoInsight, Inc.
25 Sundial Avenue
Suite 515 West
Manchester, NH 03103

PO Number: None
LabID: 9778
Date Received: 1/11/06

Project: 3256-000 POC-Athol

Attached please find results for the analysis of the samples received on the date referenced above.

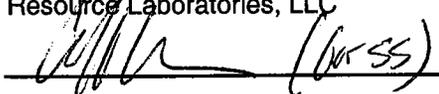
Attached please find a case narrative discussing the differences between several analytical methods.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Resource Laboratories, LLC Quality Assurance Plan. The Standard Operating Procedures (SOP) are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies.

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Sincerely,
Resource Laboratories, LLC



Susan Sylvester
Principal, General Manager

2/27/06

Date

Total number of pages

2

Resource Laboratories, LLC Certifications

New Hampshire NH902
Maine NH903

Connecticut PH-0146
Massachusetts M-NH902

RESOURCE LABORATORIES, LLC.

Method Narrative
Lab # POC Athol

The following information is provided in response to your request for a discussion of the differences between analytical methods.

1. Methods PCB 608 and PCB 8082
 - a. The calibration criteria differs between these methods. Method 8082 requires a minimum of five points for calibration and Method 608 requires a three point calibration.
 - b. The quality control acceptance criteria for Method 8082 Laboratory Control Sample is more stringent than Method 608.
 - c. Method 608 includes the extraction method and requires three extractions with 60mLs methylene chloride. Method 8082 refers to acceptable extraction method that may be used for the analysis of PCB and allows the laboratory to chose one of the acceptable methods. The extraction methods used for Method 8082 allow for method modifications, as long as the method acceptance criteria are met. One of the differences between the extraction methods used is the extraction solvent volume. For Method 8082 extractions, solvent volumes of 30ml, 20ml and 20ml are used.

2. Methods 3510C and 3520C
 - a. Extraction method 3510C is a separatory funnel liquid-liquid extraction.
 - b. Extraction method 3520C is a continuous liquid-liquid extraction.

3. Method 8270C and 8270D
 - a. Methods 8270C is dated 1996 and Method 8270D is dated 1998. The newer version, 8270D was updated to add more compounds to the list of those that can be determined by this method.
 - b. Method 8270D also includes some guidance on the analysis of samples that exceed the calibration range of the instrument (Section 7.5.4.1 and 7.5.4.2). It specifically says that when the detector is saturated that the instrument must be demonstrated to be clean prior to future sample analysis. Although this was not as specific in the previous method, this is a standard practice .
 - c. Method 8270D included precision and accuracy data for the use of the solid phase extraction method on TCLP leachates.



Resource Laboratories, LLC
124 Heritage Avenue
Portsmouth, NH 03801

Voice: 603-436-2001
Fax: 603-430-2100

CHAIN OF CUSTODY DOCUMENTATION

Client: GeoInsight, Inc.		Contact: Jeff LaCroix		Project: POC-Athol		Page	of		
Report to: GeoInsight, Inc.		Address: 25 Sundial Ave.		Suite 515W, Manchester		Phone:	603-314-0820		
Invoice To: Peterborough Oil Co.		Address: PO Box 787, Leominster, MA				Fax:	603-314-0821		
Protocol: (please circle applicable RCRA SDWA <u>NPDES</u> Other: 3256-000						P.O. #	Quote #		
Lab Number: (assigned by laboratory)	Your Field ID: must agree with container	Date Sampled	Time Sampled	Sampled By	Container Size (mL)	Container Type (P/G/T)	Field Preser- vation	Matrix S=Soil W=Water	Analyses Requested: Special Instructions:
	Influent	2-13-06	16:00	aj	2*40 ml	G	HCl	W=Water	BTEX,MTBE Napthalene 8260B
	Influent				2*40 ml	G	HCl	W=Water	GRO
	Influent		16:00		250ml	P	None	W=Water	TSS
	Midpoint		15:45		2*40 ml	G	HCl	W=Water	BTEX,MTBE Napthalene 8260B
	Midpoint		15:45		2*40 ml	G	HCl	W=Water	GRO
	Effluent		15:30		2*40 ml	G	HCl	W=Water	BTEX,MTBE Napthalene 8260B
	Effluent				2*40 ml	G	HCl	W=Water	GRO
	Effluent	2-13-06	15:30	aj	250ml	P	None	W=Water	TSS
	Trip Blk	-	-	-	40 ml	G	HCl	W=Water	BTEX,MTBE Napthalene 8260B
	Effluent	2-13-06	15:30	aj	250ml	P	HNO3	W	Total Iron
Relinquished by: <i>Anthony Jones</i> Date: 2-14-06 Time: 06:00					Received by: <i>Cold Storage</i> Date: 2-14-06 Time: 08:00				
Relinquished by: _____ Date: _____ Time: _____					Received by: _____ Date: _____ Time: _____				
Relinquished by: <i>Anthony Jones</i> Date: 2/15/06 Time: 1300					Received by: <i>Anthony Jones</i> Date: 2/15/06 Time: 13:00				

Comments: POC -Downtown Mobil Athol,MA

ATTACHMENT E
DILUTION FACTOR CALCULATIONS

DILUTION FACTOR ANALYSIS FOR METAL INFLUENT CONCENTRATIONS
NOI - RGP
MOBIL CAR WASH/RETAIL GASOLINE STATION
243 MAIN STREET
ATHOL, MASSACHUSETTS
NPDES PERMIT EXCLUSION 02-009

Metal Concentration dilution factor (DF) analysis:

$$\mathbf{DF = (Qd + Qs) / Qd}$$

where: DF = Dilution Factor
 Qd = Maximum flow rate of discharge in cubic feet per second (cfs)
 Qs = Receiving water 7Q10 flow in cfs
 7Q10 = Minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

7Q10 flow for Millers River (Segment MA35-04) is 14.2 million gallons per day (MGD), equivalent to 21.97 cfs. This information was provided in the *Millers River Watershed 2000 Water Quality Assessment Report*.

Qd = 0.0446 cfs
Qs = 21.97 cfs
DF = 493.6 cfs