



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

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

CERTIFIED MAIL

March 2, 2011

Debra Stake
Project Manager
ARCADIS U. S., Inc.
2 Executive Drive, Suite 303
Chelmsford, MA 01824

Re: Authorization to discharge under the Remediation General Permit (RGP) -
MAG910000. YRC (formerly Roadway Express) Terminal site located at 95 Concord
Street, North Reading, MA 01864, Middlesex County; Authorization #MAG910195 -
Reissuance.

Dear Ms. Stake:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Steve Shinnars
Owner of the YRC Terminal by the firm ARCADIS U.S., Inc. for the site referenced
above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the
named Operator, to discharge in accordance with the provisions of the RGP at that site.
Your authorization number is listed above.

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

Also, please note that the metals mercury, and iron included on the list are dilution
dependent pollutants and subject to limitations based on selected dilution ranges and
technology-based ceiling limitations for facilities located in Massachusetts. For each
parameter the dilution factor 12.8 for this site is within a dilution range greater than ten to
fifty (> 10 to 50), established in the RGP. (See the RGP Appendix IV for Massachusetts

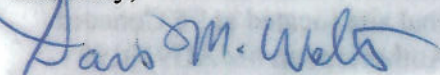
facilities). Therefore, the limits for mercury of 2.3 ug/L, and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

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

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

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

Sincerely,



David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP ✓

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

NPDES Authorization Number:		MAG910195 – Reissuance
Date Authorization Issued:	March, 2011.	
Facility/Site Name:	YRC (Formerly Roadway Express) terminal	
Facility/Site Address:	95 Concord Street, North Reading, MA 01864, Middlesex County Email address of owner: steve.shinners@yrcw.com Phone n: 913-344-3615 ;	
Legal Name of Operator:	ARCADIS U. S., Inc.	
Operator contact name, title, and Address:	Debra Stake. Project Manager, 2 Executive Drive, Suite 303 Chelmsford, MA 01824 Email: debra.stake@arcadis-us.com	
Estimated Date of Completion:	September 9, 2015	
Category and Sub-Category:	Category II- Non Petroleum Site Remediation. Sub-category B. VOC Sites with Additional Contamination	
Receiving Water:	Unnamed Brook to Ipswich River	

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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML 5ug/L
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
✓	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 5ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l /Me#8260C/ ML 10ug/L
✓	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only (ug/L)/ Me#8260C/ ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only (ug/L) /Me#8260C/ ML 10ug/L
	14. Naphthalene ⁵	20 ug/L /Me#8260C/ ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
✓	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML5ug/L, Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene ⁵	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8, 9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) ^{11/12}</u>	<u>Minimum Level = ML</u>
	39. Antimony	5.6/ML 10	
	40. Arsenic **	10/ML 20	
	41. Cadmium **	0.2/ML 10	
	42. Chromium III (trivalent) **	48.8/ML 15	

	Metal parameter	Total Recoverable Metal Limit @ H¹⁰ = 50 mg/l CaCO₃ for discharges in Massachusetts (ug/l) ^{11/12}		Minimum Level = ML	
		Freshwater			
	43. Chromium VI (hexavalent) **	11.4/ML10			
	44. Copper **	5.2/ML 15			
	45. Lead **	1.3/ML 20			
✓	46. Mercury **	2.3/ML 0.2			
	47. Nickel **	29/ML 20			
	48. Selenium **	5/ML 20			
	49. Silver	1.2/ML 10			
	50. Zinc **	66.6/ML 15			
✓	51. Iron	5,000/ML 20			

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

Footnotes:



Submitted via Electronic Mail and Federal Express

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

ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford
Massachusetts 01824
Tel 978.937.9999
Fax 978.937.7555
www.arcadis-us.com

ENVIRONMENT

Subject:
Notice of Intent – 2010 Remediation General Permit
YRC, Inc. Terminal
95 Concord Street, North Reading, Massachusetts 01864

Date:
December 9, 2010

Dear Sir/Madam:

Contact:
Debra Stake

On behalf of YRC, Inc., ARCADIS U.S., Inc is submitting the enclosed Notice of Intent (NOI) for a reapplication for coverage under the Massachusetts 2010 Remediation General Permit (RGP) for the groundwater extraction and treatment system located at the YRC (formerly known as Roadway Express) Terminal located at 95 Concord Street in North Reading, Massachusetts. The treated water is discharged into a storm water drainage system which ultimately discharges to the Ipswich River. ARCADIS is the operator for the remediation system currently covered by the 2005 RGP under NPDES Permit Number MAG910195. The remediation is being conducted in accordance with the Massachusetts Contingency Plan (MCP) under Release Tracking Notice (RTN) 3-2363.

Phone:
978-937-9999 x313

Email:
Debra.Stake@arcadis-us.com

Our ref:
MA000547.0065

Please feel free to contact us with any questions or concerns. A paper copy has also been sent via Federal Express.

Sincerely,

ARCADIS U.S., Inc.

Debra Stake, LSP
Associate Vice President/Project Manager

Copies:
Steven Shinnars, YRC, Inc.
Town of North Reading

Attachments:
Notice of Intent with Attachments

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

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

a) Name of facility/site :		Facility/site mailing address:	
Location of facility/site : longitude: _____ latitude: _____	Facility SIC code(s):	Street:	
b) Name of facility/site owner : YRC, Inc.		Town:	
Email address of facility/site owner:	State:	Zip:	County:
Telephone no. of facility/site owner :			
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:			
Town:	State:	Zip:	County:
c) Legal name of operator :	Operator telephone no:		
	Operator fax no.:		Operator email:
Operator contact name and title:			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:

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

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ____ B. Well Development/Rehabilitation at Contaminated/Formely Contaminated Sites ____ C. Hydrostatic Testing of Pipelines and Tanks ____ D. Long-Term Remediation of Contaminated Sumps and Dikes ____ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ____
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow _____ Is maximum flow a design value ? Y___ N___ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; pt.2: lat. _____ long. _____; pt.3: lat. _____ long. _____; pt.4: lat. _____ long. _____; pt.5: lat. _____ long. _____; pt.6: lat. _____ long. _____; pt.7: lat. _____ long. _____; pt.8: lat. _____ long. _____; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ___ N _____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
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.

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

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX ²	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

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

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

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

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

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) ⁴											
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

⁴The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
Other (describe):											

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

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

<i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y____ N____	If yes, which metals?
<i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Etc.	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y____ N____ If Y, list which metals:

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	GAC filter
	Chlorination	De-chlorination	Other (please describe):			

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

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

Design flow rate of treatment system _____ gpm

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

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

a) Identify the discharge pathway:	Direct to receiving water _____	Within facility (sewer) _____	Storm drain _____	Wetlands _____	Other (describe): _____
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:					
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.					
d) Provide the state water quality classification of the receiving water _____					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs Please attach any calculation sheets used to support stream flow and dilution calculations.					
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y____ N____ If yes, for which pollutant(s)? flow alteration, metals, nutrients, organic enrichment/low DO _____					
Is there a final TMDL? Y____ N____ If yes, for which pollutant(s)? _____					

6. ESA and NHPA Eligibility.

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

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

7. Supplemental information.

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

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:	YRC (formerly Roadway Express) Terminal
Operator signature:	
Printed Name & Title:	Debra Stake, Project Manager (ARCADIS)
Date:	December 8, 2010

Section 1 (g) ACEC

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

Canoe River Aquifer and Associated Areas (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

Golden Hills

(500 acres, 1987) Melrose, Saugus, and Wakefield

Great Marsh (originally designated as Parker River/Essex Bay)

(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

Hockomock Swamp

(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

Inner Cape Cod Bay

(2,600 acres, 1985) Brewster, Eastham, and Orleans

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

(7,000 acres, 1992) Egremont and Mount Washington

Miscoe, Warren, and Whitehall Watersheds

(8,700 acres, 2000) Grafton, Hopkinton, and Upton

Neponset River Estuary

(1,300 acres, 1995) Boston, Milton, and Quincy

Petapawag

(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

Pleasant Bay

(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

(13,750 acres, 1990) Mount Washington and Sheffield

Squannassit

(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

Three Mile River Watershed

(14,280 acres, 2008) Dighton, Norton, Taunton

Upper Housatonic River

(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

(950 acres, 1986) Cohasset, Hingham, and Hull

Wellfleet Harbor

(12,480 acres, 1989) Eastham, Truro, and Wellfleet

Weymouth Back River

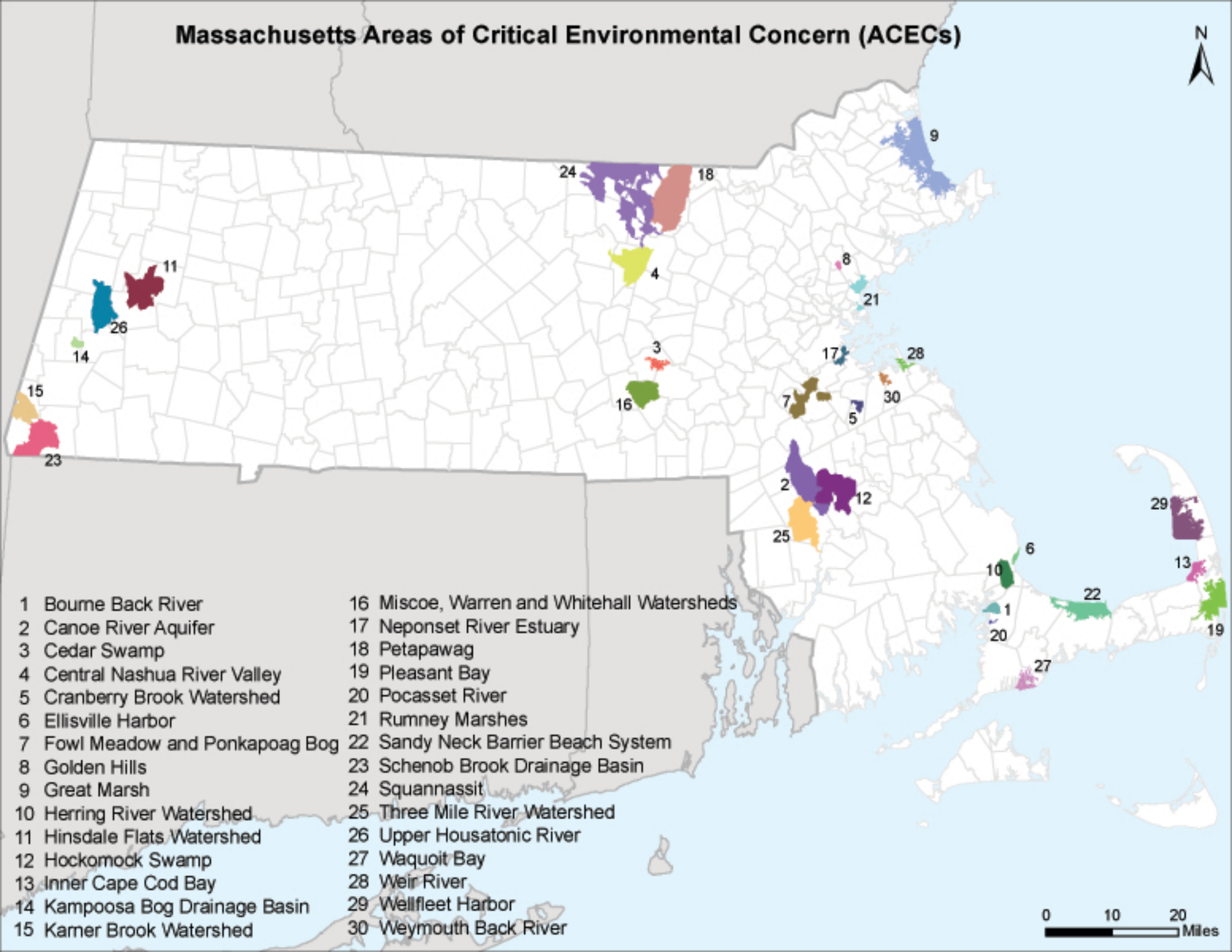
(800 acres, 1982) Hingham and Weymouth

Towns with ACECs within their Boundaries

November 2010

TOWN	ACEC	TOWN	ACEC
Ashby	Squannassit	Mt. Washington	Karner Brook Watershed
Ayer	Petapawag		Schenob Brook
	Squannassit	Newbury	Great Marsh
Barnstable	Sandy Neck Barrier Beach System	Norton	Hockomock Swamp
Bolton	Central Nashua River Valley		Canoe River Aquifer
Boston	Rumney Marshes		Three Mile River Watershed
	Fowl Meadow and Ponkapoag Bog	Norwood	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary	Orleans	Inner Cape Cod Bay
Bourne	Pocasset River		Pleasant Bay
	Bourne Back River	Pepperell	Petapawag
	Herring River Watershed		Squannassit
Braintree	Cranberry Brook Watershed	Peru	Hinsdale Flats Watershed
Brewster	Pleasant Bay	Pittsfield	Upper Housatonic River
	Inner Cape Cod Bay	Plymouth	Herring River Watershed
Bridgewater	Hockomock Swamp		Ellisville Harbor
Canton	Fowl Meadow and Ponkapoag Bog	Quincy	Neponset River Estuary
Chatham	Pleasant Bay	Randolph	Fowl Meadow and Ponkapoag Bog
Cohasset	Weir River	Raynham	Hockomock Swamp
Dalton	Hinsdale Flats Watershed	Revere	Rumney Marshes
Dedham	Fowl Meadow and Ponkapoag Bog	Rowley	Great Marsh
Dighton	Three Mile River Watershed	Sandwich	Sandy Neck Barrier Beach System
Dunstable	Petapawag	Saugus	Rumney Marshes
Eastham	Inner Cape Cod Bay		Golden Hills
	Wellfleet Harbor	Sharon	Canoe River Aquifer
Easton	Canoe River Aquifer		Fowl Meadow and Ponkapoag Bog
	Hockomock Swamp	Sheffield	Schenob Brook
Egremont	Karner Brook Watershed	Shirley	Squannassit
Essex	Great Marsh	Stockbridge	Kampoosa Bog Drainage Basin
Falmouth	Waquoit Bay	Taunton	Hockomock Swamp
Foxborough	Canoe River Aquifer		Canoe River Aquifer
Gloucester	Great Marsh		Three Mile River Watershed
Grafton	Miscoe-Warren-Whitehall Watersheds	Truro	Wellfleet Harbor
		Townsend	Squannassit
Groton	Petapawag	Tyngsborough	Petapawag
	Squannassit	Upton	Miscoe-Warren-Whitehall Watersheds
Harvard	Central Nashua River Valley		
	Squannassit	Wakefield	Golden Hills
Harwich	Pleasant Bay	Washington	Hinsdale Flats Watershed
Hingham	Weir River		Upper Housatonic River
	Weymouth Back River	Wellfleet	Wellfleet Harbor
Hinsdale	Hinsdale Flats Watershed	W Bridgewater	Hockomock Swamp
Holbrook	Cranberry Brook Watershed	Westborough	Cedar Swamp
Hopkinton	Miscoe-Warren-Whitehall Watersheds	Westwood	Fowl Meadow and Ponkapoag Bog
		Weymouth	Weymouth Back River
	Cedar Swamp	Winthrop	Rumney Marshes
Hull	Weir River		
Ipswich	Great Marsh		
Lancaster	Central Nashua River Valley		
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
	Upper Housatonic River		
Lenox	Upper Housatonic River		
Leominster	Central Nashua River Valley		
Lunenburg	Squannassit		
Lynn	Rumney Marshes		
Mansfield	Canoe River Aquifer		
Mashpee	Waquoit Bay		
Melrose	Golden Hills		
Milton	Fowl Meadow and Ponkapoag Bog		
	Neponset River Estuary		

Massachusetts Areas of Critical Environmental Concern (ACECs)

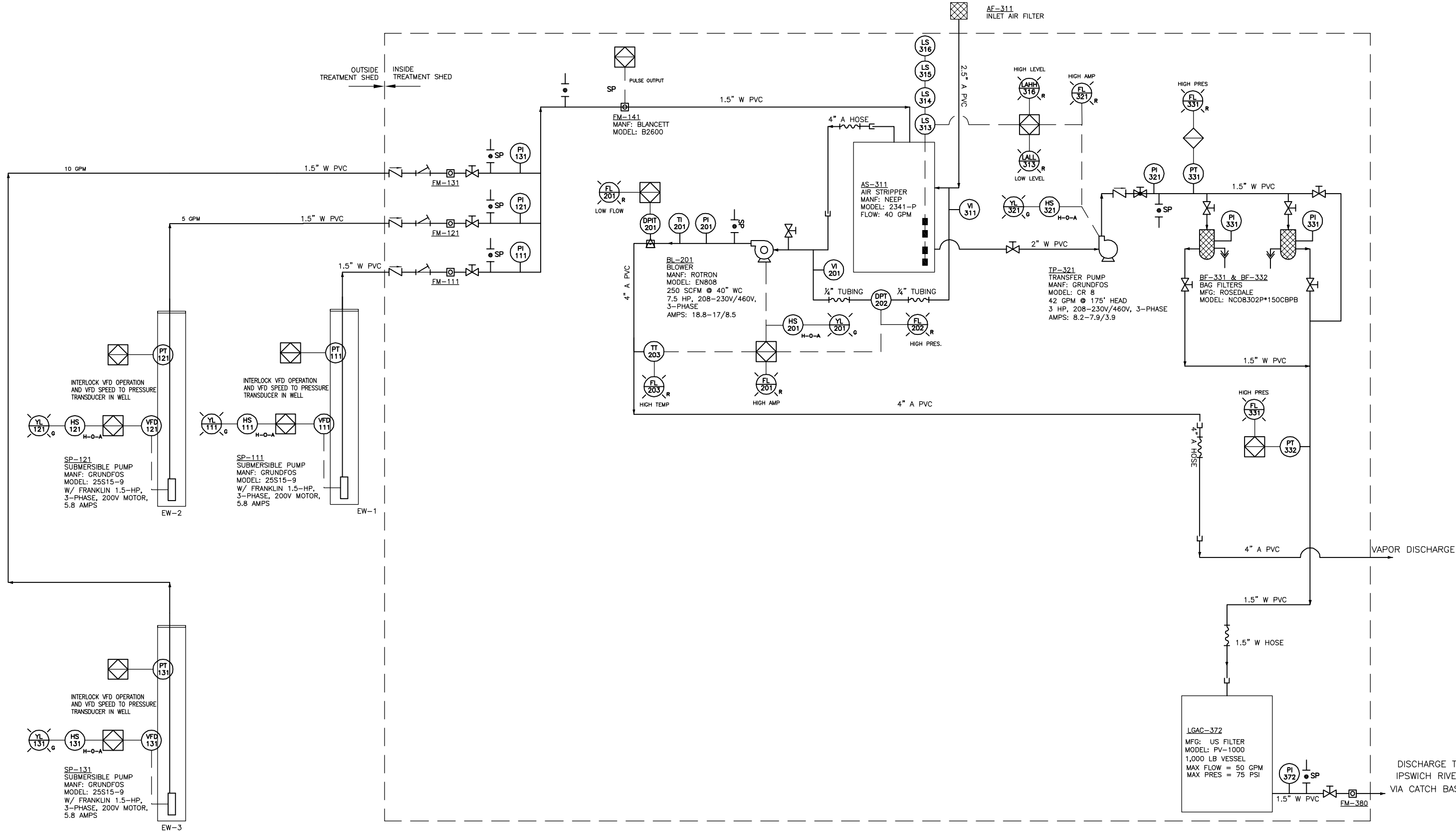


- | | |
|---------------------------------|--|
| 1 Bourne Back River | 16 Miscoe, Warren and Whitehall Watersheds |
| 2 Canoe River Aquifer | 17 Neponset River Estuary |
| 3 Cedar Swamp | 18 Petapawag |
| 4 Central Nashua River Valley | 19 Pleasant Bay |
| 5 Cranberry Brook Watershed | 20 Pocasset River |
| 6 Ellisville Harbor | 21 Rumney Marshes |
| 7 Fowl Meadow and Ponkapoag Bog | 22 Sandy Neck Barrier Beach System |
| 8 Golden Hills | 23 Schenob Brook Drainage Basin |
| 9 Great Marsh | 24 Squannassit |
| 10 Herring River Watershed | 25 Three Mile River Watershed |
| 11 Hinsdale Flats Watershed | 26 Upper Housatonic River |
| 12 Hockomock Swamp | 27 Waquoit Bay |
| 13 Inner Cape Cod Bay | 28 Weir River |
| 14 Kampoosa Bog Drainage Basin | 29 Wellfleet Harbor |
| 15 Karter Brook Watershed | 30 Weymouth Back River |

0 10 20 Miles

Section 2 (d), 4(a)

Figure 1 – Piping and
Instrumentation Diagram



Section 3 (a)

Contaminant Information (Table)
and Data Quality Summary

Section 3. Contaminant Information

The attached table provides a summary of analytical data, as requested in section 3 of the NOI for the RGP in Appendix V. Analytes detected at a concentration greater than the Method Detection Limit (MDL) but less than the Reporting Limit (RL) are considered estimated and are qualified with a J flag. A review of the data quality summary is presented below.

- No difficulties were encountered during the analyses and all quality control parameters were within the acceptance limits with the following exceptions:
 - o Acetone failed the recovery criteria high for LCS 360-65620/3 and LCSD 360-65620/4 indicating a high bias. For batches 360-65530 and 360-65620, Acetone failed the CCV criteria high also indicating a high bias. Therefore the results could actually be lower than the reported value. Acetone was not detected in the influent sample using 8260B as the analysis method. Therefore, no qualifiers are necessary..
 - o Phenol failed the recovery criteria low for LCS 360-65482/2-A indicating a potential low bias. Phenol was not detected at a RL of 4.5 ug/L. Using a rule of thumb correction factor of 1/LCS % (1/.26) multiplied by the RL would increase the RL to approximately 17.4 significantly below the effluent limit of 300ug/L for total Phenols. 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol exceeded the rpd limit for LCSD 360-65482/3-A. As these compounds were not detected, in the influent sample, the rpd limit exceedance has no effect on the data.
 - o Iron was detected in method blank MB 360-65462/1-A at a level that was above the MDL but below the RL. The value should be considered an estimate, and has been flagged “J”. If iron was detected in the associated sample above the MDL and/or RL, it would be qualified with a “B” flag. Iron was detected in the influent sample at a concentration above the MDL but below the RL, and the result has been qualified with a BJ flag.
 - o Selenium was detected in method blank MB 360-65467/1-A at a level that was above the MDL but below the RL. 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 would be qualified with a “B” flag. Selenium was detected in the influent sample at a concentration above the RL and has been qualified with a B flag.
- Laboratory methods used for analysis are the most current and certified standard methods used for the analysis of the list of respective parameters. In a few cases, the following RLs were above those requested by the EPA in Appendix VI.
 - o TRC – effluent limit is 11 ug/L → 20 ug/L is MDL and RL
 - o Total Cyanide – effluent limit is 5.2 ug/L → 10 ug/L is MDL and RL
 - o Total Group I PAHs – effluent limit is 0.0038 → MDL ranges from 0.058 ug/L to 0.15 ug/L and RL ranges from 0.18 ug/L to 0.91 ug/L.
 - o Total PCBs – effluent limit is 0.000064 ug/L → MDL ranges from 0.16 ug/L to 0.40 ug/L and RL is 0.91 ug/L
 - o Cadmium – effluent limit is 0.2 ug/L → MDL is 0.25 ug/L and RL is 1.0 ug/L

None of the above constituents were detected above their respective MDL and based upon site knowledge and history, are not expected to be present.

								Maximum Daily Value		Average Daily Value		
#	Parameter *	Believed Absent	Believed Present	Samples	Sample Type	Analytical Method Used	Minimum Level (ML) of Test Method Concentration	Concentration	Mass	Concentration	Mass	Data Package
				(#)	(e.g., grab)	(method #)	(ug/L)	(ug/L)	(kg)	(ug/L)	(kg)	
1	Total Suspended Solids (TSS)	x		1	grab	2540D	2,000	0	0	0	0	November 2010 RGP
2	Total Residual Chlorine (TRC)	x		1	grab	SM 4500-Cl F	20	0	0	0	0	November 2010 RGP
3	Total Petroleum Hydrocarbons (TPH)	x		1	grab	1664A	4,700	0	0	0	0	November 2010 RGP
4	Cyanide (CN)	x		1	grab	LACHAT L204-001A	10	0	0	0	0	November 2010 RGP
5	Benzene (B)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
6	Toluene (T)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
7	Ethylbenzene (E)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
8	(m,p,o) Xylene (X)	x		1	grab	8260B	2.0	0	0	0	0	November 2010 RGP
9	Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX)	x		1	grab	8260B	2.0	0	0	0	0	November 2010 RGP
10	Ethylene Dibromide (EDB, 1,2-dibromoethane)	x		1	grab	8011	0.02	0	0	0	0	November 2010 RGP
11	Methyl-tert-Butyl Ether (MTBE)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
12	tert-Butyl Alcohol (TBA)	x		1	grab	8260B	50	0	0	0	0	November 2010 RGP
13	tert-Amyl Methyl Ether (TAME)	x		1	grab	8260B	5.0	0	0	0	0	November 2010 RGP
14	Naphthalene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
15	Carbon Tetrachloride	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
16	1,2-Dichlorobenzene (o-DCB)		x	1	grab	8260B	1.0	0.66J	1.44E-04	0.66J	1.08E-04	November 2010 RGP
17	1,3-Dichlorobenzene (m-DCB)		x	1	grab	8260B	1.0	1.7	3.71E-04	1.7	2.78E-04	November 2010 RGP
18	1,4-Dichlorobenzene (p-DCB)		x	1	grab	8260B	1.0	0.62J	1.35E-04	0.62J	1.01E-04	November 2010 RGP
19	1,1-Dichloroethane (DCA)		x	1	grab	8260B	1.0	0.86J	1.87E-04	0.86J	1.41E-04	November 2010 RGP
20	1,2-Dichloroethane (DCA)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
21	1,1-Dichloroethene (DCE)		x	1	grab	8260B	1.0	0.51J	0.000111	0.51J	8.34E-05	May 2010 DMR
22	cis-1,2-Dichloroethene (DCE)		x	1	grab	8260B	1.0	2.9	6.32E-04	2.9	4.74E-04	November 2010 RGP

								Maximum Daily Value		Average Daily Value		
#	Parameter *	Believed Absent	Believed Present	Samples	Sample Type	Analytical Method Used	Minimum Level (ML) of Test Method Concentration	Concentration	Mass	Concentration	Mass	Data Package
				(#)	(e.g., grab)	(method #)	(ug/L)	(ug/L)	(kg)	(ug/L)	(kg)	
23	Methylene Chloride	x		1	grab	8260B	2.0	0	0	0	0	November 2010 RGP
24	Tetrachloroethylene (PCE)		x	1	grab	8260B	1.0	110	2.40E-02	110	1.80E-02	November 2010 RGP
25	1,1,1-Trichloroethane (TCA)		x	1	grab	8260C	1.0	1.0	0.000218	1	0.000164	October 2010 DMR
26	1,1,2-Trichloroethane (TCA)	x		1	grab	8260B	1.0	0	0	0	0	November 2010 RGP
27	Trichloroethene (TCE)		x	1	grab	8260B	1.0	12	2.62E-03	12	1.96E-03	November 2010 RGP
28	Vinyl Chloride (chloroethene)	x		1	grab	8260B	0.5	0	0	0	0	November 2010 RGP
29	Acetone	x		1	grab	8260B	50	0	0	0	0	November 2010 RGP
30	1,4-Dioxane	x		1	grab	8260B	50	0	0	0	0	November 2010 RGP
31	Total Phenols	x		1	grab	LACHAT L210-001A	10	0	0	0	0	November 2010 RGP
32	Pentachlorophenol (PCP)	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
33	Total Phthalates (Phthalate esters)		x	1	grab	8270C LL	4.5	0.55J	1.20E-04	0.55J	8.99E-05	November 2010 RGP
34	Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	x		1	grab	8270C LL	1.8	0	0	0	0	November 2010 RGP
35	Total Group I Polycyclic Aromatic Hydrocarbons (PAHs)	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	a. Benzo(a)Anthracene	x		1	grab	8270C LL	0.27	0	0	0	0	November 2010 RGP
	b. Benzo(a)Pyrene	x		1	grab	8270C LL	0.18	0	0	0	0	November 2010 RGP
	c. Benzo(b)Fluoranthene	x		1	grab	8270C LL	0.27	0	0	0	0	November 2010 RGP
	d. Benzo(k)Fluoranthene	x		1	grab	8270C LL	0.27	0	0	0	0	November 2010 RGP
	e. Chrysene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	f. Dibenzo(a,h)Anthracene	x		1	grab	8270C LL	0.45	0	0	0	0	November 2010 RGP
	g. Indeno(1,2,3-cd)Pyrene	x		1	grab	8270C LL	0.45	0	0	0	0	November 2010 RGP
36	Total Group II Polycyclic Aromatic Hydrocarbons (PAHs)	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	h. Acenaphthene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP

								Maximum Daily Value		Average Daily Value		
#	Parameter *	Believed Absent	Believed Present	Samples	Sample Type	Analytical Method Used	Minimum Level (ML) of Test Method Concentration	Concentration	Mass	Concentration	Mass	Data Package
				(#)	(e.g., grab)	(method #)	(ug/L)	(ug/L)	(kg)	(ug/L)	(kg)	
	i. Acenaphthylene	x		1	grab	8270C LL	0.27	0	0	0	0	November 2010 RGP
	j. Anthracene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	k. Benzo(g,h,i)Perylene	x		1	grab	8270C LL	0.45	0	0	0	0	November 2010 RGP
	l. Fluoranthene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	m. Fluorene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	n. Naphthalene	x		1	grab	8270C LL	0.91	0	0	0	0	November 2010 RGP
	o. Phenanthrene	x		1	grab	8270C LL	0.18	0	0	0	0	November 2010 RGP
	p. Pyrene	x		1	grab	8270C LL	4.5	0	0	0	0	November 2010 RGP
37	Total Polychlorinated Biphenyls (PCBs)			1	grab	608	0.91	0	0	0	0	November 2010 RGP
38	Chloride		x	1	grab	300	10,000	420,000	9.16E+01	420,000	6.87E+01	November 2010 RGP
39	Antimony	x		1	grab	200.8	1.0	0	0	0	0	November 2010 RGP
40	Arsenic	x		1	grab	200.8	1.0	0	0	0	0	November 2010 RGP
41	Cadmium	x		1	grab	200.8	1.0	0	0	0	0	November 2010 RGP
42	Chromium (III)	x		1	grab	7196A	5.0	0	0	0	0	November 2010 RGP
43	Chromium (VI)	x		1	grab	7196A	5.0	0	0	0	0	November 2010 RGP
44	Copper		x	1	grab	200.8	1.0	4.4	9.59E-04	4.4	7.19E-04	November 2010 RGP
45	Lead		x	1	grab	200.8	1.0	1.2	2.62E-04	1.2	1.96E-04	November 2010 RGP
46	Mercury		x	1	grab	245.1	0.20	0.61	1.33E-04	0.61	9.97E-05	November 2010 RGP
47	Nickel		x	1	grab	200.7	10	2.6J	5.67E-04	2.6J	4.25E-04	November 2010 RGP
48	Selenium		x	1	grab	200.8	1.0	6.7B	1.46E-03	6.7B	1.10E-03	November 2010 RGP
49	Silver	x		1	grab	200.8	1.0	0	0	0	0	November 2010 RGP
50	Zinc		x	1	grab	200.7	50	9.7J	2.11E-03	9.7J	1.59E-03	November 2010 RGP

								Maximum Daily Value		Average Daily Value		
#	Parameter *	Believed Absent	Believed Present	Samples	Sample Type	Analytical Method Used	Minimum Level (ML) of Test Method Concentration	Concentration	Mass	Concentration	Mass	Data Package
				(#)	(e.g., grab)	(method #)	(ug/L)	(ug/L)	(kg)	(ug/L)	(kg)	
51	Iron		x	1	grab	200.7	100	46JB	1.00E-02	46JB	7.52E-03	November 2010 RGP
OTHER CONSTITUENTS												
	1,2,3-trichlorobenzene		x	1	grab	8260C	1.0	0.82J	0.000179	0.82J	0.000134	November 2010 DMR
	1,2,4-trichlorobenzene		x	1	grab	8260C	1.0	1.9	0.000414	1.9	0.000311	November 2010 DMR
	chlorobenzene		x	2	grab	8260C	1.0	0.29J	6.32E-05	0.29J	4.74E-05	November 2010 DMR

Section 3(b)

Dilution Factor calculations

3b) Dilution Factor Calculation NPDES RGP

YRC Terminal
95 Concord Street
North Reading, Massachusetts

Equation:

$$DF = (Q_d + Q_s)/Q_d$$

DF = dilution factor

Q_d = maximum discharge flow rate

Q_s = 7Q₁₀ flow of the receiving water

$$12.8 = (0.089 + 1.05)/0.089$$

Qd (gpm)	Qd (cfs)	Qs (7Q10)	Dilution Factor
40	0.089	1.05	12.8

For selenium:

Based on Appendix IV for the Remediation General Permit in MA,

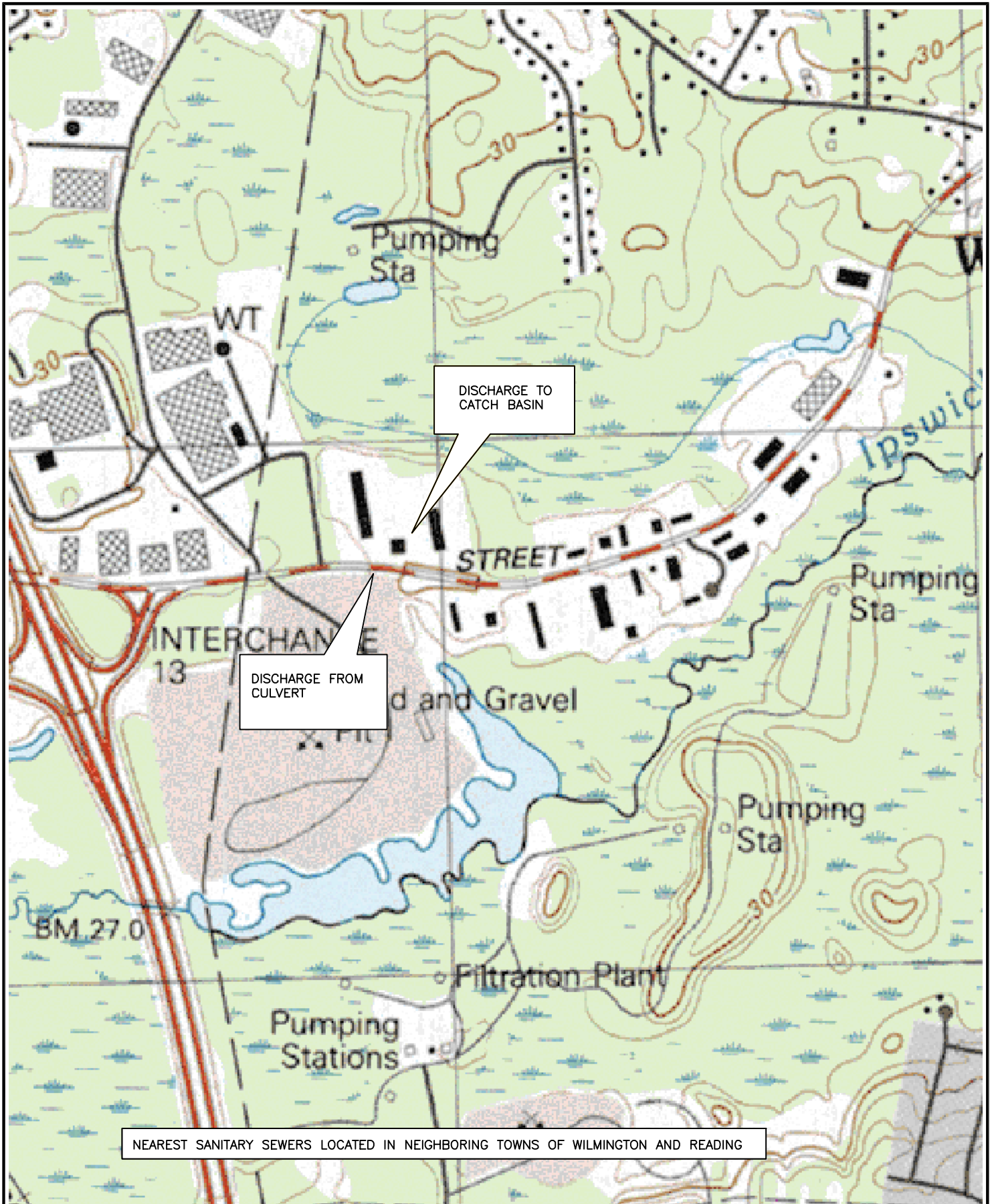
The "Chloride & Total Recoverable Metal Limitations (ug/L) by Dilution Factor Range" table indicates that the effluent limit for selenium would be increased from 5 ug/L to 50 ug/L with a dilution factor of 12.8.

Notes:

Q_s was derived using USGS's StreamStats program for Ungaged Streams (attached in Section 5)

Section 5 (c)

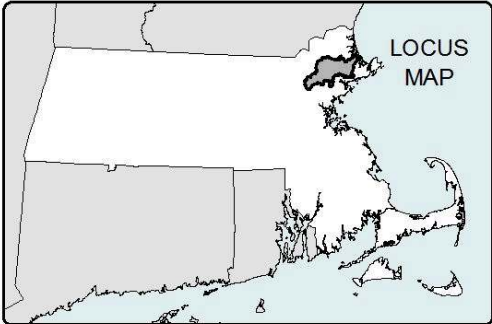
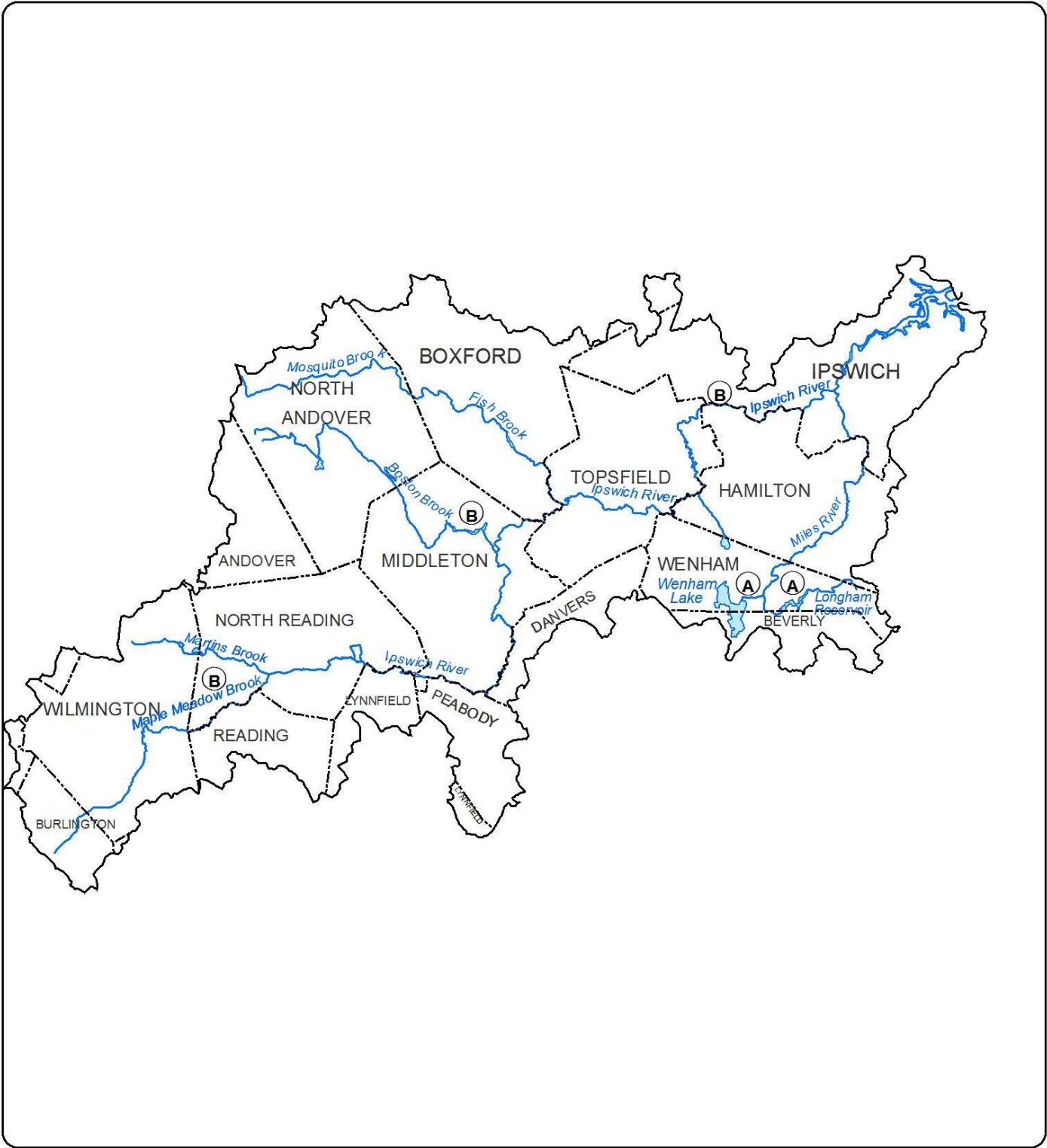
Discharge Location Figure



Section 5(d)

Water Classification
Documentation

4.06: continued



LEGEND

- (A) (B) (SA) (SB) Class
- Change in Class
- River, Stream, Coastline
- Lake, Pond, Reservoir
- Basin Boundary
- Town Boundary

0 2.5 5 10 Miles

Figure 22
IPSWICH
RIVER BASIN

4.06: continued

TABLE 22
IPSWICH RIVER BASIN

<u>BOUNDARY</u>	<u>MILE POINT</u>	<u>CLASS</u>	<u>QUALIFIERS</u>
<u>Ipswich River</u>			
Source to Salem Beverly Waterway Canal	41.1 - 16.4	B	Treated Water Supply Warm Water High Quality Water
Salem Beverly Waterway Canal to tidal portion	16.4 - 4.5	B	Warm Water High Quality Water
Tidal portion and tributaries thereto	4.5 - 0.0	SA	Shellfishing
<u>Middleton Pond</u>			
Source to outlet in Middleton and those tributaries thereto	-	A	Public Water Supply
<u>Swan Pond</u>			
Source to outlet in North Reading and those tributaries thereto	-	A	Public Water Supply
<u>Mill Pond Reservoir</u>			
Source to outlet in Burlington and those tributaries thereto	-	A	Public Water Supply
<u>Longham Reservoir</u>			
Source to outlet in Wenham and those tributaries thereto	-	A	Public Water Supply
<u>Wenham Lake</u>			
Source to outlet in Wenham and those tributaries thereto	-	A	Public Water Supply
<u>Putnamville Reservoir</u>			
Source to outlet in Danvers and those tributaries thereto	-	A	Public Water Supply
<u>Suntaug Lake</u>			
Source to outlet in Lynn and Peabody and those tributaries thereto	-	A	Public Water Supply
<u>Winona Pond</u>			
Pond to outlet in Peabody and those tributaries thereto	-	A	Public Water Supply

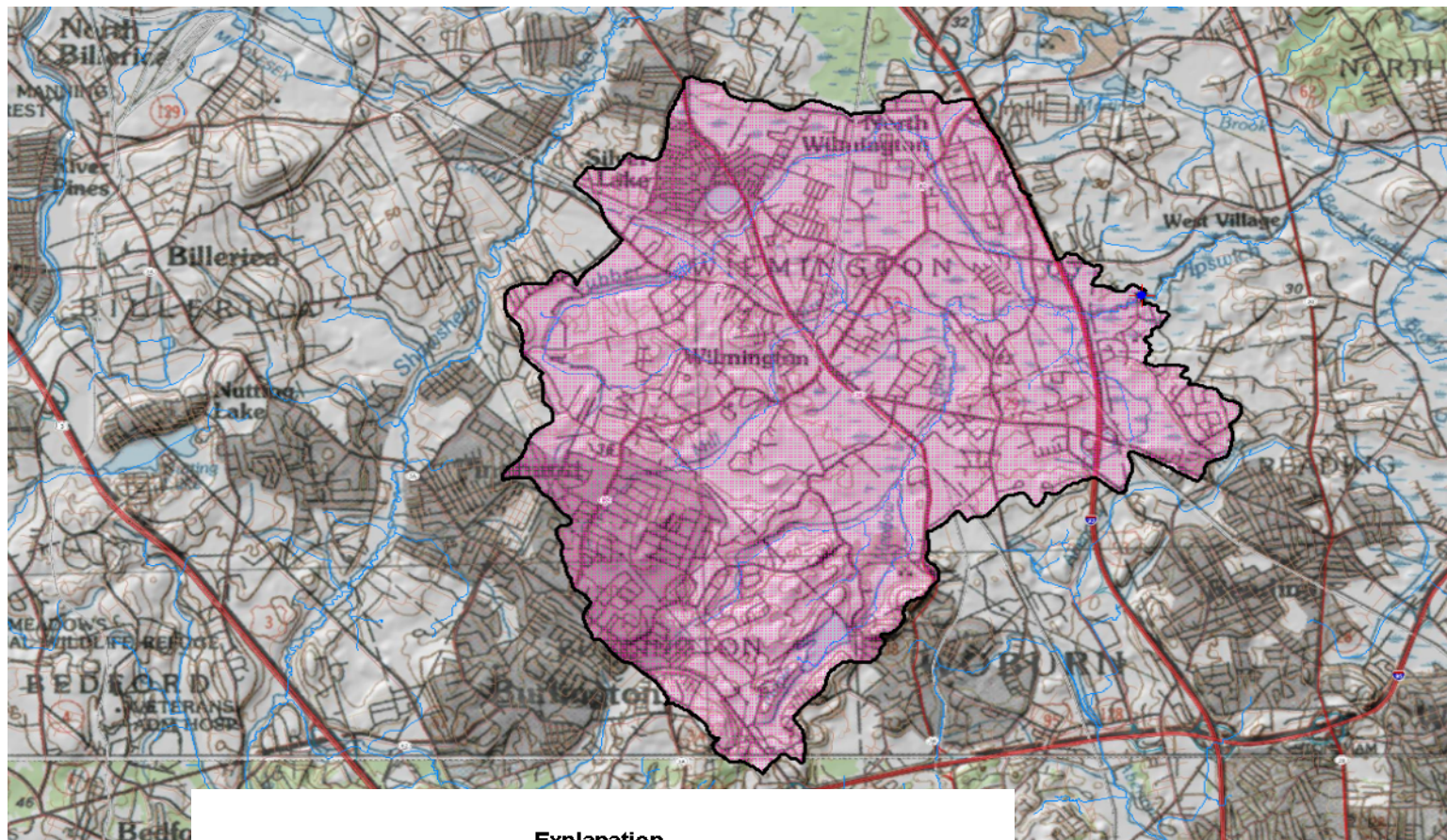
Section 5 (e)

StreamStats Documentation

7day-10 year Low Flow



StreamStats Print Page



Explanation

★ GlobalWatershedPoint	Stream Gages	— Dendritic Stream Network
◆ NHDHGage	▲ Gaging Station, Continuous Record	— streams
◆ NHDHDam	▲ Low Flow, Partial Record	▭ GlobalWatershed
◆ huc_net_Junctions	▲ Peak Flow, Partial Record	⊗ Excludepoly
	▲ Peak and Low Flow, Partial Record	□ hucpoly
	▲ Miscellaneous Record	
	▲ Unknown	





Streamstats Ungaged Site Report

Date: Wed Dec 8 2010 10:08:19 Mountain Standard Time
Site Location: Massachusetts
AD27 Latitude: 42.5547 (42 33 17)
AD27 Longitude: -71.1294 (-71 07 46)
AD83 Latitude: 42.5548 (42 33 17)
AD83 Longitude: -71.1289 (-71 07 44)
ReachCode: 01090001016656
Leisure: 4.48
Drainage Area: 16.7 mi2

Low Flows Basin Characteristics			
100 % Statewide Low Flow (16.7 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	16.7	1.61	149
Mean Basin Slope from 250K DEM (percent)	0.9	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.47	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Probability of Perennial Flow Basin Characteristics			
100 % Perennial Flow Probability (16.7 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	16.7 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	66.15	0	100
Percent Forest (percent)	15.68	0	100
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

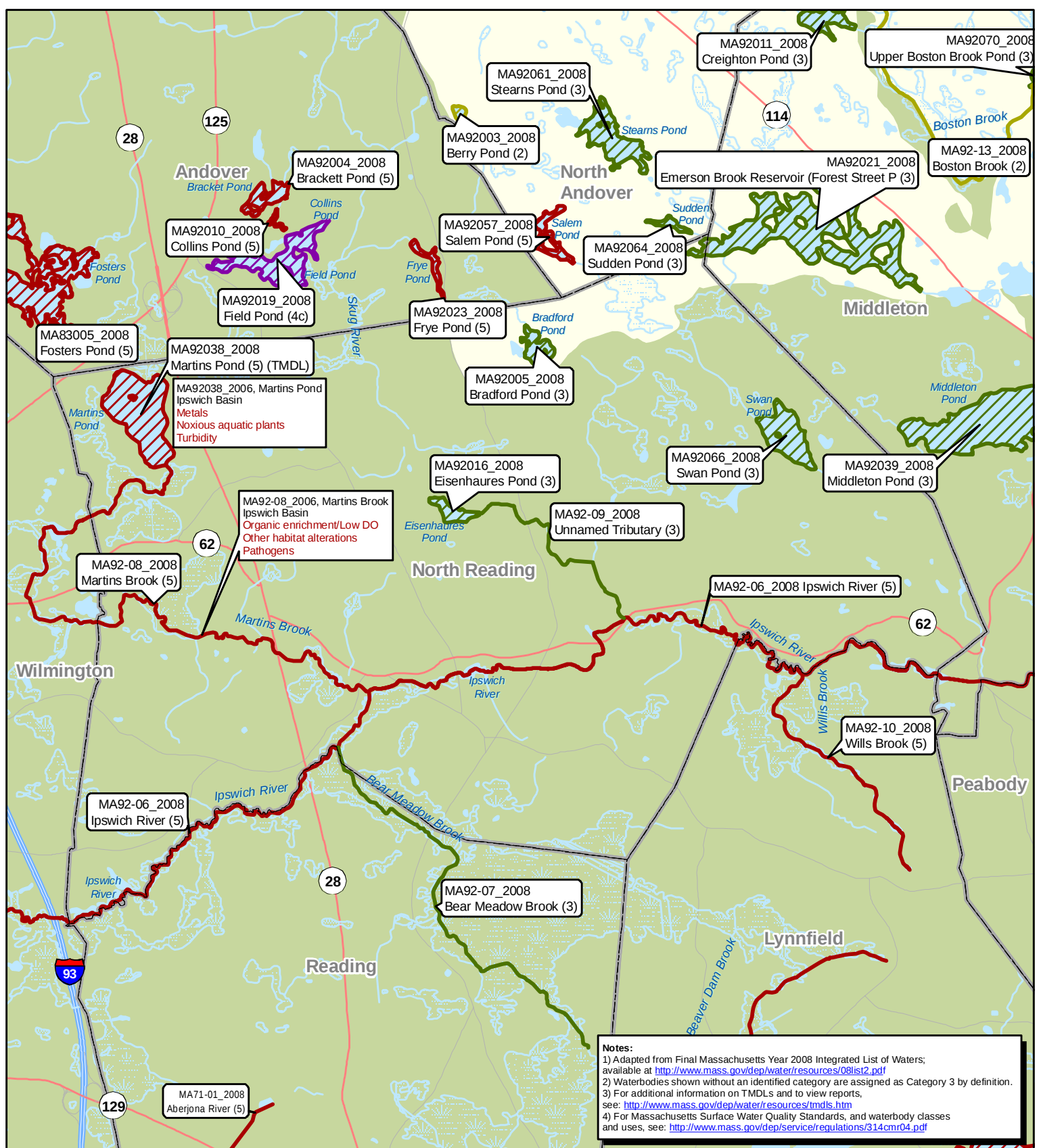
Low Flows Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	16.9	18		10.1	27.9
D60	13.7	20		4.34	42.9
D70	10.1	24		3.66	27.6
D75	8.35	26		3.16	21.8
D80	6.66	28		2.37	18.5
D85	4.89	32		1.66	14.1
D90	3.79	37		1.28	11
D95	2.18	46		0.62	7.42
D98	1.5	60		0.38	5.59
D99	1.14	65		0.27	4.59
M7D2Y	2.5	50		0.68	8.86
AUGD50	5.65	33		1.87	16.8
M7D10Y	1.05	71		0.23	4.45

The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi2, as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEN	1	

Section 5 (f)

Waterbody Assessment and
TMDL Status



Waterbody Assessment and TMDL Status North Reading, MA



0 0.5
Miles



Map produced by EPA Region I GIS Center
Map Tracker ID 6678, February 25, 2010
Data Sources: TeleAtlas, Census Bureau,
USGS, MassDEP

See companion table for a listing of pollutants, non-pollutants, and TMDLs for each waterbody

Summary of Waterbody Assessment and TMDL Status in Massachusetts

North Reading, MA

ID	Waterbody Name	Watershed Name	Category	Acres		Miles		Cause	TMDL
				In Town - Total		In Town - Total			
MA92-06_2008	Ipswich River	Ipswich	5			4.3	20.4	Flow alteration* Metals Nutrients Organic enrichment/Low DO	
MA92-07_2008	Bear Meadow Brook	Ipswich	3			0.1	2.8		
MA92-08_2008	Martins Brook	Ipswich	5			3.2	4.6	Organic enrichment/Low DO Other habitat alterations* Pathogens	
MA92-09_2008	Unnamed Tributary	Ipswich	3			1.4	1.4		
MA92005_2008	Bradford Pond	Ipswich	3	14.17	14.17				
MA92016_2008	Eisenhaures Pond	Ipswich	3	11.98	11.98				
MA92021_2008	Emerson Brook Reservoir (Forest Str	Ipswich	3	3.07	195.43				

1) Adapted from Final Massachusetts Year 2008 Integrated List of Waters (CN 281.1, 12/2008); available at <http://www.mass.gov/dep/water/resources/08list2.pdf>
 2) For additional information on TMDLs and to view reports, see: <http://www.mass.gov/dep/water/resources/tmdls.htm>
 3) For Massachusetts Surface Water Quality Standards, and waterbody classes and uses, see: <http://www.mass.gov/dep/service/regulations/314cmr04.pdf>

Assessment of Waterbody Segment

Category 2 - Attaining some uses; other uses not assessed
 Category 3 - Insufficient information to make assessments for any use
 Category 4a - TMDL is completed
 Category 4c - Impairment not caused by a pollutant
 Category 5 - Impaired or threatened for one or more uses and requiring a TMDL

Summary of Waterbody Assessment and TMDL Status in Massachusetts

North Reading, MA

ID	Waterbody Name	Watershed Name	Category	Acres		Miles		Cause	TMDL
				In Town -	Total	In Town -	Total		
MA92038_2008	Martins Pond	Ipswich	5	89.01	89.01			Exotic species* Mercury Noxious aquatic plants Turbidity	NEHgTMDL
MA92066_2008	Swan Pond	Ipswich	3	42.04	42.04				

1) Adapted from Final Massachusetts Year 2008 Integrated List of Waters (CN 281.1, 12/2008); available at <http://www.mass.gov/dep/water/resources/08list2.pdf>
 2) For additional information on TMDLs and to view reports, see: <http://www.mass.gov/dep/water/resources/tmdls.htm>
 3) For Massachusetts Surface Water Quality Standards, and waterbody classes and uses, see: <http://www.mass.gov/dep/service/regulations/314cmr04.pdf>

Assessment of Waterbody Segment

Category 2 - Attaining some uses; other uses not assessed
 Category 3 - Insufficient information to make assessments for any use
 Category 4a - TMDL is completed
 Category 4c - Impairment not caused by a pollutant
 Category 5 - Impaired or threatened for one or more uses and requiring a TMDL

Note: The accuracy of mileage and acreage estimates is limited for waterbodies that serve as or span municipal boundaries

Section 6

ESA and NHPA Eligibility

Section 6. ESA and NHPA Eligibility

6 (a) through (d)

Based on a review of available Site information, the attached table “Federally Listed Endangered and Threatened Species in Massachusetts” obtained from the United States Fish and Wildlife Service, New England Field Office, and a review of the Massachusetts Division of Fisheries and Wildlife’s Natural Heritage & Endangered Species Program lists of threatened and endangered species, there are no federally-listed threatened or endangered species or critical habitats identified in the town of North Reading. Although the questions for determining eligibility for Criterion A are county-specific, and Middlesex County is listed as having threatened or endangered species present, the table provided by the New England Field Office provides further information by listing the towns within each county where threatened and endangered species may be located. North Reading is not included. Therefore, Criterion A was selected.

In addition, Anthony Tur of the United States Department of the Interior’s Fish and Wildlife Service, confirmed in a telephone conversation on December 9, 2010, that the discharge for which coverage is being sought under this application is “not likely to adversely affect” listed species or critical habitat. This determination was confirmed upon a review of the aforementioned table in part (a). Since no listed species are present in North Reading, MA, Mr. Tur directed ARCADIS to include the attached letter from Thomas Chapman dated January 4, 2010 as concurrence. The instructions for Endangered Species Consultation – Project Review for Projects with Federal Involvement (authorizing, funding or carrying out the project) and allowing the use of the attached letter are included on the web page of the New England Field Office of the U.S. Fish and Wildlife Service.

Additional information to support the above determination is also included. A MassDEP – Bureau of Waste Site Cleanup MCP Numerical Ranking System map: 500 ft & 0.5 Mile Radii (attached) indicates that no endangered or threatened species or their designated critical habitat are likely to occur in proximity to the storm water discharges or discharge related activities.

Section 6(e)

Based on our discussions on December 2, 2010 with Michael Ligman in the Technical Services Division at the Massachusetts Historical Commission, there would be no potential impact to archaeological or historical Sites as there will be no new construction associated with this existing discharge. Additionally, a visual inspection of the Site and discharge area indicates that there would be no historical properties that would be impacted by discharge activities (database search results of the National Register of Historic Places and the Massachusetts Cultural Resource Information System are attached). While there a number of sites listed in North Reading, none are within the vicinity of the Site and discharge area. Therefore, Criterion 1 is assigned.

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

- Eastern cougar and gray wolf are considered extirpated in Massachusetts.
- Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
- Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

Revised 06/22/2009



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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

January 4, 2010

To Whom It May Concern:

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

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

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

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

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

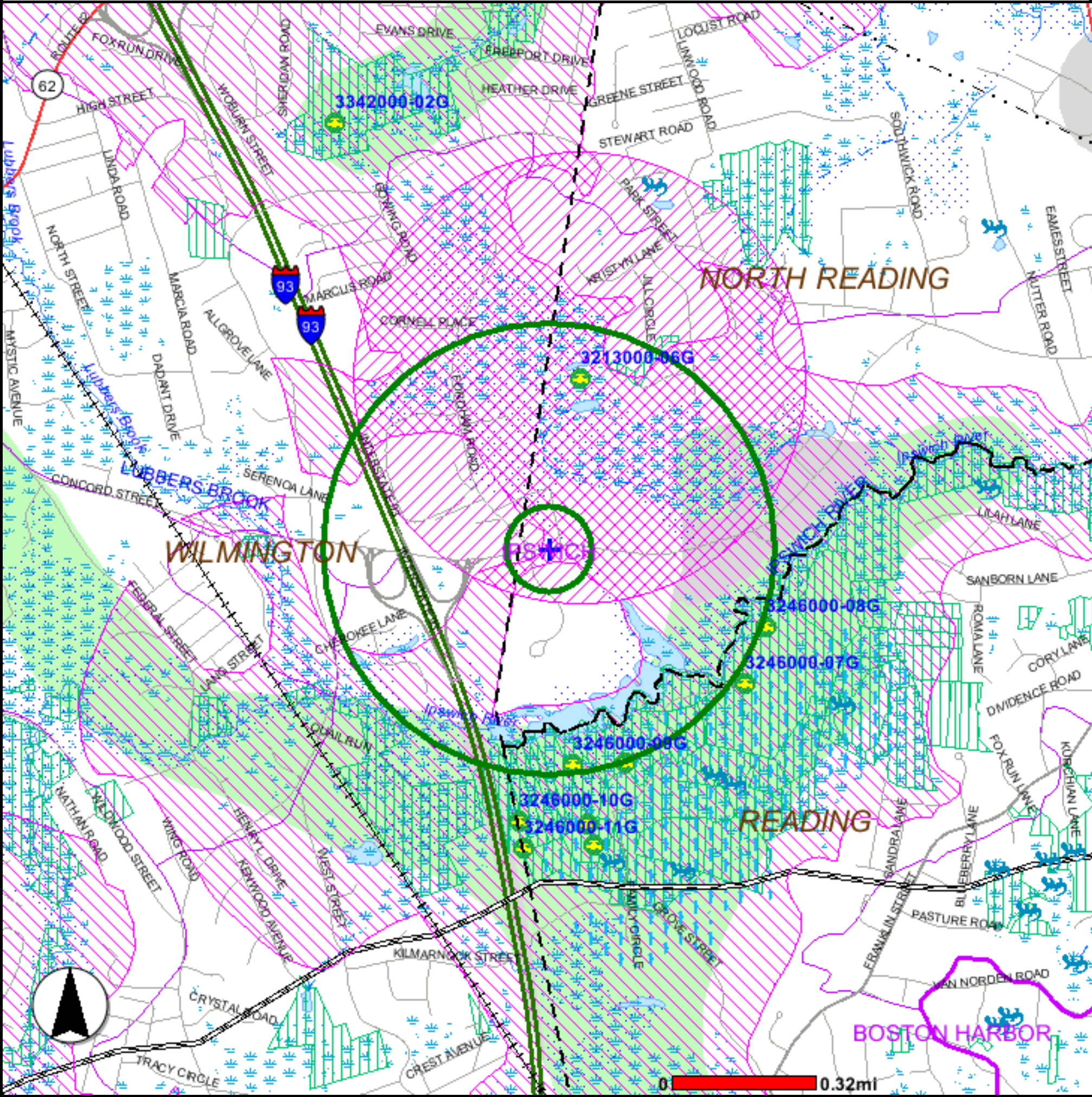
Site Name:
YRC, Inc.
95 Concord Street
North Reading, MA
RTN: 3-000002363
NAD83 MA Coordinates:
230025mE, 923165mN



The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm



December 8, 2010



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A		
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat		
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog		
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC		
Non Potential Drinking Water Source Area: Medium, High (Yield)	NHESP: Est Rare Wetland Habitat, Certified Vernal Pool		
	DEP Permitted Solid Waste Landfill		

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National Park Service
U.S. Department of the Interior



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12/9/2010

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): North Reading;

Inv. No.	Property Name	Street	Town	Year
NRE.A	Peabody Court		North Reading	
NRE.B	Center Village Historic District		North Reading	
NRE.C	First Period Buildings of Eastern Massachusetts		North Reading	
NRE.D	McIntire, Jacob House and Shed		North Reading	
NRE.E	Main Street Streetscape		North Reading	
NRE.F	Chestnut Street Village		North Reading	
NRE.G	Elm Street - Dutton's Corner		North Reading	
NRE.H	Haverhill Street - Mount Vernon Street Area		North Reading	
nre.i	Massachusetts State Tuberculosis Sanatorium		North Reading	
NRE.J	Upton Avenue and Chestnut Street Area		North Reading	
NRE.K	West Village - Pudding Point		North Reading	
NRE.65	Kittredge House	10 Batchelder Ave	North Reading	1905
NRE.39	Abbott, Daniel Graves House	3 Bow St	North Reading	1853
NRE.38	Hart, Joseph M. Cabinet Maker Shop	5 Bow St	North Reading	1853
NRE.37		7-9 Bow St	North Reading	1952
NRE.32	Hart, Joseph M. House	10 Bow St	North Reading	1854
NRE.36	Buxton, Benjamin House	11 Bow St	North Reading	1816
NRE.33	Walls, William House	12 Bow St	North Reading	1836
NRE.35	Turner, James Edwin House	13 Bow St	North Reading	1889
NRE.34	Turner, Roy W. House	15 Bow St	North Reading	1925
NRE.26	Jeffrey, Elisha House	19 Bow St	North Reading	1844
NRE.25	Damon, David Tavern	21 Bow St	North Reading	1817
NRE.24	Foster, Edwin House	25 Bow St	North Reading	1838
NRE.23	Putnam, Rev. Daniel House	27 Bow St	North Reading	1720
NRE.22	Foster, Elizabeth Putnam House	33 Bow St	North Reading	1871
NRE.145	Upton - Howard House	3 Cedar St	North Reading	1840
NRE.146	Upton, Aaron and Amos Jr. House	7 Cedar St	North Reading	1760

Thursday, December 09, 2010

Page 1 of 7

Inv. No.	Property Name	Street	Town	Year
NRE.28	Flint Memorial Hall	1 Central Sq	North Reading	1875
NRE.800	Gould Family Cemetery	255 Central St	North Reading	1847
NRE.801	Harmony Vale Cemetery	Chestnut St	North Reading	1800
NRE.66	Flint - Smith, G. S. House	1 Chestnut St	North Reading	1800
NRE.67	Flint, A. House	46 Chestnut St	North Reading	1865
NRE.68	Flint, A. Barn	46 Chestnut St	North Reading	1865
NRE.69	Harris, James Z. House	56 Chestnut St	North Reading	1870
NRE.70	Burditt, Jonathan N. House and Shop	73 Chestnut St	North Reading	1792
NRE.73	Walker, Charles M. Cottage	91 Chestnut St	North Reading	1920
NRE.71	Whittredge, William House	97 Chestnut St	North Reading	1750
NRE.72	Whittredge, William Barn	97 Chestnut St	North Reading	1865
NRE.74	Upton, Frederic A. - Upton, Lysander House	108 Chestnut St	North Reading	1845
NRE.147	Upton, Wallace F. House	115 Chestnut St	North Reading	1915
NRE.148	Abbott, Ebenezer - Merrill, Lorenzo G. House	118 Chestnut St	North Reading	1845
NRE.149	Parker, Elijah B. House	121 Chestnut St	North Reading	1685
NRE.150	Parker, George B. - Abbott, Joel House	122 Chestnut St	North Reading	1845
NRE.151	Parker, Dea. George K. House	124 Chestnut St	North Reading	1845
NRE.152	Parker, George B. House and Shoe Factory	125 Chestnut St	North Reading	1855
NRE.63	Parker, Eliab Jr. House	126 Chestnut St	North Reading	1783
NRE.191	Eaton, David G. House	135 Chestnut St	North Reading	1750
NRE.192	Upton, Louis House	138 Chestnut St	North Reading	1840
NRE.802	Riverside Cemetery	Elm St	North Reading	1750
NRE.75	Upton, Benjamin House	17 Elm St	North Reading	1781
NRE.76	Hayward, Sylvester Shed	17 Elm St	North Reading	1870
NRE.77	Hayward, Leon G. House	34 Elm St	North Reading	1900
NRE.78	Hayward - Howard, John House	41 Elm St	North Reading	1860
NRE.79	McIntire, Archelaus - Jeffreys, Joseph House	67 Elm St	North Reading	1787
NRE.80	Tarbox, Rachel E. House	107 Elm St	North Reading	1795
NRE.81	Orben, Henry House	151 Elm St	North Reading	1850
NRE.82	Parker, David Jr. - Rayner, Thomas House	189 Elm St	North Reading	1795
NRE.83	Parker, David Jr. - Rayner, Thomas Barn	189 Elm St	North Reading	
NRE.84	Upton, Ebenezer - Graves, Daniel House	207 Elm St	North Reading	1732
NRE.85		207 Elm St	North Reading	1985
NRE.86	Parker, Lt. David - Pickard, William H. House	215 Elm St	North Reading	1710
NRE.88	Graves, Capt. Daniel - Holt, Joseph E. House	221 Elm St	North Reading	1725
NRE.89	Gates, J. S. House	232 Elm St	North Reading	1840
NRE.64	Bickford, John House	235 Elm St	North Reading	1735
NRE.157	Upton, Charles A. Slaughter House	240 Elm St	North Reading	1785

Inv. No.	Property Name	Street	Town	Year
NRE.158	Upton, Charles A. House	245 Elm St	North Reading	1800
NRE.159	North Reading Poor House	248 Elm St	North Reading	1792
NRE.160	Eaton, Joseph H. House	255 Elm St	North Reading	1810
NRE.161	Cotter, James P. House	256 Elm St	North Reading	1900
NRE.162	Flint, Eben House and Shoe Shop	257 Elm St	North Reading	1840
NRE.163	Eaton, Thomas - Smith, Ann C. House	259 Elm St	North Reading	1844
NRE.164	Gowing, Joseph D. House	273 Elm St	North Reading	1910
NRE.165	Hayward, Samuel House	279 Elm St	North Reading	1739
NRE.166	McIntire, Asa R. House	283 Elm St	North Reading	1840
NRE.92	Gowing, Jacob D. Barn	7 Gowing Ln	North Reading	1880
NRE.93	Gowing, Jacob D. Barn	7 Gowing Ln	North Reading	1880
NRE.900	North Reading Bandstand	Haverhill St	North Reading	1976
NRE.902	Haverhill Street Bridge over Ipswich River	Haverhill St	North Reading	1958
NRE.94	Nichols, Jeremiah House	15 Haverhill St	North Reading	1792
NRE.95	Nichols, Jeremiah Barn	15 Haverhill St	North Reading	
NRE.154	Hersey, Nathan W. House	61 Haverhill St	North Reading	1864
NRE.155	Flint, Daniel House	70 Haverhill St	North Reading	1840
NRE.156	Nichols, William I. House	76 Haverhill St	North Reading	1845
NRE.61	Franklin District School	85 Haverhill St	North Reading	1820
NRE.170	North Reading First Baptist Church	97 Haverhill St	North Reading	1927
NRE.171	Abbott, Ebenezer Tilden House	100 Haverhill St	North Reading	1834
NRE.172	Abbott, Ebenezer Tilden House	109 Haverhill St	North Reading	1865
NRE.173	Eaton, Hovey D. House	110 Haverhill St	North Reading	1910
NRE.174	Jeffrey, E. and Company	114 Haverhill St	North Reading	1850
NRE.55	Ryer, Mollie F. House	125 Haverhill St	North Reading	1925
NRE.21	Hoyt, Dr. W. Hadley House	143 Haverhill St	North Reading	1953
NRE.20	Abbott, Alice L. Upton House	145 Haverhill St	North Reading	1930
NRE.18	Union Congregational Church	148 Haverhill St	North Reading	1836
NRE.19	Stone, Matilda Lydia Jones House	149 Haverhill St	North Reading	1891
NRE.16	Hammond, John F. House	151 Haverhill St	North Reading	1841
NRE.17	Holt, Solon O. House	152 Haverhill St	North Reading	1872
NRE.15	Hammond, John F. Barn	153 Haverhill St	North Reading	1842
NRE.12	Flint, John II House	154 Haverhill St	North Reading	1849
NRE.14	Putnam, Henry Barn	155 Haverhill St	North Reading	1800
NRE.13		157 Haverhill St	North Reading	
NRE.96		170 Haverhill St	North Reading	1920
NRE.97	Campbell, John Buxton House	171 Haverhill St	North Reading	1857
NRE.98	Graves, D. House	192 Haverhill St	North Reading	1839

Inv. No.	Property Name	Street	Town	Year
NRE.99	Graves, D. Barn	192 Haverhill St	North Reading	
NRE.100	Campbell, Walter S. House	219 Haverhill St	North Reading	1900
NRE.101	Foley, Dennis and Thomas L. House	222 Haverhill St	North Reading	1740
NRE.102	Flint, Ebenezer Jr. House	315 Haverhill St	North Reading	1830
NRE.103	Wood, William M. Caretaker's Cottage	318 Haverhill St	North Reading	1918
NRE.104	Wood, William M. Caretaker's Barn and Stable	318 Haverhill St	North Reading	1918
NRE.105	Batchelder, Joseph House	338 Haverhill St	North Reading	1817
NRE.11	Putnam, Henry House	3 Hill St	North Reading	1856
NRE.10	Pennell, Albert House	5 Hill St	North Reading	1950
NRE.9	Campbell, Warren A. House	9 Hill St	North Reading	1849
NRE.182	Massachusetts State Tuberculosis Sanatorium	Lowell Rd	North Reading	1915
NRE.183	Massachusetts State Tuberculosis Sanatorium	Lowell Rd	North Reading	1915
NRE.184	Massachusetts State Tuberculosis Sanatorium	Lowell Rd	North Reading	1915
NRE.185	Massachusetts State Tuberculosis Sanatorium	Lowell Rd	North Reading	1915
NRE.803	Congregation Ahabat Sholum Cemetery	Main St	North Reading	1905
NRE.901	Martins Brook Bridge	Main St	North Reading	1903
NRE.142	Carpenter, Edward A. - McLane, Jared Brown House	25 Main St	North Reading	1900
NRE.143	Carpenter, Edward A. - McLane, Jared Brown House	27 Main St	North Reading	1900
NRE.144	Carpenter, Edward A. - McLane, Jared Brown House	29 Main St	North Reading	1900
NRE.106	Pleasure Lanes	160 Main St	North Reading	1960
NRE.193	Jenkins, Luther House	18 Mill St	North Reading	1849
NRE.194	Upton - Batchelder House	25 Mill St	North Reading	1720
NRE.107	Flint, W. - Eaton House	10 Mount Vernon St	North Reading	1781
NRE.108	Flint, W. - Eaton Barn	10 Mount Vernon St	North Reading	
NRE.109	Eaton, George E. House	22 Mount Vernon St	North Reading	1910
NRE.110	Eaton, George E. Barn	22 Mount Vernon St	North Reading	1910
NRE.175	McDonald, John House	47 Mount Vernon St	North Reading	1860
NRE.176	Parker, Gustavus E. - Monroe, A. B. House	51 Mount Vernon St	North Reading	1860
NRE.177	Morse, William S. House	55 Mount Vernon St	North Reading	1862
NRE.178	First Baptist Church Parsonage	58 Mount Vernon St	North Reading	1875
NRE.179	Whittredge, William A. House	59 Mount Vernon St	North Reading	1865
NRE.180	Foster, Walter K. House	62 Mount Vernon St	North Reading	1865
NRE.181	Hall, Benjamin and Horace House	63 Mount Vernon St	North Reading	1865
NRE.111	Eaton, Ebenezer House	16 North St	North Reading	1753
NRE.112	Eaton, Moses - LeFavor, Woodbury P. House	31 North St	North Reading	1890
NRE.113	Westcott, S. P. - Emerson, Benjamin A. House	117 North St	North Reading	1825

Inv. No.	Property Name	Street	Town	Year
NRE.114	Holt, Benjamin House	178 North St	North Reading	1790
NRE.115	Batchelder, Dennis House	220 North St	North Reading	1795
NRE.60	North Reading Junior and Senior High School	Park St	North Reading	1957
NRE.804	Park Street Cemetery	Park St	North Reading	1741
NRE.903	Stone Bridge	Park St	North Reading	1903
NRE.116	McIntire, Jacob House	85 Park St	North Reading	1850
NRE.117	McIntire, Jacob Shed	85 Park St	North Reading	1870
NRE.118	Abbott, Frederick A. - Eames, Benjamin House	95 Park St	North Reading	1841
NRE.119	Abbott, Frederick A. - Eames, Benjamin Barn	95 Park St	North Reading	1850
NRE.120	Upton, John K. Slaughterhouse	95 Park St	North Reading	1870
NRE.121	Mason, Ozro - Abbott, Herbert Leon House	98 Park St	North Reading	1860
NRE.122	Eaton, Albert Barn	100 Park St	North Reading	1870
NRE.123	Eaton, Albert House	102 Park St	North Reading	1850
NRE.40	Symonds, Otis P. Box Factory	121 Park St	North Reading	1905
NRE.41	Lavers, Milton House	122 Park St	North Reading	1958
NRE.42	Abbott, Capt. Ebenezer III House	128 Park St	North Reading	1819
NRE.31	McLane, J. B. House	129 Park St	North Reading	1894
NRE.43	Abbott, Benjamin Swain - Harnden, William House	130 Park St	North Reading	1847
NRE.30	Ward, James M. House	131 Park St	North Reading	1837
NRE.44	Eaton, James L. - Carpenter, Edward A. House	132 Park St	North Reading	1839
NRE.45	Bay-Bank Middlesex Bank Branch Office	132a Park St	North Reading	1958
NRE.29	BP Gibbs Service Station	133 Park St	North Reading	1971
NRE.46	Eaton, James L. Hay and Grain Store	134 Park St	North Reading	1874
NRE.47	North Reading Baptist Parsonage	136 Park St	North Reading	1837
NRE.48	Howard, Charles Putnam House	140 Park St	North Reading	1840
NRE.49	Carpenter, Edward A. House	144 Park St	North Reading	1906
NRE.50	Turner, J. E. and Sons Paint Shop	146 Park St	North Reading	1929
NRE.51	McLane, Jared Brown House	148 Park St	North Reading	1818
NRE.1	North Reading Third Meetinghouse	155 Park St	North Reading	1829
NRE.52	North Reading Police and Fire Station	156 Park St	North Reading	1969
NRE.53	McDonnell, John House	158 Park St	North Reading	1889
NRE.54	Lew's Mobil Service Station	160 Park St	North Reading	1961
NRE.56	Foster, Edwin Store	162 Park St	North Reading	1842
NRE.57	Bay-Bank Middlesex Bank	168 Park St	North Reading	1973
NRE.58	Malden Cooperative Bank	172 Park St	North Reading	1965
NRE.59	U. S. Post Office - North Reading Branch	176 Park St	North Reading	1965
NRE.124	Flint, Hezekiah House	207 Park St	North Reading	1770

Inv. No.	Property Name	Street	Town	Year
NRE.125	Flint, Peter G. - Estes, Frederick J. House	219 Park St	North Reading	1806
NRE.126		251 Park St	North Reading	1910
NRE.127	Nichols - Batchelder Barn	251 Park St	North Reading	1870
NRE.128	Nichols, Warren - Batchelder, Elizabeth A. House	253 Park St	North Reading	1800
NRE.129	Buxton, Ebenezer - Sheldon, Samuel H. House	263-265 Park St	North Reading	1760
NRE.130	Buxton, Washington House	273 Park St	North Reading	1860
NRE.195	Eames, John E. House	369 Park St	North Reading	1835
NRE.196	Union National Store	373 Park St	North Reading	1840
NRE.197	Eames, Joseph - Jacques, Olive House	376 Park St	North Reading	1845
NRE.198	Batchelder - Beard, Eben House	379 Park St	North Reading	1792
NRE.199	Flint, Samuel - Bacheller, John House	382 Park St	North Reading	1850
NRE.62	Flint, George House	383 Park St	North Reading	1713
NRE.131	Frye, Joseph House	471 Park St	North Reading	1765
NRE.805	Frye - Travis - Forster Burial Ground	474 Park St	North Reading	1821
NRE.3	Stone, Rev. Eliab House	1 Peabody St	North Reading	1761
NRE.2	Batchelder, Leland Dennis Elementary School House	2 Peabody St	North Reading	1917
NRE.5	Peabody, James House	7 Peabody St	North Reading	1854
NRE.4	O'Brien, John House	10 Peabody St	North Reading	1857
NRE.6	Peabody, James W. Shoe Shop	12 Peabody St	North Reading	1867
NRE.8	Nichols, Agnes House	13 Peabody St	North Reading	1896
NRE.7	Peabody, James House	18 Peabody St	North Reading	1858
NRE.132		21 Riverside Dr	North Reading	1937
NRE.186		2 Upton Ave	North Reading	1906
NRE.187	Upton, Alanson Augustine House	7 Upton Ave	North Reading	1825
NRE.188	Upton, Henry A. House	10 Upton Ave	North Reading	1900
NRE.189	Frye, Joseph - Upton, Alanson Augustine House	11 Upton Ave	North Reading	1750
NRE.190	Upton, Alanson Augustine Slaughter House	12 Upton Ave	North Reading	1850
NRE.133	Upton, Alanson Augustine - Turner, T. Alfred House	7 Washington St	North Reading	1855
NRE.134	Dixon, John H. House and Shop	10 Washington St	North Reading	1850
NRE.135	Breed, Samuel P. House	11 Washington St	North Reading	1859
NRE.136	Morse, Alonzo House	13 Washington St	North Reading	1855
NRE.167	Crosby, John A. House	23 Washington St	North Reading	1895
NRE.168	Dutton, Ephraim B. House	24 Washington St	North Reading	1879
NRE.169	Carter - Buxton, S. House	5 Willow St	North Reading	1740
NRE.27	Cleveland, Mary E. - Burditt, Arthur A. House	19 Willow St	North Reading	1901
NRE.137	Weeks, George House	3 Winter St	North Reading	1935

Inv. No.	Property Name	Street	Town	Year
NRE.138	Garvin, Edward - Weeks, Mary T. House	5 Winter St	North Reading	1790
NRE.139	Weeks, Mary T. Barn	5 Winter St	North Reading	1880
NRE.140	Richardson, Roy E. Garage and Store	21 Winter St	North Reading	1924
NRE.141	Nichols, Richard House	25 Winter St	North Reading	1860

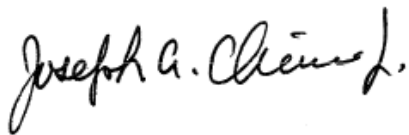
LABORATORY DATA
PACKAGES

ANALYTICAL REPORT

Job Number: 360-28452-1

Job Description: Roadway North Reading MA000547006400001

For:
ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford, MA 01824
Attention: Debra Stake



Approved for release.
Joe Chimi
Report Production Representative
6/7/10 12:56 PM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
06/07/2010

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 Southamptton Road, Westfield, MA 01085
Tel (413) 572-4000 Fax (413) 572-3707 www.testamericainc.com



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MADEP MCP Analytical Method Report Certification Form

Laboratory Name: TestAmerica Westfield	Project #: 360-28452-1																		
Project Location: Roadway N. Reading	MADEP RTN ¹ :																		
This form provides certifications for the following data set:[list Laboratory Sample ID Number(s)] 360-28452-(1-3)																			
Sample Matrices:	Groundwater Soil/Sediment Drinking Water Other:																		
MCP SW-846 Methods Used	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 16.6%;">8260B (x)</td> <td style="width: 16.6%;">8151A ()</td> <td style="width: 16.6%;">8330 ()</td> <td style="width: 16.6%;">6010B ()</td> <td style="width: 16.6%;">7470A/1A ()</td> <td style="width: 16.6%;">Other ()</td> </tr> <tr> <td>8270C ()</td> <td>8081A ()</td> <td>VPH ()</td> <td>6020 ()</td> <td colspan="2">9014M²/9012 ()</td> </tr> <tr> <td>8082 ()</td> <td>8021B ()</td> <td>EPH ()</td> <td>7000 S³ ()</td> <td>7196A ()</td> <td></td> </tr> </table>	8260B (x)	8151A ()	8330 ()	6010B ()	7470A/1A ()	Other ()	8270C ()	8081A ()	VPH ()	6020 ()	9014M ² /9012 ()		8082 ()	8021B ()	EPH ()	7000 S ³ ()	7196A ()	
	8260B (x)	8151A ()	8330 ()	6010B ()	7470A/1A ()	Other ()													
	8270C ()	8081A ()	VPH ()	6020 ()	9014M ² /9012 ()														
8082 ()	8021B ()	EPH ()	7000 S ³ ()	7196A ()															
As specified in MADEP Compendium of Analytical Methods. (check all that apply)	1 List Release Tracking Number (RTN), if known 2 M - SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method 3 S - SW-846 Methods 7000 Series List individual method and analyte.																		

An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes √	No ¹
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes √	No ¹
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, " Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes √	N/A No ¹
D	VPH and EPH methods only: Was the VPH or EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)?	Yes √	N/A No ¹

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes √	No ¹
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes √	N/A No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  Printed Name: <u>Christine Reynolds</u>	Position: <u>Quality Assurance Manager</u> Date: <u>6/7/10 12:54</u>
---	---

The certification form has been electronically signed and approved.

CAM VII A, Rev 3.2

April-04

 THE LEADER IN ENVIRONMENTAL TESTING	MADEP MA014 NY DOH 10843 RI DOH 57 CT DPH 0494 VT DECWSD	NELAP FL E87912 TOX NELAP NJ MA008 TOX NELAP NY 10843 NH DES 253901-A	TestAmerica Westfield 53 Southampton Rd, Westfield, MA 01085 Tel: (413) 572-4000 Fax: (413) 572-3707
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WI-QA-037

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Roadway North Reading MA000547006400001

Report Number: 360-28452-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/28/2010; the samples arrived in good condition, properly preserved without ice. The temperature of the coolers at receipt was 2.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2 C of the required temperature or method specified range. For samples with a specified temperature of 4 C, samples with a temperature ranging from just above freezing temperature of water to 6 C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

MCP regulatory standard criteria were specified for this report. Therefore, method reporting limits (RLs) were assessed against specific MCP standards as it pertains to Question "E" on the Presumptive Certainty Certification Form. If "NO" has been checked for this box, it could mean either the associated method QC failed to meet criteria or the reporting limit(s) for the method's analyte(s) exceeded the applicable MCP standard. (MADEP reference: WSC-CAM-AN-093008 - WSC-CAM Analytical Notes).

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 360-28452-1 through 360-28452-3 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/02/2010.

Acetone failed the recovery criteria low for LCS 360-59233/3 and LCSD 360-59233/4. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Lab Sample ID	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
Analyte						
360-28452-1	INFLUENT					
1,1,1-Trichloroethane		0.65	J	1.0	ug/L	8260B
1,1-Dichloroethane		1.0		1.0	ug/L	8260B
1,1-Dichloroethene		0.51	J	1.0	ug/L	8260B
1,2,3-Trichlorobenzene		4.6		1.0	ug/L	8260B
1,2,4-Trichlorobenzene		3.8		1.0	ug/L	8260B
1,2-Dichlorobenzene		0.56	J	1.0	ug/L	8260B
1,3-Dichlorobenzene		1.4		1.0	ug/L	8260B
cis-1,2-Dichloroethene		3.1		1.0	ug/L	8260B
Tetrachloroethene		130		1.0	ug/L	8260B
Trichloroethene		12		1.0	ug/L	8260B

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL WFD	SW846 8260B	
Purge and Trap	TAL WFD		SW846 5030B

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

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

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Method	Analyst	Analyst ID
SW846 8260B	Pham, Tam	TP

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-28452-1	Influent	Water	05/28/2010 0830	05/28/2010 1700
360-28452-2	Effluent	Water	05/28/2010 0845	05/28/2010 1700
360-28452-3	Trip Blank	Water	05/28/2010 0830	05/28/2010 1700

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Influent

Lab Sample ID: 360-28452-1

Client Matrix: Water

Date Sampled: 05/28/2010 0830

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V12393.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 2322		Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 2322			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	0.65	J	0.20	1.0
1,1,2,2-Tetrachloroethane	ND		0.20	0.50
1,1,2-Trichloroethane	ND		0.20	1.0
1,1-Dichloroethane	1.0		0.20	1.0
1,1-Dichloroethene	0.51	J	0.20	1.0
1,1-Dichloropropene	ND		0.20	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,3-Trichlorobenzene	4.6		0.20	1.0
1,2,4-Trichlorobenzene	3.8		0.20	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dichlorobenzene	0.56	J	0.20	1.0
1,2-Dichloroethane	ND		0.20	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	1.4		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		13	50
2,2-Dichloropropane	ND		0.20	1.0
2-Chlorotoluene	ND		0.20	1.0
2-Hexanone	ND		1.1	10
4-Chlorotoluene	ND		0.20	1.0
Acetone	ND	*	3.4	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.20	1.0
Bromomethane	ND		0.27	2.0
Carbon disulfide	ND		0.20	10
Carbon tetrachloride	ND		0.20	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
1,2-Dibromo-3-Chloropropane	ND		0.20	5.0
Chloroethane	ND		0.20	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.20	2.0
cis-1,2-Dichloroethene	3.1		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.20	0.40
m-Xylene & p-Xylene	ND		0.20	2.0
2-Butanone (MEK)	ND		1.6	10
4-Methyl-2-pentanone (MIBK)	ND		1.2	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Influent

Lab Sample ID: 360-28452-1

Date Sampled: 05/28/2010 0830

Client Matrix: Water

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V12393.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 2322		Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 2322			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
Naphthalene	ND		0.20	5.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
o-Xylene	ND		0.20	1.0
Styrene	ND		0.20	1.0
sec-Butylbenzene	ND		0.20	1.0
Tert-amyl methyl ether	ND		0.20	5.0
Tert-butyl ethyl ether	ND		0.20	5.0
Tetrachloroethene	130		0.20	1.0
Toluene	ND		0.20	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.20	0.40
Trichloroethene	12		0.20	1.0
Tetrahydrofuran	ND		1.6	10
Vinyl chloride	ND		0.20	0.50
1,2-Dichloropropane	ND		0.20	1.0
1,3-Dichloropropane	ND		0.20	1.0
Isopropylbenzene	ND		0.20	1.0
tert-Butylbenzene	ND		0.20	1.0
Isopropyl ether	ND		0.20	10
Trichlorofluoromethane	ND		0.20	1.0
4-Isopropyltoluene	ND		0.20	1.0
Ethyl ether	ND		0.20	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Effluent

Lab Sample ID: 360-28452-2

Date Sampled: 05/28/2010 0845

Client Matrix: Water

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V12392.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 2301		Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 2301			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.20	1.0
1,1,2,2-Tetrachloroethane	ND		0.20	0.50
1,1,2-Trichloroethane	ND		0.20	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.20	1.0
1,1-Dichloropropene	ND		0.20	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,3-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dichlorobenzene	ND		0.20	1.0
1,2-Dichloroethane	ND		0.20	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		13	50
2,2-Dichloropropane	ND		0.20	1.0
2-Chlorotoluene	ND		0.20	1.0
2-Hexanone	ND		1.1	10
4-Chlorotoluene	ND		0.20	1.0
Acetone	ND	*	3.4	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.20	1.0
Bromomethane	ND		0.27	2.0
Carbon disulfide	ND		0.20	10
Carbon tetrachloride	ND		0.20	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
1,2-Dibromo-3-Chloropropane	ND		0.20	5.0
Chloroethane	ND		0.20	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.20	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.20	0.40
m-Xylene & p-Xylene	ND		0.20	2.0
2-Butanone (MEK)	ND		1.6	10
4-Methyl-2-pentanone (MIBK)	ND		1.2	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Effluent

Lab Sample ID: 360-28452-2

Date Sampled: 05/28/2010 0845

Client Matrix: Water

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V12392.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 2301			Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 2301				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
Naphthalene	ND		0.20	5.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
o-Xylene	ND		0.20	1.0
Styrene	ND		0.20	1.0
sec-Butylbenzene	ND		0.20	1.0
Tert-amyl methyl ether	ND		0.20	5.0
Tert-butyl ethyl ether	ND		0.20	5.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.20	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.20	0.40
Trichloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		1.6	10
Vinyl chloride	ND		0.20	0.50
1,2-Dichloropropane	ND		0.20	1.0
1,3-Dichloropropane	ND		0.20	1.0
Isopropylbenzene	ND		0.20	1.0
tert-Butylbenzene	ND		0.20	1.0
Isopropyl ether	ND		0.20	10
Trichlorofluoromethane	ND		0.20	1.0
4-Isopropyltoluene	ND		0.20	1.0
Ethyl ether	ND		0.20	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-28452-3

Date Sampled: 05/28/2010 0830

Client Matrix: Water

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V12377.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 1732			Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 1732				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.20	1.0
1,1,2,2-Tetrachloroethane	ND		0.20	0.50
1,1,2-Trichloroethane	ND		0.20	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.20	1.0
1,1-Dichloropropene	ND		0.20	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,3-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dichlorobenzene	ND		0.20	1.0
1,2-Dichloroethane	ND		0.20	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		13	50
2,2-Dichloropropane	ND		0.20	1.0
2-Chlorotoluene	ND		0.20	1.0
2-Hexanone	ND		1.1	10
4-Chlorotoluene	ND		0.20	1.0
Acetone	ND	*	3.4	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.20	1.0
Bromomethane	ND		0.27	2.0
Carbon disulfide	ND		0.20	10
Carbon tetrachloride	ND		0.20	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
1,2-Dibromo-3-Chloropropane	ND		0.20	5.0
Chloroethane	ND		0.20	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.20	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.20	0.40
m-Xylene & p-Xylene	ND		0.20	2.0
2-Butanone (MEK)	ND		1.6	10
4-Methyl-2-pentanone (MIBK)	ND		1.2	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-28452-3

Date Sampled: 05/28/2010 0830

Client Matrix: Water

Date Received: 05/28/2010 1700

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-59233	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V12377.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	06/02/2010 1732		Final Weight/Volume:	5 mL
Date Prepared:	06/02/2010 1732			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
Naphthalene	ND		0.20	5.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
o-Xylene	ND		0.20	1.0
Styrene	ND		0.20	1.0
sec-Butylbenzene	ND		0.20	1.0
Tert-amyl methyl ether	ND		0.20	5.0
Tert-butyl ethyl ether	ND		0.20	5.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.20	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.20	0.40
Trichloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		1.6	10
Vinyl chloride	ND		0.20	0.50
1,2-Dichloropropane	ND		0.20	1.0
1,3-Dichloropropane	ND		0.20	1.0
Isopropylbenzene	ND		0.20	1.0
tert-Butylbenzene	ND		0.20	1.0
Isopropyl ether	ND		0.20	10
Trichlorofluoromethane	ND		0.20	1.0
4-Isopropyltoluene	ND		0.20	1.0
Ethyl ether	ND		0.20	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8 (Surr)	100		70 - 130

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Lab Section	Qualifier	Description
GC/MS 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.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:360-59233					
LCS 360-59233/3	Lab Control Sample	T	Water	8260B	
LCSD 360-59233/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 360-59233/6	Method Blank	T	Water	8260B	
360-28452-1	Influent	T	Water	8260B	
360-28452-2	Effluent	T	Water	8260B	
360-28452-3	Trip Blank	T	Water	8260B	

Report Basis

T = Total

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
360-28452-1	Influent	97	100	99
360-28452-2	Effluent	97	101	98
360-28452-3	Trip Blank	98	100	100
MB 360-59233/6		99	101	99
LCS 360-59233/3		103	97	100
LCSD 360-59233/4		102	98	100

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surr)	70-130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Method Blank - Batch: 360-59233

Method: 8260B Preparation: 5030B

Lab Sample ID: MB 360-59233/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1610
Date Prepared: 06/02/2010 1610

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12375.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.20	1.0
1,1,2,2-Tetrachloroethane	ND		0.20	0.50
1,1,2-Trichloroethane	ND		0.20	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.20	1.0
1,1-Dichloropropene	ND		0.20	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,3-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.20	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dichlorobenzene	ND		0.20	1.0
1,2-Dichloroethane	ND		0.20	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		13	50
2,2-Dichloropropane	ND		0.20	1.0
2-Chlorotoluene	ND		0.20	1.0
2-Hexanone	ND		1.1	10
4-Chlorotoluene	ND		0.20	1.0
Acetone	ND		3.4	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.20	1.0
Bromomethane	ND		0.27	2.0
Carbon disulfide	ND		0.20	10
Carbon tetrachloride	ND		0.20	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
1,2-Dibromo-3-Chloropropane	ND		0.20	5.0
Chloroethane	ND		0.20	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.20	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.20	0.40

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Method Blank - Batch: 360-59233

Method: 8260B Preparation: 5030B

Lab Sample ID: MB 360-59233/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1610
Date Prepared: 06/02/2010 1610

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12375.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
m-Xylene & p-Xylene	ND		0.20	2.0
2-Butanone (MEK)	ND		1.6	10
4-Methyl-2-pentanone (MIBK)	ND		1.2	10
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
Naphthalene	ND		0.20	5.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
o-Xylene	ND		0.20	1.0
Styrene	ND		0.20	1.0
sec-Butylbenzene	ND		0.20	1.0
Tert-amyl methyl ether	ND		0.20	5.0
Tert-butyl ethyl ether	ND		0.20	5.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.20	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.20	0.40
Trichloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		1.6	10
Vinyl chloride	ND		0.20	0.50
1,2-Dichloropropane	ND		0.20	1.0
1,3-Dichloropropane	ND		0.20	1.0
Isopropylbenzene	ND		0.20	1.0
tert-Butylbenzene	ND		0.20	1.0
Isopropyl ether	ND		0.20	10
Trichlorofluoromethane	ND		0.20	1.0
4-Isopropyltoluene	ND		0.20	1.0
Ethyl ether	ND		0.20	10
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	99	70 - 130		
Dibromofluoromethane	101	70 - 130		
Toluene-d8 (Surr)	99	70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-59233**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-59233/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1504
Date Prepared: 06/02/2010 1504

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12372.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-59233/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1526
Date Prepared: 06/02/2010 1526

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12373.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1,2-Tetrachloroethane	96	91	70 - 130	5	25		
1,1,1-Trichloroethane	91	84	70 - 130	8	25		
1,1,2,2-Tetrachloroethane	101	102	70 - 130	0	25		
1,1,2-Trichloroethane	105	103	70 - 130	2	25		
1,1-Dichloroethane	102	95	70 - 130	7	25		
1,1-Dichloroethene	92	84	70 - 130	9	25		
1,1-Dichloropropene	92	85	70 - 130	8	25		
1,2,3-Trichloropropane	113	110	70 - 130	2	25		
1,2,3-Trichlorobenzene	97	97	70 - 130	0	25		
1,2,4-Trichlorobenzene	98	96	70 - 130	1	25		
1,2,4-Trimethylbenzene	106	98	70 - 130	8	25		
1,2-Dichlorobenzene	98	95	70 - 130	3	25		
1,2-Dichloroethane	97	95	70 - 130	2	25		
1,3,5-Trimethylbenzene	106	99	70 - 130	7	25		
1,3-Dichlorobenzene	104	97	70 - 130	6	25		
1,4-Dichlorobenzene	100	98	70 - 130	2	25		
1,4-Dioxane	106	109	70 - 130	3	25		
2,2-Dichloropropane	107	100	70 - 130	7	25		
2-Chlorotoluene	103	96	70 - 130	7	25		
2-Hexanone	96	95	70 - 130	0	25		
4-Chlorotoluene	106	100	70 - 130	6	25		
Acetone	59	58	70 - 130	1	25	*	*
Benzene	102	96	70 - 130	6	25		
Bromobenzene	106	101	70 - 130	5	25		
Bromoform	106	106	70 - 130	0	25		
Bromomethane	115	108	70 - 130	6	25		
Carbon disulfide	94	86	70 - 130	9	25		
Carbon tetrachloride	92	86	70 - 130	7	25		
Chlorobenzene	101	95	70 - 130	6	25		
Chlorobromomethane	100	97	70 - 130	3	25		
Chlorodibromomethane	100	97	70 - 130	2	25		
1,2-Dibromo-3-Chloropropane	88	90	70 - 130	2	25		
Chloroethane	114	106	70 - 130	7	25		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-59233**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-59233/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1504
Date Prepared: 06/02/2010 1504

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12372.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-59233/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1526
Date Prepared: 06/02/2010 1526

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12373.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chloroform	95	90	70 - 130	5	25		
Chloromethane	104	96	70 - 130	7	25		
cis-1,2-Dichloroethene	103	97	70 - 130	7	25		
cis-1,3-Dichloropropene	97	93	70 - 130	4	25		
Dibromomethane	91	88	70 - 130	3	25		
Dichlorobromomethane	97	94	70 - 130	4	25		
Dichlorodifluoromethane	92	83	70 - 130	11	25		
Ethylbenzene	96	89	70 - 130	8	25		
Ethylene Dibromide	96	95	70 - 130	1	25		
Hexachlorobutadiene	97	93	70 - 130	4	25		
m-Xylene & p-Xylene	96	88	70 - 130	8	25		
2-Butanone (MEK)	87	86	70 - 130	1	25		
4-Methyl-2-pentanone (MIBK)	104	103	70 - 130	1	25		
Methyl tert-butyl ether	88	86	70 - 130	2	25		
Methylene Chloride	90	87	70 - 130	3	25		
Naphthalene	91	90	70 - 130	1	25		
n-Butylbenzene	99	93	70 - 130	6	25		
N-Propylbenzene	101	92	70 - 130	9	25		
o-Xylene	103	95	70 - 130	7	25		
Styrene	103	97	70 - 130	6	25		
sec-Butylbenzene	108	98	70 - 130	9	25		
Tert-amyl methyl ether	109	85	70 - 130	25	25		
Tert-butyl ethyl ether	101	98	70 - 130	3	25		
Tetrachloroethene	94	88	70 - 130	7	25		
Toluene	100	95	70 - 130	5	25		
trans-1,2-Dichloroethene	94	86	70 - 130	9	25		
trans-1,3-Dichloropropene	99	96	70 - 130	3	25		
Trichloroethene	95	88	70 - 130	7	25		
Tetrahydrofuran	111	110	70 - 130	1	25		
Vinyl chloride	113	103	70 - 130	9	25		
1,2-Dichloropropane	104	100	70 - 130	5	25		
1,3-Dichloropropane	105	103	70 - 130	2	25		
Isopropylbenzene	97	89	70 - 130	9	25		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-59233**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-59233/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1504
Date Prepared: 06/02/2010 1504

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12372.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-59233/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1526
Date Prepared: 06/02/2010 1526

Analysis Batch: 360-59233
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V12373.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
tert-Butylbenzene	107	98	70 - 130	9	25		
Isopropyl ether	93	89	70 - 130	4	25		
Trichlorofluoromethane	86	80	70 - 130	7	25		
4-Isopropyltoluene	103	94	70 - 130	9	25		
Ethyl ether	104	104	70 - 130	1	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	103		102		70 - 130		
Dibromofluoromethane	97		98		70 - 130		
Toluene-d8 (Surr)	100		100		70 - 130		

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New York (NELAC)	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)				NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P			
1103.1	E.coli					
Enterolert	Enterococcus					
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)		P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction					
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethanes		P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric		P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total		NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 360-28452-1

Login Number: 28452

List Source: TestAmerica Westfield

Creator: Worthington, Lisa A

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	2.6C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	trip blanks
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Chain of Custody Form

●53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
Westfield

●240 Bear Hill Rd., Suite 104
Waltham, MA 02451
(P) 781-466-6900
(F) 781-466-6901
Boston - Service Center

011957

Client: <u>Arcadis</u>		Client Project #: <u>MA000547006400001</u>		Job# <u>28452</u>		Quote#		PO#																			
Address: <u>2 Executive Dr #303</u> <u>Chelmsford MA 01824</u>		Site ID & State: <u>Roadway, N. Reading</u>		Shaded areas for office use		Comments (Special Instructions)																					
Phone: <u>978 937 9999</u> Fax: <u>978 937 7555</u>		Reports Sent To: <u>Debra Stake</u>																									
Email:		Email Rpt: ☐		Invoice same as Report to? ☐		Please print legibly. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.																					
Requested Turnaround Time (PLEASE SPECIFY)		Regulatory Programs/Presumptive Certainty/QC Forms		If Invoice contact or address different, note in Comments																							
STANDARD ☒ RUSH ☐ (Lab Approval Required)		MADEP MCP ☒ GW1/S1 ☐ PWS DEP Forms ☐ CTDEP RCP ☐ CT RSR ☐ EDD Required ☐ Std Rpt (L1) ☐ Rpt + QC(L2/MCP) ☐ CLP Rpt (L3 or L4) ☐		500-series for drinking water 600-series for wastewater, NPDES 6000-series for groundwater, soil, waste 8000-series for groundwater, soil, waste Use comments section to further define.		Comments:																					
Sample Type Codes: WW-Wastewater, DW-Drinking Water, SW-Surface Water, GW-Groundwater, LW Lab Water, A-Air, S-Solids/Soil O-Oil, "Z"- Other		Preservative																									
Sample I.D.		Sample Type	Sampler's Initials	Date Time Collected	pH (lab use only)	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	524 / 624 / 8260	525 / 625 / 8270	PCB / Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals (Please Specify)	Mercury	General Chemistry	Bacteriological	Toxicity	
Influent		GW	DC	5-28-10 0830		✓		4	G				✓				✓										
Effluent		GW	DC	5-28-10 0845		✓		4	G				✓				✓										
Trip Blank		LW	TA	5-28-10				2	G				✓				✓										
<i>ra 5/28/10</i>																											
Sampled by (print): <u>Diane Champagne</u>		Signature: <u>Diane Champagne</u>		Cooler ☒ Y / ☐ N		MADEP Requirement Samples Iced? ☒ Y / ☐ N																					
Relinquished by: <u>Diane Champagne</u> Date: <u>5/28/10</u> Time: <u>1100</u>		Received by: <u>Diane Champagne</u> Date: <u>5/28/10</u> Time: <u>1300</u>		Temp @ receipt: <u>2.6</u> °C																							
Relinquished by: <u>Diane Champagne</u> Date: <u>5/28/10</u> Time: <u>1300</u>		Received by: <u>Diane Champagne</u> Date: <u>5/28/10</u> Time: <u>1300</u>		Preservation / pH checked? ☒ Y / ☐ N																							
Relinquished by: <u>Diane Champagne</u> Date: <u>5-28-10</u> Time: <u>1700</u>		Received by: <u>Diane Champagne</u> Date: <u>5/28/10</u> Time: <u>1700</u>		By: <u>Diane Champagne</u> Date: <u>5/28/10</u>																							

TestAmerica Westfield

ANALYTICAL REPORT

Job Number: 360-30692-1

Job Description: Roadway North Reading

For:
ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford, MA 01824
Attention: Debra Stake



Approved for release.
James T Wickham
Technology Manager
10/27/2010 1:49 PM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
10/27/2010

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 Southamptton Road, Westfield, MA 01085
Tel (413) 572-4000 Fax (413) 572-3707 www.testamericainc.com



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MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Westfield** Project #: **360-30692-1**

Project Location: **Roadway N. Reading, MA** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

360-30692-(1-4)

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A ☒	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	332.0 Perchlorate CAM VIII B ☐	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

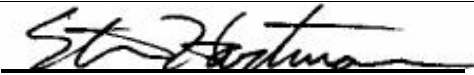
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ☒ No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes ☒ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	☒ Yes ☐ No

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature:  Position: Laboratory Director

Printed Name: Steven C. Hartmann Date: 10/27/10 13:48

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Roadway North Reading

Report Number: 360-30692-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

TestAmerica's Reporting Limits (RLs) for this report may not always meet WSC-CAM-III method reporting limits due to various reasons such as methodology, dilutions or moisture content (soils). TestAmerica's MA pivot table EDD documents which compound(s) exceed certain regulatory standards. If not included with your deliverables, please contact your Project Manager about the availability of this EDD for your report.

RECEIPT

The samples were received on 10/19/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples Influent (360-30692-1), Post As (360-30692-2), Effluent (360-30692-3) and Trip Blank (360-30692-4) were analyzed for volatile organic compounds (GC-MS) in accordance with SW846 8260C. The samples were analyzed on 10/21/2010 and 10/26/2010.

Methylene Chloride was detected in method blank MB 360-64923/6 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.

1,4-Dioxane and 2,2-Dichloropropane failed the recovery criteria high for LCS/LCSD 360-64729/3. Refer to the QC report for details.

For samples 360-30692-(1-4), the continuing calibration verification (CCV) for analytical batch 64729 exceeded control criteria for DCDFM(low), 2,2-Dichloropropane(high), 111-Trichloroethane(high), 1,4-Dioxane(high), and hexachlorobutadiene(high).

General method information:

Sample Influent (360-30692-1)[1X,10X] required dilution prior to analysis due to a high target compound. The reporting limits have been adjusted accordingly.

The calibration curve uses quadratic regressions for Bromomethane, Bromoform, 1,2-Dibromo-3-Chloropropane.

No other difficulties were encountered during the volatile organic compounds (GC-MS) analyses.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
360-30692-1	INFLUENT				
1,1,1-Trichloroethane		1.0	1.0	ug/L	8260C
1,1-Dichloroethane		0.65 J	1.0	ug/L	8260C
1,2,3-Trichlorobenzene		2.8	1.0	ug/L	8260C
1,2,4-Trichlorobenzene		1.5	1.0	ug/L	8260C
1,2-Dichlorobenzene		1.6	1.0	ug/L	8260C
1,3-Dichlorobenzene		2.0	1.0	ug/L	8260C
1,4-Dichlorobenzene		1.4	1.0	ug/L	8260C
Chlorobenzene		0.79 J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.1	1.0	ug/L	8260C
Tetrachloroethene		130	10	ug/L	8260C
Trichloroethene		11	1.0	ug/L	8260C

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL WFD	MA DEP 8260C	
Purge and Trap	TAL WFD		SW846 5030C

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

MA DEP = Massachusetts Department Of Environmental Protection

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

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Method	Analyst	Analyst ID
MA DEP 8260C	Pham, Tam	TP
MA DEP 8260C	Rouleau, Catherine M	CMR

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-30692-1	Influent	Water	10/18/2010 1315	10/19/2010 1750
360-30692-2	Post As	Water	10/18/2010 1325	10/19/2010 1750
360-30692-3	Effluent	Water	10/18/2010 1335	10/19/2010 1750
360-30692-4	Trip Blank	Water	10/18/2010 1315	10/19/2010 1750

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Influent

Lab Sample ID: 360-30692-1

Date Sampled: 10/18/2010 1315

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11108.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1823		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1823			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	1.0		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	0.65	J	0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	2.8		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	1.5		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	1.6		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	2.0		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	1.4		0.20	1.0
1,4-Dioxane	ND	*	10	50
2,2-Dichloropropane	ND	*	0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	0.79	J	0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	2.1		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Influent

Lab Sample ID: 360-30692-1

Date Sampled: 10/18/2010 1315

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11108.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1823		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1823			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	11		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86		70 - 130
Dibromofluoromethane	116		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Influent

Lab Sample ID: 360-30692-1

Date Sampled: 10/18/2010 1315

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64923	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V14921.D
Dilution:	10		Initial Weight/Volume:	5 mL
Date Analyzed:	10/26/2010 1456	Run Type: RADL	Final Weight/Volume:	5 mL
Date Prepared:	10/26/2010 1456			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Tetrachloroethene	130		2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	101		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Post As

Lab Sample ID: 360-30692-2

Date Sampled: 10/18/2010 1325

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11106.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1738		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1738			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND	*	10	50
2,2-Dichloropropane	ND	*	0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Post As

Lab Sample ID: 360-30692-2

Date Sampled: 10/18/2010 1325

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11106.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1738		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1738			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	92		70 - 130
Dibromofluoromethane	119		70 - 130
Toluene-d8 (Surr)	91		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Effluent

Lab Sample ID: 360-30692-3

Date Sampled: 10/18/2010 1335

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11107.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1800		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1800			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND	*	10	50
2,2-Dichloropropane	ND	*	0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Effluent

Lab Sample ID: 360-30692-3

Date Sampled: 10/18/2010 1335

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C		Lab File ID:	V11107.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1800		Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1800			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89		70 - 130
Dibromofluoromethane	115		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-30692-4

Date Sampled: 10/18/2010 1315

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch:	360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C			Lab File ID:	V11105.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1715			Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1715				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND	*	10	50
2,2-Dichloropropane	ND	*	0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-30692-4

Date Sampled: 10/18/2010 1315

Client Matrix: Water

Date Received: 10/19/2010 1750

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch:	360-64729	Instrument ID:	HP #3 GC/MS
Preparation:	5030C			Lab File ID:	V11105.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	10/21/2010 1715			Final Weight/Volume:	5 mL
Date Prepared:	10/21/2010 1715				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89		70 - 130
Dibromofluoromethane	123		70 - 130
Toluene-d8 (Surr)	100		70 - 130

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Lab Section	Qualifier	Description
GC/MS 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.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:360-64729					
LCS 360-64729/3	Lab Control Sample	T	Water	8260C	
LCSD 360-64729/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 360-64729/6	Method Blank	T	Water	8260C	
360-30692-1	Influent	T	Water	8260C	
360-30692-2	Post As	T	Water	8260C	
360-30692-3	Effluent	T	Water	8260C	
360-30692-4	Trip Blank	T	Water	8260C	
Analysis Batch:360-64923					
LCS 360-64923/3	Lab Control Sample	T	Water	8260C	
LCSD 360-64923/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 360-64923/6	Method Blank	T	Water	8260C	
360-30692-1RADL	Influent	T	Water	8260C	

Report Basis

T = Total

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Surrogate Recovery Report**8260C Volatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
360-30692-1 RADL	Influent RADL	101	101	100
360-30692-1	Influent	86	116	99
360-30692-2	Post As	92	119	91
360-30692-3	Effluent	89	115	98
360-30692-4	Trip Blank	89	123	100
MB 360-64729/6		94	119	92
MB 360-64923/6		100	99	102
LCS 360-64729/3		97	108	102
LCS 360-64923/3		96	101	104
LCSD 360-64729/4		106	107	99
LCSD 360-64923/4		97	101	103

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surr)	70-130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Method Blank - Batch: 360-64729

Method: 8260C

Preparation: 5030C

Lab Sample ID: MB 360-64729/6

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 10/21/2010 1541

Date Prepared: 10/21/2010 1541

Analysis Batch: 360-64729

Prep Batch: N/A

Units: ug/L

Instrument ID: HP #3 GC/MS

Lab File ID: V11104.D

Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Method Blank - Batch: 360-64729

Method: 8260C
Preparation: 5030C

Lab Sample ID: MB 360-64729/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1541
Date Prepared: 10/21/2010 1541

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11104.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	94	70 - 130		
Dibromofluoromethane	119	70 - 130		
Toluene-d8 (Surr)	92	70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64729**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64729/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1435
Date Prepared: 10/21/2010 1435

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11101.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64729/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1457
Date Prepared: 10/21/2010 1457

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11102.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1,2-Tetrachloroethane	110	113	70 - 130	2	20		
1,1,1-Trichloroethane	127	121	70 - 130	5	20		
1,1,2,2-Tetrachloroethane	89	85	70 - 130	5	20		
1,1,2-Trichloroethane	107	100	70 - 130	7	20		
1,1-Dichloroethane	104	102	70 - 130	1	20		
1,1-Dichloroethene	109	105	70 - 130	4	20		
1,1-Dichloropropene	106	102	70 - 130	4	20		
1,2,3-Trichlorobenzene	104	108	70 - 130	4	20		
1,2,3-Trichloropropane	112	110	70 - 130	2	20		
1,2,4-Trichlorobenzene	106	106	70 - 130	0	20		
1,2,4-Trimethylbenzene	98	104	70 - 130	7	20		
1,2-Dibromo-3-Chloropropane	86	86	70 - 130	1	20		
1,2-Dichlorobenzene	101	97	70 - 130	4	20		
1,2-Dichloroethane	119	114	70 - 130	4	20		
1,2-Dichloropropane	102	97	70 - 130	6	20		
1,3,5-Trimethylbenzene	101	102	70 - 130	1	20		
1,3-Dichlorobenzene	115	121	70 - 130	5	20		
1,3-Dichloropropane	106	103	70 - 130	2	20		
1,4-Dichlorobenzene	100	102	70 - 130	2	20		
1,4-Dioxane	168	139	70 - 130	19	20	*	*
2,2-Dichloropropane	140	140	70 - 130	0	20	*	*
2-Butanone (MEK)	83	78	70 - 130	6	20		
2-Chlorotoluene	107	109	70 - 130	2	20		
2-Hexanone	95	85	70 - 130	11	20		
4-Chlorotoluene	103	105	70 - 130	2	20		
4-Isopropyltoluene	100	106	70 - 130	6	20		
4-Methyl-2-pentanone (MIBK)	101	90	70 - 130	12	20		
Acetone	96	93	70 - 130	3	20		
Benzene	102	98	70 - 130	4	20		
Bromobenzene	103	104	70 - 130	1	20		
Bromoform	97	93	70 - 130	4	20		
Bromomethane	104	113	70 - 130	9	20		
Carbon disulfide	109	103	70 - 130	6	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64729**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64729/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1435
Date Prepared: 10/21/2010 1435

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11101.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64729/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1457
Date Prepared: 10/21/2010 1457

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11102.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Carbon tetrachloride	121	117	70 - 130	4	20		
Chlorobenzene	104	100	70 - 130	4	20		
Chlorobromomethane	108	108	70 - 130	1	20		
Chlorodibromomethane	113	110	70 - 130	2	20		
Chloroethane	105	114	70 - 130	8	20		
Chloroform	111	108	70 - 130	2	20		
Chloromethane	105	105	70 - 130	0	20		
cis-1,2-Dichloroethene	105	101	70 - 130	4	20		
cis-1,3-Dichloropropene	111	102	70 - 130	9	20		
Dibromomethane	108	105	70 - 130	2	20		
Dichlorobromomethane	120	113	70 - 130	5	20		
Dichlorodifluoromethane	109	102	70 - 130	6	20		
Ethyl ether	103	108	70 - 130	5	20		
Ethylbenzene	104	101	70 - 130	2	20		
Ethylene Dibromide	106	96	70 - 130	10	20		
Hexachlorobutadiene	110	106	70 - 130	4	20		
Isopropyl ether	93	91	70 - 130	2	20		
Isopropylbenzene	98	100	70 - 130	2	20		
m-Xylene & p-Xylene	95	96	70 - 130	0	20		
Methyl tert-butyl ether	108	111	70 - 130	3	20		
Methylene Chloride	105	104	70 - 130	1	20		
n-Butylbenzene	92	92	70 - 130	0	20		
N-Propylbenzene	98	100	70 - 130	1	20		
Naphthalene	85	84	70 - 130	1	20		
o-Xylene	91	90	70 - 130	1	20		
sec-Butylbenzene	105	105	70 - 130	0	20		
Styrene	97	96	70 - 130	0	20		
Tert-amyl methyl ether	106	107	70 - 130	0	20		
Tert-butyl ethyl ether	111	107	70 - 130	3	20		
tert-Butylbenzene	101	101	70 - 130	0	20		
Tetrachloroethene	123	110	70 - 130	11	20		
Tetrahydrofuran	105	95	70 - 130	9	20		
Toluene	105	97	70 - 130	8	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64729**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64729/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1435
Date Prepared: 10/21/2010 1435

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11101.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64729/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/21/2010 1457
Date Prepared: 10/21/2010 1457

Analysis Batch: 360-64729
Prep Batch: N/A
Units: ug/L

Instrument ID: HP #3 GC/MS
Lab File ID: V11102.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
trans-1,2-Dichloroethene	100	95	70 - 130	5	20		
trans-1,3-Dichloropropene	113	101	70 - 130	11	20		
Trichloroethene	106	101	70 - 130	5	20		
Trichlorofluoromethane	126	125	70 - 130	0	20		
Vinyl chloride	99	97	70 - 130	2	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	97		106		70 - 130		
Dibromofluoromethane	108		107		70 - 130		
Toluene-d8 (Surr)	102		99		70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Method Blank - Batch: 360-64923

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-64923/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1406
Date Prepared: 10/26/2010 1406

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14920.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Method Blank - Batch: 360-64923

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-64923/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1406
Date Prepared: 10/26/2010 1406

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14920.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	0.568	J	0.20	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	100	70 - 130		
Dibromofluoromethane	99	70 - 130		
Toluene-d8 (Surr)	102	70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64923**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64923/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1300
Date Prepared: 10/26/2010 1300

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14917.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64923/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1322
Date Prepared: 10/26/2010 1322

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14918.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1,2-Tetrachloroethane	92	90	70 - 130	2	20		
1,1,1-Trichloroethane	103	96	70 - 130	6	20		
1,1,2,2-Tetrachloroethane	103	103	70 - 130	0	20		
1,1,2-Trichloroethane	104	103	70 - 130	0	20		
1,1-Dichloroethane	101	97	70 - 130	4	20		
1,1-Dichloroethene	98	90	70 - 130	9	20		
1,1-Dichloropropene	102	97	70 - 130	6	20		
1,2,3-Trichlorobenzene	104	106	70 - 130	1	20		
1,2,3-Trichloropropane	99	100	70 - 130	1	20		
1,2,4-Trichlorobenzene	110	108	70 - 130	1	20		
1,2,4-Trimethylbenzene	101	97	70 - 130	4	20		
1,2-Dibromo-3-Chloropropane	100	101	70 - 130	0	20		
1,2-Dichlorobenzene	104	102	70 - 130	1	20		
1,2-Dichloroethane	101	100	70 - 130	1	20		
1,2-Dichloropropane	103	100	70 - 130	3	20		
1,3,5-Trimethylbenzene	101	97	70 - 130	4	20		
1,3-Dichlorobenzene	106	104	70 - 130	2	20		
1,3-Dichloropropane	106	105	70 - 130	0	20		
1,4-Dichlorobenzene	105	102	70 - 130	2	20		
1,4-Dioxane	107	100	70 - 130	7	20		
2,2-Dichloropropane	96	89	70 - 130	7	20		
2-Butanone (MEK)	106	105	70 - 130	1	20		
2-Chlorotoluene	102	100	70 - 130	2	20		
2-Hexanone	104	104	70 - 130	1	20		
4-Chlorotoluene	103	100	70 - 130	3	20		
4-Isopropyltoluene	108	103	70 - 130	4	20		
4-Methyl-2-pentanone (MIBK)	105	104	70 - 130	0	20		
Acetone	95	96	70 - 130	1	20		
Benzene	101	96	70 - 130	5	20		
Bromobenzene	100	99	70 - 130	1	20		
Bromoform	98	96	70 - 130	2	20		
Bromomethane	94	90	70 - 130	3	20		
Carbon disulfide	110	103	70 - 130	7	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64923**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64923/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1300
Date Prepared: 10/26/2010 1300

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14917.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64923/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1322
Date Prepared: 10/26/2010 1322

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14918.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Carbon tetrachloride	110	102	70 - 130	8	20		
Chlorobenzene	102	99	70 - 130	3	20		
Chlorobromomethane	103	101	70 - 130	3	20		
Chlorodibromomethane	100	97	70 - 130	2	20		
Chloroethane	98	92	70 - 130	6	20		
Chloroform	99	95	70 - 130	4	20		
Chloromethane	90	85	70 - 130	6	20		
cis-1,2-Dichloroethene	102	98	70 - 130	3	20		
cis-1,3-Dichloropropene	90	87	70 - 130	4	20		
Dibromomethane	101	98	70 - 130	2	20		
Dichlorobromomethane	94	92	70 - 130	2	20		
Dichlorodifluoromethane	93	87	70 - 130	7	20		
Ethyl ether	100	99	70 - 130	1	20		
Ethylbenzene	102	98	70 - 130	4	20		
Ethylene Dibromide	105	103	70 - 130	2	20		
Hexachlorobutadiene	93	88	70 - 130	5	20		
Isopropyl ether	98	96	70 - 130	2	20		
Isopropylbenzene	102	98	70 - 130	4	20		
m-Xylene & p-Xylene	100	97	70 - 130	3	20		
Methyl tert-butyl ether	99	97	70 - 130	3	20		
Methylene Chloride	99	97	70 - 130	2	20		
n-Butylbenzene	107	103	70 - 130	3	20		
N-Propylbenzene	103	100	70 - 130	4	20		
Naphthalene	100	101	70 - 130	1	20		
o-Xylene	99	96	70 - 130	4	20		
sec-Butylbenzene	103	98	70 - 130	5	20		
Styrene	98	96	70 - 130	2	20		
Tert-amyl methyl ether	95	93	70 - 130	2	20		
Tert-butyl ethyl ether	100	98	70 - 130	2	20		
tert-Butylbenzene	102	99	70 - 130	4	20		
Tetrachloroethene	110	104	70 - 130	6	20		
Tetrahydrofuran	104	105	70 - 130	1	20		
Toluene	102	97	70 - 130	5	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-64923**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-64923/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1300
Date Prepared: 10/26/2010 1300

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14917.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-64923/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/26/2010 1322
Date Prepared: 10/26/2010 1322

Analysis Batch: 360-64923
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V14918.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
trans-1,2-Dichloroethene	101	96	70 - 130	5	20		
trans-1,3-Dichloropropene	92	89	70 - 130	3	20		
Trichloroethene	102	97	70 - 130	5	20		
Trichlorofluoromethane	102	95	70 - 130	8	20		
Vinyl chloride	89	84	70 - 130	6	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	96		97		70 - 130		
Dibromofluoromethane	101		101		70 - 130		
Toluene-d8 (Surr)	104		103		70 - 130		

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New Hampshire (NELAC) prim.	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P			
1103.1	E.coli		ambient/ source			
Enterolert	Enterococcus					
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction	SW				
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethane compounds	P	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric	P	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pinsky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total	P	NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 360-30692-1

Login Number: 30692

List Source: TestAmerica Westfield

Creator: Beaumier, Janine E

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

011194

Westfield

Boston - Service Center

TestAmerica Westfield

ANALYTICAL REPORT

Job Number: 360-30974-1

Job Description: Roadway North Reading

For:
ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford, MA 01824
Attention: Debra Stake



Approved for release.
Joe Chimi
Report Production Representative
11/12/10 10:30 AM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
11/12/2010

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 Southamptn Road, Westfield, MA 01085

Tel (413) 572-4000 Fax (413) 572-3707 www.testamericainc.com



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MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Westfield** Project #: **360-30974-1**

Project Location: **Roadway N. Reading** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

360-30974-(1-4)

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A ☒	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	332.0 Perchlorate CAM VIII B ☐	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

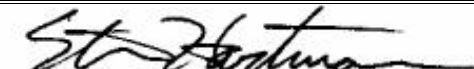
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ☒ No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes ☒ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	☒ Yes ☐ No

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature:  Position: Laboratory Director

Printed Name: Steven C. Hartmann Date: 11/12/10 10:23

This form has been electronically signed and approved

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Roadway North Reading

Report Number: 360-30974-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/04/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2 C of the required temperature or method specified range. For samples with a specified temperature of 4 C, samples with a temperature ranging from just above freezing temperature of water to 6 C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TestAmerica's Reporting Limits (RLs) for this report do not meet WSC-CAM-III method reporting limits due to various reasons such as methodology, dilutions or moisture content (soils). TestAmerica's MA pivot table EDD documents which compound(s) exceed certain regulatory standards. If not included with your deliverables, please contact your Project Manager about the availability of this EDD for your report.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples Influent (360-30974-1), Post As (360-30974-2), Effluent (360-30974-3) and Trip Blank (360-30974-4) were analyzed for volatile organic compounds (GC-MS) in accordance with SW846 8260C. The samples were analyzed on 11/05/2010, 11/06/2010 and 11/09/2010.

Acetone and Carbon disulfide failed the recovery criteria high for LCS 360-65621/3. Acetone failed the recovery criteria high for LCSD 360-65621/4. Refer to the QC report for details.

For batch 360-65529, 2,2-Dichloropropane, Dichlorodifluoromethane and Hexachlorobutadiene failed the CCV criteria low; Acetone failed the criteria high. The response factor for Tetrachloroethene was less than 0.2 but greater than the CAM minimum 0.05. The response factor for 1,3-Dichlorobenzene was less than 0.6 but greater than the CAM minimum 0.05. For batch 360-65621, 1,1,2,2-Tetrachloroethane, 2-Butanone (MEK), Acetone, Bromoform, Carbon disulfide, Carbon tetrachloride, Methylene Chloride, n-Butylbenzene and Tetrahydrofuran failed the CCV criteria high. The response factor for Tetrachloroethene was less than 0.2 but greater than the CAM minimum 0.05.

The calibration curve used quadratic regression for Bromoform, Bromomethane and 1,2-Dibromo-3-Chloropropane.

No other difficulties were encountered during the volatile organic compounds (GC-MS) analyses.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
360-30974-1	INFLUENT					
1,1-Dichloroethane		0.87	J	1.0	ug/L	8260C
1,2,3-Trichlorobenzene		1.9		1.0	ug/L	8260C
1,2,4-Trichlorobenzene		0.82	J	1.0	ug/L	8260C
1,2-Dichlorobenzene		0.68	J	1.0	ug/L	8260C
1,3-Dichlorobenzene		1.8		1.0	ug/L	8260C
1,4-Dichlorobenzene		0.62	J	1.0	ug/L	8260C
Chlorobenzene		0.29	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		3.0		1.0	ug/L	8260C
Tetrachloroethene		110		1.0	ug/L	8260C
Trichloroethene		12		1.0	ug/L	8260C
360-30974-4	TRIP BLANK					
Chlorobenzene		0.28	J	1.0	ug/L	8260C
Methylene Chloride		1.1	J	2.0	ug/L	8260C

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Volatile Organic Compounds (GC/MS)		TAL WFD	MA DEP 8260C	
Purge and Trap		TAL WFD		SW846 5030C

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

MA DEP = Massachusetts Department Of Environmental Protection

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

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Method	Analyst	Analyst ID
MA DEP 8260C	Pham, Tam	TP

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-30974-1	Influent	Water	11/04/2010 0915	11/04/2010 1550
360-30974-2	Post As	Water	11/04/2010 0920	11/04/2010 1550
360-30974-3	Effluent	Water	11/04/2010 0925	11/04/2010 1550
360-30974-4	Trip Blank	Water	11/04/2010 0915	11/04/2010 1550

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Influent

Lab Sample ID: 360-30974-1

Client Matrix: Water

Date Sampled: 11/04/2010 0915

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65621	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15348.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/09/2010 1542		Final Weight/Volume:	5 mL
Date Prepared:	11/09/2010 1542			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	0.87	J	0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	1.9		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	0.82	J	0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	0.68	J	0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	1.8		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	0.62	J	0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND	*	16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND	*	0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	0.29	J	0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	3.0		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Influent

Lab Sample ID: 360-30974-1

Date Sampled: 11/04/2010 0915

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65621	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15348.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/09/2010 1542		Final Weight/Volume:	5 mL
Date Prepared:	11/09/2010 1542			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	110		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	12		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	100		70 - 130
Dibromofluoromethane	107		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Post As

Lab Sample ID: 360-30974-2

Date Sampled: 11/04/2010 0920

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch:	360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C			Lab File ID:	V15299.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/06/2010 0104			Final Weight/Volume:	5 mL
Date Prepared:	11/06/2010 0104				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Post As

Lab Sample ID: 360-30974-2

Date Sampled: 11/04/2010 0920

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15299.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/06/2010 0104		Final Weight/Volume:	5 mL
Date Prepared:	11/06/2010 0104			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	103		70 - 130
Dibromofluoromethane	107		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Effluent

Lab Sample ID: 360-30974-3

Date Sampled: 11/04/2010 0925

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15300.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/06/2010 0126		Final Weight/Volume:	5 mL
Date Prepared:	11/06/2010 0126			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Effluent

Lab Sample ID: 360-30974-3

Date Sampled: 11/04/2010 0925

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15300.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/06/2010 0126		Final Weight/Volume:	5 mL
Date Prepared:	11/06/2010 0126			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	99		70 - 130
Dibromofluoromethane	104		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-30974-4

Date Sampled: 11/04/2010 0915

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch:	360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C			Lab File ID:	V15289.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/05/2010 2126			Final Weight/Volume:	5 mL
Date Prepared:	11/05/2010 2126				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	0.28	J	0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-30974-4

Date Sampled: 11/04/2010 0915

Client Matrix: Water

Date Received: 11/04/2010 1550

8260C Volatile Organic Compounds (GC/MS)

Method:	8260C	Analysis Batch: 360-65529	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030C		Lab File ID:	V15289.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	11/05/2010 2126		Final Weight/Volume:	5 mL
Date Prepared:	11/05/2010 2126			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	1.1	J	1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	101		70 - 130
Dibromofluoromethane	105		70 - 130
Toluene-d8 (Surr)	98		70 - 130

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Lab Section	Qualifier	Description
GC/MS 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.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:360-65529					
LCS 360-65529/3	Lab Control Sample	T	Water	8260C	
LCSD 360-65529/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 360-65529/6	Method Blank	T	Water	8260C	
360-30974-2	Post As	T	Water	8260C	
360-30974-3	Effluent	T	Water	8260C	
360-30974-4	Trip Blank	T	Water	8260C	
Analysis Batch:360-65621					
LCS 360-65621/3	Lab Control Sample	T	Water	8260C	
LCSD 360-65621/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 360-65621/6	Method Blank	T	Water	8260C	
360-30974-1	Influent	T	Water	8260C	

Report Basis

T = Total

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Surrogate Recovery Report**8260C Volatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
360-30974-1	Influent	100	107	99
360-30974-2	Post As	103	107	98
360-30974-3	Effluent	99	104	101
360-30974-4	Trip Blank	101	105	98
MB 360-65529/6		100	104	99
MB 360-65621/6		101	106	97
LCS 360-65529/3		97	104	102
LCS 360-65621/3		100	106	102
LCSD 360-65529/4		99	105	101
LCSD 360-65621/4		99	106	105

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surr)	70-130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Method Blank - Batch: 360-65529

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-65529/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2104
Date Prepared: 11/05/2010 2104

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15288.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Method Blank - Batch: 360-65529

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-65529/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2104
Date Prepared: 11/05/2010 2104

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15288.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	100	70 - 130		
Dibromofluoromethane	104	70 - 130		
Toluene-d8 (Surr)	99	70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65529**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65529/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1958
Date Prepared: 11/05/2010 1958

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15285.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65529/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2020
Date Prepared: 11/05/2010 2020

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15286.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1,2-Tetrachloroethane	87	86	70 - 130	1	20		
1,1,1-Trichloroethane	95	95	70 - 130	0	20		
1,1,2,2-Tetrachloroethane	108	107	70 - 130	0	20		
1,1,2-Trichloroethane	103	101	70 - 130	2	20		
1,1-Dichloroethane	101	99	70 - 130	2	20		
1,1-Dichloroethene	91	90	70 - 130	1	20		
1,1-Dichloropropene	103	98	70 - 130	5	20		
1,2,3-Trichlorobenzene	78	78	70 - 130	0	20		
1,2,3-Trichloropropane	96	96	70 - 130	0	20		
1,2,4-Trichlorobenzene	84	84	70 - 130	0	20		
1,2,4-Trimethylbenzene	97	95	70 - 130	3	20		
1,2-Dibromo-3-Chloropropane	85	87	70 - 130	2	20		
1,2-Dichlorobenzene	99	98	70 - 130	2	20		
1,2-Dichloroethane	105	103	70 - 130	2	20		
1,2-Dichloropropane	104	103	70 - 130	2	20		
1,3,5-Trimethylbenzene	97	93	70 - 130	4	20		
1,3-Dichlorobenzene	90	93	70 - 130	3	20		
1,3-Dichloropropane	104	104	70 - 130	0	20		
1,4-Dichlorobenzene	101	98	70 - 130	3	20		
1,4-Dioxane	95	95	70 - 130	1	20		
2,2-Dichloropropane	74	75	70 - 130	2	20		
2-Butanone (MEK)	112	112	70 - 130	0	20		
2-Chlorotoluene	100	98	70 - 130	2	20		
2-Hexanone	104	106	70 - 130	2	20		
4-Chlorotoluene	100	98	70 - 130	2	20		
4-Isopropyltoluene	98	93	70 - 130	4	20		
4-Methyl-2-pentanone (MIBK)	111	113	70 - 130	1	20		
Acetone	127	129	70 - 130	2	20		
Benzene	101	100	70 - 130	1	20		
Bromobenzene	101	99	70 - 130	2	20		
Bromoform	107	107	70 - 130	0	20		
Bromomethane	88	86	70 - 130	3	20		
Carbon disulfide	104	111	70 - 130	6	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65529**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65529/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1958
Date Prepared: 11/05/2010 1958

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15285.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65529/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2020
Date Prepared: 11/05/2010 2020

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15286.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Carbon tetrachloride	104	101	70 - 130	3	20		
Chlorobenzene	99	98	70 - 130	1	20		
Chlorobromomethane	98	98	70 - 130	0	20		
Chlorodibromomethane	98	98	70 - 130	0	20		
Chloroethane	96	97	70 - 130	1	20		
Chloroform	100	98	70 - 130	3	20		
Chloromethane	92	92	70 - 130	0	20		
cis-1,2-Dichloroethene	102	101	70 - 130	2	20		
cis-1,3-Dichloropropene	88	85	70 - 130	2	20		
Dibromomethane	103	105	70 - 130	1	20		
Dichlorobromomethane	97	94	70 - 130	2	20		
Dichlorodifluoromethane	86	83	70 - 130	3	20		
Ethyl ether	99	100	70 - 130	2	20		
Ethylbenzene	100	100	70 - 130	0	20		
Ethylene Dibromide	99	98	70 - 130	1	20		
Hexachlorobutadiene	72	70	70 - 130	3	20		
Isopropyl ether	103	102	70 - 130	1	20		
Isopropylbenzene	98	95	70 - 130	3	20		
m-Xylene & p-Xylene	100	95	70 - 130	5	20		
Methyl tert-butyl ether	96	97	70 - 130	1	20		
Methylene Chloride	96	98	70 - 130	2	20		
n-Butylbenzene	106	100	70 - 130	5	20		
N-Propylbenzene	100	97	70 - 130	3	20		
Naphthalene	81	82	70 - 130	1	20		
o-Xylene	98	95	70 - 130	3	20		
sec-Butylbenzene	97	93	70 - 130	5	20		
Styrene	95	93	70 - 130	2	20		
Tert-amyl methyl ether	87	87	70 - 130	1	20		
Tert-butyl ethyl ether	97	97	70 - 130	1	20		
tert-Butylbenzene	93	89	70 - 130	4	20		
Tetrachloroethene	99	93	70 - 130	5	20		
Tetrahydrofuran	116	117	70 - 130	1	20		
Toluene	97	94	70 - 130	3	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65529**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65529/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1958
Date Prepared: 11/05/2010 1958

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15285.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65529/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2020
Date Prepared: 11/05/2010 2020

Analysis Batch: 360-65529
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15286.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
trans-1,2-Dichloroethene	102	99	70 - 130	3	20		
trans-1,3-Dichloropropene	84	81	70 - 130	3	20		
Trichloroethene	102	99	70 - 130	2	20		
Trichlorofluoromethane	99	98	70 - 130	1	20		
Vinyl chloride	86	85	70 - 130	2	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	97		99		70 - 130		
Dibromofluoromethane	104		105		70 - 130		
Toluene-d8 (Surr)	102		101		70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Method Blank - Batch: 360-65621

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-65621/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1432
Date Prepared: 11/09/2010 1432

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15345.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.20	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2,2-Tetrachloroethane	ND		0.40	0.50
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,1-Dichloropropene	ND		0.40	1.0
1,2,3-Trichlorobenzene	ND		0.40	1.0
1,2,3-Trichloropropane	ND		0.20	1.0
1,2,4-Trichlorobenzene	ND		0.40	1.0
1,2,4-Trimethylbenzene	ND		0.20	1.0
1,2-Dibromo-3-Chloropropane	ND		0.40	5.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,2-Dichloropropane	ND		0.40	1.0
1,3,5-Trimethylbenzene	ND		0.20	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,3-Dichloropropane	ND		0.20	1.0
1,4-Dichlorobenzene	ND		0.20	1.0
1,4-Dioxane	ND		10	50
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		6.0	10
2-Chlorotoluene	ND		0.40	1.0
2-Hexanone	ND		4.0	10
4-Chlorotoluene	ND		0.20	1.0
4-Isopropyltoluene	ND		0.40	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.0	10
Acetone	ND		16	50
Benzene	ND		0.20	1.0
Bromobenzene	ND		0.20	1.0
Bromoform	ND		0.40	1.0
Bromomethane	ND		1.0	2.0
Carbon disulfide	ND		0.40	10
Carbon tetrachloride	ND		0.40	1.0
Chlorobenzene	ND		0.20	1.0
Chlorobromomethane	ND		0.20	1.0
Chlorodibromomethane	ND		0.20	0.50
Chloroethane	ND		0.60	2.0
Chloroform	ND		0.20	1.0
Chloromethane	ND		0.40	2.0
cis-1,2-Dichloroethene	ND		0.20	1.0
cis-1,3-Dichloropropene	ND		0.20	0.40
Dibromomethane	ND		0.20	1.0

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Method Blank - Batch: 360-65621

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 360-65621/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1432
Date Prepared: 11/09/2010 1432

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15345.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorobromomethane	ND		0.20	1.0
Dichlorodifluoromethane	ND		0.20	1.0
Ethyl ether	ND		0.40	10
Ethylbenzene	ND		0.20	1.0
Ethylene Dibromide	ND		0.20	1.0
Hexachlorobutadiene	ND		0.40	0.40
Isopropyl ether	ND		0.20	10
Isopropylbenzene	ND		0.20	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
n-Butylbenzene	ND		0.20	1.0
N-Propylbenzene	ND		0.20	1.0
Naphthalene	ND		0.24	5.0
o-Xylene	ND		0.40	1.0
sec-Butylbenzene	ND		0.40	1.0
Styrene	ND		0.40	1.0
Tert-amyl methyl ether	ND		0.60	5.0
Tert-butyl ethyl ether	ND		0.60	5.0
tert-Butylbenzene	ND		0.20	1.0
Tetrachloroethene	ND		0.20	1.0
Tetrahydrofuran	ND		2.0	10
Toluene	ND		0.40	1.0
trans-1,2-Dichloroethene	ND		0.20	1.0
trans-1,3-Dichloropropene	ND		0.40	0.40
Trichloroethene	ND		0.40	1.0
Trichlorofluoromethane	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	101	70 - 130		
Dibromofluoromethane	106	70 - 130		
Toluene-d8 (Surr)	97	70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65621**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65621/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1327
Date Prepared: 11/09/2010 1327

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15342.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65621/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1349
Date Prepared: 11/09/2010 1349

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15343.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1,2-Tetrachloroethane	91	86	70 - 130	6	20		
1,1,1-Trichloroethane	102	94	70 - 130	7	20		
1,1,2,2-Tetrachloroethane	109	108	70 - 130	1	20		
1,1,2-Trichloroethane	106	107	70 - 130	1	20		
1,1-Dichloroethane	105	101	70 - 130	5	20		
1,1-Dichloroethene	101	87	70 - 130	14	20		
1,1-Dichloropropene	106	100	70 - 130	7	20		
1,2,3-Trichlorobenzene	90	77	70 - 130	16	20		
1,2,3-Trichloropropane	100	96	70 - 130	4	20		
1,2,4-Trichlorobenzene	95	84	70 - 130	12	20		
1,2,4-Trimethylbenzene	103	93	70 - 130	10	20		
1,2-Dibromo-3-Chloropropane	96	90	70 - 130	6	20		
1,2-Dichlorobenzene	101	97	70 - 130	4	20		
1,2-Dichloroethane	105	105	70 - 130	0	20		
1,2-Dichloropropane	107	105	70 - 130	2	20		
1,3,5-Trimethylbenzene	101	92	70 - 130	9	20		
1,3-Dichlorobenzene	101	93	70 - 130	9	20		
1,3-Dichloropropane	106	108	70 - 130	2	20		
1,4-Dichlorobenzene	100	97	70 - 130	4	20		
1,4-Dioxane	107	99	70 - 130	8	20		
2,2-Dichloropropane	80	74	70 - 130	8	20		
2-Butanone (MEK)	121	121	70 - 130	0	20		
2-Chlorotoluene	103	97	70 - 130	6	20		
2-Hexanone	113	114	70 - 130	1	20		
4-Chlorotoluene	104	97	70 - 130	7	20		
4-Isopropyltoluene	105	93	70 - 130	12	20		
4-Methyl-2-pentanone (MIBK)	121	120	70 - 130	1	20		
Acetone	139	137	70 - 130	2	20	*	*
Benzene	104	99	70 - 130	5	20		
Bromobenzene	104	98	70 - 130	6	20		
Bromoform	111	110	70 - 130	0	20		
Bromomethane	101	97	70 - 130	4	20		
Carbon disulfide	133	119	70 - 130	11	20	*	

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65621**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65621/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1327
Date Prepared: 11/09/2010 1327

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15342.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65621/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1349
Date Prepared: 11/09/2010 1349

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15343.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Carbon tetrachloride	112	104	70 - 130	8	20		
Chlorobenzene	99	94	70 - 130	5	20		
Chlorobromomethane	103	101	70 - 130	2	20		
Chlorodibromomethane	104	105	70 - 130	1	20		
Chloroethane	116	104	70 - 130	11	20		
Chloroform	104	99	70 - 130	5	20		
Chloromethane	108	100	70 - 130	8	20		
cis-1,2-Dichloroethene	107	100	70 - 130	6	20		
cis-1,3-Dichloropropene	87	88	70 - 130	1	20		
Dibromomethane	107	108	70 - 130	1	20		
Dichlorobromomethane	100	101	70 - 130	1	20		
Dichlorodifluoromethane	103	95	70 - 130	8	20		
Ethyl ether	104	100	70 - 130	4	20		
Ethylbenzene	101	95	70 - 130	6	20		
Ethylene Dibromide	102	104	70 - 130	1	20		
Hexachlorobutadiene	82	70	70 - 130	16	20		
Isopropyl ether	106	102	70 - 130	4	20		
Isopropylbenzene	100	93	70 - 130	7	20		
m-Xylene & p-Xylene	100	94	70 - 130	6	20		
Methyl tert-butyl ether	100	97	70 - 130	3	20		
Methylene Chloride	111	103	70 - 130	7	20		
n-Butylbenzene	108	99	70 - 130	9	20		
N-Propylbenzene	104	96	70 - 130	9	20		
Naphthalene	91	80	70 - 130	14	20		
o-Xylene	101	95	70 - 130	6	20		
sec-Butylbenzene	103	91	70 - 130	12	20		
Styrene	96	92	70 - 130	4	20		
Tert-amyl methyl ether	89	86	70 - 130	4	20		
Tert-butyl ethyl ether	99	98	70 - 130	1	20		
tert-Butylbenzene	100	87	70 - 130	14	20		
Tetrachloroethene	100	98	70 - 130	2	20		
Tetrahydrofuran	120	119	70 - 130	1	20		
Toluene	99	96	70 - 130	2	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65621**

**Method: 8260C
Preparation: 5030C**

LCS Lab Sample ID: LCS 360-65621/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1327
Date Prepared: 11/09/2010 1327

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15342.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65621/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1349
Date Prepared: 11/09/2010 1349

Analysis Batch: 360-65621
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15343.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
trans-1,2-Dichloroethene	107	99	70 - 130	8	20		
trans-1,3-Dichloropropene	84	83	70 - 130	2	20		
Trichloroethene	102	99	70 - 130	3	20		
Trichlorofluoromethane	111	98	70 - 130	12	20		
Vinyl chloride	97	90	70 - 130	7	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	100		99		70 - 130		
Dibromofluoromethane	106		106		70 - 130		
Toluene-d8 (Surr)	102		105		70 - 130		

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New Hampshire (NELAC) prim.	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P			
1103.1	E.coli		ambient/ source			
Enterolert	Enterococcus					
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction	SW				
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethane compounds	P	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric	P	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total	P	NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 360-30974-1

Login Number: 30974

List Source: TestAmerica Westfield

Creator: Cagan, Marissa

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

012246

●240 Bear Hill Rd., Suite 104
Waltham, MA 02451
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Boston - Service Center

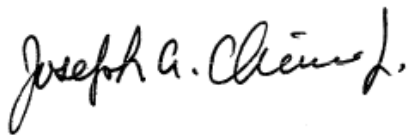
Monthly System

ANALYTICAL REPORT

Job Number: 360-30966-1

Job Description: Roadway North Reading

For:
ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford, MA 01824
Attention: Debra Stake



Approved for release.
Joe Chimi
Report Production Representative
11/15/10 3:51 PM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
11/15/2010

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 Southamptton Road, Westfield, MA 01085

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CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Roadway North Reading

Report Number: 360-30966-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/04/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples Influent (360-30966-1) and Trip Blank (360-30966-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/05/2010 and 11/09/2010.

Acetone failed the recovery criteria high for LCS 360-65620/3 and LCSD 360-65620/4. Refer to the QC report for details.

For batches 360-65530 and 360-65620, Acetone failed the CCV criteria high.

No other difficulties were encountered during the VOC analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) - LOW LEVEL

Sample Influent (360-30966-1) was analyzed for semivolatile organic compounds (GC-MS) - Low Level in accordance with EPA SW-846 Method 8270C. The sample was prepared on 11/05/2010 and analyzed on 11/13/2010.

Phenol failed the recovery criteria low for LCS 360-65482/2-A. 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol exceeded the rpd limit for LCSD 360-65482/3-A. Refer to the QC report for details.

No other difficulties were encountered during the SVOC Low Level analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample Influent (360-30966-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The sample was prepared on 11/05/2010 and analyzed on 11/09/2010.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

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

Sample Influent (360-30966-1) was analyzed for 1,2-dibromoethane and 1,2-dibromo-3-chloropropane by microextraction and gas chromatography in accordance with EPA SW-846 Method 8011. The sample was prepared and analyzed on 11/10/2010.

No difficulties were encountered during the EDB and DBCP analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Sample Influent (360-30966-1) was analyzed for total metals (ICP) in accordance with EPA Method 200.7. The sample was prepared on

11/05/2010 and analyzed on 11/12/2010.

Iron was detected in method blank MB 360-65462/1-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.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Sample Influent (360-30966-1) was analyzed for total metals (ICPMS) in accordance with EPA Method 200.8. The sample was prepared on 11/05/2010 and analyzed on 11/09/2010.

Selenium was detected in method blank MB 360-65467/1-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.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY (CVAA)

Sample Influent (360-30966-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The sample was prepared on 11/09/2010 and analyzed on 11/10/2010.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

OIL AND GREASE (HEM)

Sample Influent (360-30966-1) was analyzed for oil and grease (HEM) in accordance with EPA Method 1664A. The sample was prepared and analyzed on 11/10/2010.

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

Prep batch 500-99484, analytical batch 500-99485

(analyzed as HEM, since the samples were non-detect for HEM and did not require silica gel treatment)

MB 1.6 mg/L 5.0 mg/L RL

LCS Observed 35.7 mg/L True value 40 mg/L 89% recovery limits 78-114%

ANIONS

Sample Influent (360-30966-1) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 11/09/2010.

Sample Influent (360-30966-1)[10X] required dilution prior to analysis due to high target concentration. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

TRIVALENT CHROMIUM

Sample Influent (360-30966-1) was analyzed for trivalent chromium in accordance with SW-846 7196A_CR3. The sample was analyzed on 11/12/2010.

No difficulties were encountered during the trivalent chromium analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample Influent (360-30966-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The sample was analyzed on 11/05/2010.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample Influent (360-30966-1) was analyzed for total cyanide in accordance with Lachat 204001A. The sample was prepared on 11/06/2010 and analyzed on 11/10/2010.

No difficulties were encountered during the total cyanide analysis.

All quality control parameters were within the acceptance limits.

TOTAL PHENOLS

Sample Influent (360-30966-1) was analyzed for Total Phenols in accordance with Lachat 210-001A. The sample was prepared and analyzed on 11/05/2010.

No difficulties were encountered during the Total Phenols analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample Influent (360-30966-1) was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 11/05/2010.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

RESIDUAL CHLORINE

Sample Influent (360-30966-1) was analyzed for residual chlorine in accordance with SM 4500 Cl F. The sample was analyzed on 11/04/2010.

No difficulties were encountered during the residual chlorine analysis.

All quality control parameters were within the acceptance limits.

PH

Sample Influent (360-30966-1) was analyzed for pH in accordance with SM20 4500 H+ B. The sample was analyzed on 11/05/2010.

No difficulties were encountered during the pH analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
360-30966-1	INFLUENT					
1,1-Dichloroethane		0.86	J	1.0	ug/L	8260B
1,2-Dichlorobenzene		0.66	J	1.0	ug/L	8260B
1,3-Dichlorobenzene		1.7		1.0	ug/L	8260B
1,4-Dichlorobenzene		0.62	J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		2.9		1.0	ug/L	8260B
Tetrachloroethene		110		1.0	ug/L	8260B
Trichloroethene		12		1.0	ug/L	8260B
Di-n-butyl phthalate		0.55	J	4.5	ug/L	8270C LL
Iron		46	J B	100	ug/L	200.7 Rev 4.4
Nickel		2.6	J	10	ug/L	200.7 Rev 4.4
Zinc		9.7	J	50	ug/L	200.7 Rev 4.4
Copper		4.4		1.0	ug/L	200.8
Lead		1.2		1.0	ug/L	200.8
Selenium		6.7	B	1.0	ug/L	200.8
Mercury		0.61		0.20	ug/L	245.1
Chloride		420		10	mg/L	300.0
pH		6.77	HF	0.100	SU	SM 4500 H+ B

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

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
Metals (ICP/MS)	TAL WFD	EPA 200.8	
Preparation, Total Metals	TAL WFD		EPA 200.8
Mercury (CVAA)	TAL WFD	EPA 245.1	
Preparation, Mercury	TAL WFD		EPA 245.1
HEM and SGT-HEM	TAL CHI	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL CHI		1664A 1664A
Anions, Ion Chromatography	TAL WFD	MCAWW 300.0	
Chromium, Trivalent (Colorimetric)	TAL WFD	SW846 7196A	
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 SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Description	Lab Location	Method	Preparation Method
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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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method	Analyst	Analyst ID
SW846 8260B	Pham, Tam	TP
SW846 8270C LL	Tester, Carla	CT
40CFR136A 608	Sullivan, Pat J	PJS
SW846 8011	Sadowski, Scott	SS
EPA 200.7 Rev 4.4	Smith, Tim J	TJS
EPA 200.8	Smith, Tim J	TJS
EPA 245.1	Nasiatka, Ellen M	EMN
1664A 1664A	Brogan, Mary T	MTB
MCAWW 300.0	Emerich, Rich W	RWE
SW846 7196A	Smith, Tim J	TJS
SW846 7196A	Stewart, Alyse M	AMS
LACHAT L204001A CN	Emerich, Rich W	RWE
LACHAT L210-001A	Emerich, Rich W	RWE
SM SM 2540D	Stewart, Alyse M	AMS
SM SM 4500 Cl F	Benoit, Gary R	GRB
SM SM 4500 H+ B	Stewart, Alyse M	AMS

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-30966-1	Influent	Water	11/04/2010 0945	11/04/2010 1550
360-30966-2	Trip Blank	Water	11/04/2010 0945	11/04/2010 1550

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-65620	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V15349.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/09/2010 1604			Final Weight/Volume:	5 mL
Date Prepared:	11/09/2010 1604				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		0.20	1.0
Toluene	ND		0.40	1.0
Ethylbenzene	ND		0.20	1.0
o-Xylene	ND		0.40	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Butyl alcohol, tert-	ND		3.8	50
Tert-amyl methyl ether	ND		0.60	5.0
Carbon tetrachloride	ND		0.40	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	0.86	J	0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,2-Dichlorobenzene	0.66	J	0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,3-Dichlorobenzene	1.7		0.40	1.0
1,4-Dioxane	ND		10	50
1,4-Dichlorobenzene	0.62	J	0.20	1.0
Acetone	ND	*	16	50
cis-1,2-Dichloroethene	2.9		0.20	1.0
Methylene Chloride	ND		1.0	2.0
Tetrachloroethene	110		0.20	1.0
Trichloroethene	12		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-30966-2

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-65530	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V15290.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/05/2010 2147			Final Weight/Volume:	5 mL
Date Prepared:	11/05/2010 2147				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		0.20	1.0
Toluene	ND		0.40	1.0
Ethylbenzene	ND		0.20	1.0
o-Xylene	ND		0.40	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Butyl alcohol, tert-	ND		3.8	50
Tert-amyl methyl ether	ND		0.60	5.0
Carbon tetrachloride	ND		0.40	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,4-Dioxane	ND		10	50
1,4-Dichlorobenzene	ND		0.20	1.0
Acetone	ND		16	50
cis-1,2-Dichloroethene	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
Tetrachloroethene	ND		0.20	1.0
Trichloroethene	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	99		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Method:	8270C LL	Analysis Batch: 360-65836	Instrument ID:	Inst. B
Preparation:	3510C	Prep Batch: 360-65482	Lab File ID:	B13341.D
Dilution:	1.0		Initial Weight/Volume:	1100 mL
Date Analyzed:	11/13/2010 1510		Final Weight/Volume:	1.0 mL
Date Prepared:	11/05/2010 1406		Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-Trichlorophenol	ND		0.45	4.5
2,4,6-Trichlorophenol	ND		0.45	4.5
2,4-Dichlorophenol	ND		0.45	4.5
2,4-Dinitrophenol	ND	*	0.45	4.5
2,4-Dimethylphenol	ND		0.45	4.5
2-Chlorophenol	ND		0.45	4.5
2-Methylphenol	ND		0.45	4.5
2-Nitrophenol	ND		0.45	4.5
3 & 4 Methylphenol	ND		0.45	4.5
4,6-Dinitro-2-methylphenol	ND	*	0.45	4.5
4-Chloro-3-methylphenol	ND		0.45	4.5
4-Nitrophenol	ND		0.45	4.5
Acenaphthene	ND		0.045	0.91
Acenaphthylene	ND		0.045	0.27
Anthracene	ND		0.064	0.91
Benzo[a]anthracene	ND		0.15	0.27
Benzo[a]pyrene	ND		0.094	0.18
Benzo[b]fluoranthene	ND		0.13	0.27
Benzo[g,h,i]perylene	ND		0.085	0.45
Benzo[k]fluoranthene	ND		0.15	0.27
Bis(2-ethylhexyl) phthalate	ND		0.45	1.8
Butyl benzyl phthalate	ND		0.45	4.5
Chrysene	ND		0.15	0.91
Di-n-butyl phthalate	0.55	J	0.55	4.5
Di-n-octyl phthalate	ND		0.66	4.5
Dibenz(a,h)anthracene	ND		0.058	0.45
Diethyl phthalate	ND		0.45	4.5
Dimethyl phthalate	ND		0.45	4.5
Fluoranthene	ND		0.18	0.91
Fluorene	ND		0.045	0.91
Indeno[1,2,3-cd]pyrene	ND		0.072	0.45
Naphthalene	ND		0.045	0.91
Pentachlorophenol	ND		0.45	0.91
Phenanthrene	ND		0.077	0.18
Phenol	ND	*	0.45	4.5
Pyrene	ND		0.17	4.5

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	76		15 - 110
2-Fluorobiphenyl	69		30 - 130
2-Fluorophenol	32		15 - 110
Phenol-d5	20		15 - 110
Terphenyl-d14	72		30 - 130
Nitrobenzene-d5	69		30 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

608 Organochlorine Pesticides/PCBs in Water

Method:	608	Analysis Batch: 360-65596	Instrument ID:	Inst. P
Preparation:	CWA_Prep	Prep Batch: 360-65487	Initial Weight/Volume:	1100 mL
Dilution:	1.0		Final Weight/Volume:	5.0 mL
Date Analyzed:	11/09/2010 0919		Injection Volume:	2 uL
Date Prepared:	11/05/2010 1500		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.25	0.91
PCB-1221	ND		0.40	0.91
PCB-1232	ND		0.31	0.91
PCB-1242	ND		0.16	0.91
PCB-1248	ND		0.35	0.91
PCB-1254	ND		0.31	0.91
PCB-1260	ND		0.23	0.91

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
DCB Decachlorobiphenyl	80		30 - 150

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

608 Organochlorine Pesticides/PCBs in Water

Method:	608	Analysis Batch: 360-65596	Instrument ID:	Inst. P
Preparation:	CWA_Prep	Prep Batch: 360-65487	Initial Weight/Volume:	1100 mL
Dilution:	1.0		Final Weight/Volume:	5.0 mL
Date Analyzed:	11/09/2010 0919		Injection Volume:	2 uL
Date Prepared:	11/05/2010 1500		Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	95		30 - 150
DCB Decachlorobiphenyl	90		30 - 150

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

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

Method:	8011	Analysis Batch: 360-65718	Instrument ID:	Inst. U
Preparation:	8011	Prep Batch: 360-65713	Initial Weight/Volume:	35.1341 mL
Dilution:	1.0		Final Weight/Volume:	35 mL
Date Analyzed:	11/10/2010 1732		Injection Volume:	1 uL
Date Prepared:	11/10/2010 1130		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.013	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,1,1,2-Tetrachloroethane	117		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

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

Method: 8011

Analysis Batch: 360-65718

Instrument ID: Inst. U

Preparation: 8011

Prep Batch: 360-65713

Initial Weight/Volume: 35.1341 mL

Dilution: 1.0

Final Weight/Volume: 35 mL

Date Analyzed: 11/10/2010 1732

Injection Volume: 1 uL

Date Prepared: 11/10/2010 1130

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,1,1,2-Tetrachloroethane	116		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Client Sample ID: Influent

Lab Sample ID: 360-30966-1

Client Matrix: Water

Date Sampled: 11/04/2010 0945

Date Received: 11/04/2010 1550

200.7 Rev 4.4 Metals (ICP)

Method:	200.7 Rev 4.4	Analysis Batch: 360-65777	Instrument ID:	Varian ICP
Preparation:	200.7	Prep Batch: 360-65462	Lab File ID:	111110g.csv
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	11/12/2010 0120		Final Weight/Volume:	50 mL
Date Prepared:	11/05/2010 0917			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Iron	46	J B	14	100
Nickel	2.6	J	1.2	10
Zinc	9.7	J	6.6	50

200.8 Metals (ICP/MS)

Method:	200.8	Analysis Batch: 360-65641	Instrument ID:	ICPMS
Preparation:	200.8	Prep Batch: 360-65467	Lab File ID:	110910b.rep
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	11/09/2010 1402		Final Weight/Volume:	50 mL
Date Prepared:	11/05/2010 0936			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	ND		0.25	1.0
Arsenic	ND		0.49	1.0
Cadmium	ND		0.25	1.0
Copper	4.4		0.56	1.0
Lead	1.2		0.14	1.0
Antimony	ND		0.74	1.0
Selenium	6.7	B	0.71	1.0

245.1 Mercury (CVAA)

Method:	245.1	Analysis Batch: 360-65675	Instrument ID:	Hg Analyzer
Preparation:	245.1	Prep Batch: 360-65607	Lab File ID:	111010b.PRN
Dilution:	1.0		Initial Weight/Volume:	10 mL
Date Analyzed:	11/10/2010 1328		Final Weight/Volume:	10 mL
Date Prepared:	11/09/2010 1048			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.61		0.060	0.20

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

General Chemistry**Client Sample ID:** Influent

Lab Sample ID: 360-30966-1

Date Sampled: 11/04/2010 0945

Client Matrix: Water

Date Received: 11/04/2010 1550

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
SGT-HEM	ND		mg/L	0.56	4.7	1.0	1664A
	Analysis Batch: 500-99485	Date Analyzed: 11/10/2010 1550					
	Prep Batch: 500-99484	Date Prepared: 11/10/2010 0843					
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	420		mg/L	10	10	10	300.0
	Analysis Batch: 360-65617	Date Analyzed: 11/09/2010 0407					
Chromium, trivalent	ND		mg/L	0.0050	0.0050	1.0	7196A
	Analysis Batch: 360-65796	Date Analyzed: 11/12/2010 1006					
Cr (VI)	ND		mg/L	0.0050	0.0050	1.0	7196A
	Analysis Batch: 360-65445	Date Analyzed: 11/05/2010 0821					
Cyanide, Total	ND		mg/L	0.010	0.010	1.0	L204001A CN
	Analysis Batch: 360-65697	Date Analyzed: 11/10/2010 1708					
	Prep Batch: 360-65503	Date Prepared: 11/06/2010 1004					
Phenols, Total	ND		mg/L	0.010	0.010	1.0	L210-001A
	Analysis Batch: 360-65490	Date Analyzed: 11/05/2010 1601					
	Prep Batch: 360-65481	Date Prepared: 11/05/2010 1359					
Total Suspended Solids	ND		mg/L	2.0	2.0	1.0	SM 2540D
	Analysis Batch: 360-65468	Date Analyzed: 11/05/2010 1109					
Chlorine	ND	HF	mg/L	0.020	0.020	1.0	SM 4500 Cl F
	Analysis Batch: 360-65457	Date Analyzed: 11/04/2010 1635					
pH	6.77	HF	SU	0.100	0.100	1.0	SM 4500 H+ B
	Analysis Batch: 360-65464	Date Analyzed: 11/05/2010 0901					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Lab Section	Qualifier	Description
GC/MS 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.
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
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

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:360-65530					
LCS 360-65530/3	Lab Control Sample	T	Water	8260B	
LCSD 360-65530/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 360-65530/6	Method Blank	T	Water	8260B	
360-30966-2	Trip Blank	T	Water	8260B	
Analysis Batch:360-65620					
LCS 360-65620/3	Lab Control Sample	T	Water	8260B	
LCSD 360-65620/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 360-65620/6	Method Blank	T	Water	8260B	
360-30966-1	Influent	T	Water	8260B	
Report Basis					
T = Total					
GC/MS Semi VOA					
Prep Batch: 360-65482					
LCS 360-65482/2-A	Lab Control Sample	T	Water	3510C	
LCSD 360-65482/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 360-65482/1-A	Method Blank	T	Water	3510C	
360-30966-1	Influent	T	Water	3510C	
Analysis Batch:360-65836					
LCS 360-65482/2-A	Lab Control Sample	T	Water	8270C LL	360-65482
LCSD 360-65482/3-A	Lab Control Sample Duplicate	T	Water	8270C LL	360-65482
MB 360-65482/1-A	Method Blank	T	Water	8270C LL	360-65482
360-30966-1	Influent	T	Water	8270C LL	360-65482

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-65487					
LCS 360-65487/4-A	Lab Control Sample	T	Water	CWA_Prep	
LCSD 360-65487/5-A	Lab Control Sample Duplicate	T	Water	CWA_Prep	
MB 360-65487/1-A	Method Blank	T	Water	CWA_Prep	
360-30966-1	Influent	T	Water	CWA_Prep	
Analysis Batch:360-65596					
LCS 360-65487/4-A	Lab Control Sample	T	Water	608	360-65487
LCSD 360-65487/5-A	Lab Control Sample Duplicate	T	Water	608	360-65487
MB 360-65487/1-A	Method Blank	T	Water	608	360-65487
360-30966-1	Influent	T	Water	608	360-65487
Prep Batch: 360-65713					
LCS 360-65713/2-A	Lab Control Sample	T	Water	8011	
LCSD 360-65713/3-A	Lab Control Sample Duplicate	T	Water	8011	
MB 360-65713/1-A	Method Blank	T	Water	8011	
360-30966-1	Influent	T	Water	8011	
Analysis Batch:360-65718					
LCS 360-65713/2-A	Lab Control Sample	T	Water	8011	360-65713
LCSD 360-65713/3-A	Lab Control Sample Duplicate	T	Water	8011	360-65713
MB 360-65713/1-A	Method Blank	T	Water	8011	360-65713
360-30966-1	Influent	T	Water	8011	360-65713

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 360-65462					
LCS 360-65462/2-A	Lab Control Sample	T	Water	200.7	
LCSD 360-65462/3-A	Lab Control Sample Duplicate	T	Water	200.7	
MB 360-65462/1-A	Method Blank	T	Water	200.7	
360-30966-1	Influent	T	Water	200.7	
Prep Batch: 360-65467					
LCS 360-65467/2-A	Lab Control Sample	T	Water	200.8	
LCSD 360-65467/3-A	Lab Control Sample Duplicate	T	Water	200.8	
MB 360-65467/1-A	Method Blank	T	Water	200.8	
360-30966-1	Influent	T	Water	200.8	
Prep Batch: 360-65607					
LCS 360-65607/2-A	Lab Control Sample	T	Water	245.1	
LCSD 360-65607/3-A	Lab Control Sample Duplicate	T	Water	245.1	
MB 360-65607/1-A	Method Blank	T	Water	245.1	
360-30966-1	Influent	T	Water	245.1	
Analysis Batch:360-65641					
LCS 360-65467/2-A	Lab Control Sample	T	Water	200.8	360-65467
LCSD 360-65467/3-A	Lab Control Sample Duplicate	T	Water	200.8	360-65467
MB 360-65467/1-A	Method Blank	T	Water	200.8	360-65467
360-30966-1	Influent	T	Water	200.8	360-65467
Analysis Batch:360-65675					
LCS 360-65607/2-A	Lab Control Sample	T	Water	245.1	360-65607
LCSD 360-65607/3-A	Lab Control Sample Duplicate	T	Water	245.1	360-65607
MB 360-65607/1-A	Method Blank	T	Water	245.1	360-65607
360-30966-1	Influent	T	Water	245.1	360-65607
Analysis Batch:360-65777					
LCS 360-65462/2-A	Lab Control Sample	T	Water	200.7 Rev 4.4	360-65462
LCSD 360-65462/3-A	Lab Control Sample Duplicate	T	Water	200.7 Rev 4.4	360-65462
MB 360-65462/1-A	Method Blank	T	Water	200.7 Rev 4.4	360-65462
360-30966-1	Influent	T	Water	200.7 Rev 4.4	360-65462

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:360-65445					
LCS 360-65445/10	Lab Control Sample	T	Water	7196A	
LCSD 360-65445/11	Lab Control Sample Duplicate	T	Water	7196A	
MB 360-65445/9	Method Blank	T	Water	7196A	
360-30966-1	Influent	T	Water	7196A	
360-30966-1MS	Matrix Spike	T	Water	7196A	
360-30966-1MSD	Matrix Spike Duplicate	T	Water	7196A	
Analysis Batch:360-65457					
LCS 360-65457/2	Lab Control Sample	T	Water	SM 4500 Cl F	
LCSD 360-65457/3	Lab Control Sample Duplicate	T	Water	SM 4500 Cl F	
MB 360-65457/1	Method Blank	T	Water	SM 4500 Cl F	
360-30966-1	Influent	T	Water	SM 4500 Cl F	
Analysis Batch:360-65464					
LCS 360-65464/1	Lab Control Sample	T	Water	SM 4500 H+ B	
360-30966-1	Influent	T	Water	SM 4500 H+ B	
360-30966-1DU	Duplicate	T	Water	SM 4500 H+ B	
Analysis Batch:360-65468					
LCS 360-65468/2	Lab Control Sample	T	Water	SM 2540D	
MB 360-65468/1	Method Blank	T	Water	SM 2540D	
360-30966-1	Influent	T	Water	SM 2540D	
Prep Batch: 360-65481					
LCS 360-65481/2-A	Lab Control Sample	T	Water	Distill/Phenol	
MB 360-65481/1-A	Method Blank	T	Water	Distill/Phenol	
360-30966-1	Influent	T	Water	Distill/Phenol	
Analysis Batch:360-65490					
LCS 360-65481/2-A	Lab Control Sample	T	Water	L210-001A	360-65481
MB 360-65481/1-A	Method Blank	T	Water	L210-001A	360-65481
360-30966-1	Influent	T	Water	L210-001A	360-65481
Prep Batch: 360-65503					
LCS 360-65503/2-A	Lab Control Sample	T	Water	Distill/CN	
MB 360-65503/1-A	Method Blank	T	Water	Distill/CN	
360-30966-1	Influent	T	Water	Distill/CN	
Analysis Batch:360-65617					
LCS 360-65617/4	Lab Control Sample	T	Water	300.0	
MB 360-65617/3	Method Blank	T	Water	300.0	
360-30966-1	Influent	T	Water	300.0	

TestAmerica Westfield

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:360-65697					
LCS 360-65503/2-A	Lab Control Sample	T	Water	L204001A CN	360-65503
MB 360-65503/1-A	Method Blank	T	Water	L204001A CN	360-65503
360-30966-1	Influent	T	Water	L204001A CN	360-65503
Analysis Batch:360-65796					
360-30966-1	Influent	T	Water	7196A	
Prep Batch: 500-99484					
LCS 500-99484/2-A	Lab Control Sample	T	Water	1664A	
MB 500-99484/1-A	Method Blank	T	Water	1664A	
360-30966-1	Influent	T	Water	1664A	
Analysis Batch:500-99485					
LCS 500-99484/2-A	Lab Control Sample	T	Water	1664A	500-99484
MB 500-99484/1-A	Method Blank	T	Water	1664A	500-99484
360-30966-1	Influent	T	Water	1664A	500-99484

Report Basis

T = Total

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
360-30966-1	Influent	98	103	102
360-30966-2	Trip Blank	99	103	98
MB 360-65530/6		100	104	99
MB 360-65620/6		101	106	97
LCS 360-65530/3		97	104	102
LCS 360-65620/3		100	106	102
LCSD 360-65530/4		99	105	101
LCSD 360-65620/4		99	106	105

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surr)	70-130

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Surrogate Recovery Report

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	PHL %Rec	TPH %Rec	NBZ %Rec
360-30966-1	Influent	76	69	32	20	72	69
MB 360-65482/1-A		72	70	36	24	80	71
LCS 360-65482/2-A		82	71	39	25	71	63
LCSD 360-65482/3-A		89	77	40	28	74	68

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	15-110
FBP = 2-Fluorobiphenyl	30-130
2FP = 2-Fluorophenol	15-110
PHL = Phenol-d5	15-110
TPH = Terphenyl-d14	30-130
NBZ = Nitrobenzene-d5	30-130

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Surrogate Recovery Report

608 Organochlorine Pesticides/PCBs in Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
360-30966-1	Influent	81	95	80	90
MB 360-65487/1-A		76	78	83	77
LCS 360-65487/4-A		80	87	79	73
LCSD 360-65487/5-A		87	86	84	73

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = DCB Decachlorobiphenyl	30-150

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Surrogate Recovery Report

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

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCEA1 %Rec	TCEA2 %Rec
360-30966-1	Influent	116	117
MB 360-65713/1-A		96	96
LCS 360-65713/2-A		106	117
LCSD 360-65713/3-A		104	107

Surrogate	Acceptance Limits
TCEA = 1,1,1,2-Tetrachloroethane	70-130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65530

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 360-65530/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2104
Date Prepared: 11/05/2010 2104

Analysis Batch: 360-65530
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15288.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Benzene	ND		0.20	1.0
Toluene	ND		0.40	1.0
Ethylbenzene	ND		0.20	1.0
o-Xylene	ND		0.40	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Butyl alcohol, tert-	ND		3.8	50
Tert-amyl methyl ether	ND		0.60	5.0
Carbon tetrachloride	ND		0.40	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,4-Dioxane	ND		10	50
1,4-Dichlorobenzene	ND		0.20	1.0
Acetone	ND		16	50
cis-1,2-Dichloroethene	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
Tetrachloroethene	ND		0.20	1.0
Trichloroethene	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	100	70 - 130
Dibromofluoromethane	104	70 - 130
Toluene-d8 (Surr)	99	70 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65530**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-65530/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1958
Date Prepared: 11/05/2010 1958

Analysis Batch: 360-65530
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15285.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65530/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 2020
Date Prepared: 11/05/2010 2020

Analysis Batch: 360-65530
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15286.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	101	100	70 - 130	1	25		
Toluene	97	94	70 - 130	3	25		
Ethylbenzene	100	100	70 - 130	0	25		
o-Xylene	98	95	70 - 130	3	25		
m-Xylene & p-Xylene	100	95	70 - 130	5	25		
Methyl tert-butyl ether	96	97	70 - 130	1	25		
Butyl alcohol, tert-	104	105	70 - 130	0	25		
Tert-amyl methyl ether	87	87	70 - 130	1	25		
Carbon tetrachloride	104	101	70 - 130	3	25		
1,1,1-Trichloroethane	95	95	70 - 130	0	25		
1,1,2-Trichloroethane	103	101	70 - 130	2	25		
1,1-Dichloroethane	101	99	70 - 130	2	25		
1,1-Dichloroethene	91	90	70 - 130	1	25		
1,2-Dichlorobenzene	99	98	70 - 130	2	25		
1,2-Dichloroethane	105	103	70 - 130	2	25		
1,3-Dichlorobenzene	90	93	70 - 130	3	25		
1,4-Dioxane	95	95	70 - 130	1	25		
1,4-Dichlorobenzene	101	98	70 - 130	3	25		
Acetone	124	126	70 - 130	2	25		
cis-1,2-Dichloroethene	102	101	70 - 130	2	25		
Methylene Chloride	97	99	70 - 130	2	25		
Tetrachloroethene	99	93	70 - 130	5	25		
Trichloroethene	102	99	70 - 130	2	25		
Vinyl chloride	86	85	70 - 130	2	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	97		99		70 - 130		
Dibromofluoromethane	104		105		70 - 130		
Toluene-d8 (Surr)	102		101		70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65620

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 360-65620/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1432
Date Prepared: 11/09/2010 1432

Analysis Batch: 360-65620
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15345.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Benzene	ND		0.20	1.0
Toluene	ND		0.40	1.0
Ethylbenzene	ND		0.20	1.0
o-Xylene	ND		0.40	1.0
m-Xylene & p-Xylene	ND		0.40	2.0
Methyl tert-butyl ether	ND		0.20	1.0
Butyl alcohol, tert-	ND		3.8	50
Tert-amyl methyl ether	ND		0.60	5.0
Carbon tetrachloride	ND		0.40	1.0
1,1,1-Trichloroethane	ND		0.40	1.0
1,1,2-Trichloroethane	ND		0.40	1.0
1,1-Dichloroethane	ND		0.20	1.0
1,1-Dichloroethene	ND		0.40	1.0
1,2-Dichlorobenzene	ND		0.40	1.0
1,2-Dichloroethane	ND		0.40	1.0
1,3-Dichlorobenzene	ND		0.40	1.0
1,4-Dioxane	ND		10	50
1,4-Dichlorobenzene	ND		0.20	1.0
Acetone	ND		16	50
cis-1,2-Dichloroethene	ND		0.20	1.0
Methylene Chloride	ND		1.0	2.0
Tetrachloroethene	ND		0.20	1.0
Trichloroethene	ND		0.40	1.0
Vinyl chloride	ND		0.40	0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	101	70 - 130
Dibromofluoromethane	106	70 - 130
Toluene-d8 (Surr)	97	70 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65620**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-65620/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1327
Date Prepared: 11/09/2010 1327

Analysis Batch: 360-65620
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15342.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-65620/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1349
Date Prepared: 11/09/2010 1349

Analysis Batch: 360-65620
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent#2 GC/MS
Lab File ID: V15343.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	104	99	70 - 130	5	25		
Toluene	99	96	70 - 130	2	25		
Ethylbenzene	101	95	70 - 130	6	25		
o-Xylene	101	95	70 - 130	6	25		
m-Xylene & p-Xylene	100	94	70 - 130	6	25		
Methyl tert-butyl ether	100	97	70 - 130	3	25		
Butyl alcohol, tert-	104	102	70 - 130	1	25		
Tert-amyl methyl ether	89	86	70 - 130	4	25		
Carbon tetrachloride	112	104	70 - 130	8	25		
1,1,1-Trichloroethane	102	94	70 - 130	7	25		
1,1,2-Trichloroethane	106	107	70 - 130	1	25		
1,1-Dichloroethane	105	101	70 - 130	5	25		
1,1-Dichloroethene	101	87	70 - 130	14	25		
1,2-Dichlorobenzene	101	97	70 - 130	4	25		
1,2-Dichloroethane	105	105	70 - 130	0	25		
1,3-Dichlorobenzene	101	93	70 - 130	9	25		
1,4-Dioxane	107	99	70 - 130	8	25		
1,4-Dichlorobenzene	100	97	70 - 130	4	25		
Acetone	137	134	70 - 130	2	25	*	*
cis-1,2-Dichloroethene	107	100	70 - 130	6	25		
Methylene Chloride	112	104	70 - 130	7	25		
Tetrachloroethene	100	98	70 - 130	2	25		
Trichloroethene	102	99	70 - 130	3	25		
Vinyl chloride	97	90	70 - 130	7	25		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	100	99	70 - 130
Dibromofluoromethane	106	106	70 - 130
Toluene-d8 (Surr)	102	105	70 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65482

Method: 8270C LL Preparation: 3510C

Lab Sample ID: MB 360-65482/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/13/2010 1327
Date Prepared: 11/05/2010 1406

Analysis Batch: 360-65836
Prep Batch: 360-65482
Units: ug/L

Instrument ID: Inst. B
Lab File ID: B13338.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

Analyte	Result	Qual	MDL	RL
2,4,5-Trichlorophenol	ND		0.50	5.0
2,4,6-Trichlorophenol	ND		0.50	5.0
2,4-Dichlorophenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		0.50	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2-Chlorophenol	ND		0.50	5.0
2-Methylphenol	ND		0.50	5.0
2-Nitrophenol	ND		0.50	5.0
3 & 4 Methylphenol	ND		0.50	5.0
4,6-Dinitro-2-methylphenol	ND		0.50	5.0
4-Chloro-3-methylphenol	ND		0.50	5.0
4-Nitrophenol	ND		0.50	5.0
Acenaphthene	ND		0.050	1.0
Acenaphthylene	ND		0.050	0.30
Anthracene	ND		0.070	1.0
Benzo[a]anthracene	ND		0.17	0.30
Benzo[a]pyrene	ND		0.10	0.20
Benzo[b]fluoranthene	ND		0.14	0.30
Benzo[g,h,i]perylene	ND		0.094	0.50
Benzo[k]fluoranthene	ND		0.17	0.30
Bis(2-ethylhexyl) phthalate	ND		0.50	2.0
Butyl benzyl phthalate	ND		0.50	5.0
Chrysene	ND		0.17	1.0
Di-n-butyl phthalate	ND		0.60	5.0
Di-n-octyl phthalate	ND		0.73	5.0
Dibenz(a,h)anthracene	ND		0.064	0.50
Diethyl phthalate	ND		0.50	5.0
Dimethyl phthalate	ND		0.50	5.0
Fluoranthene	ND		0.20	1.0
Fluorene	ND		0.050	1.0
Indeno[1,2,3-cd]pyrene	ND		0.079	0.50
Naphthalene	ND		0.050	1.0
Pentachlorophenol	ND		0.50	1.0
Phenanthrene	ND		0.085	0.20
Phenol	ND		0.50	5.0
Pyrene	ND		0.19	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	72	15 - 110
2-Fluorobiphenyl	70	30 - 130
2-Fluorophenol	36	15 - 110
Phenol-d5	24	15 - 110
Terphenyl-d14	80	30 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	71	30 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65482**

**Method: 8270C LL
Preparation: 3510C**

LCS Lab Sample ID: LCS 360-65482/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/13/2010 1401
Date Prepared: 11/05/2010 1406

Analysis Batch: 360-65836
Prep Batch: 360-65482
Units: ug/L

Instrument ID: Inst. B
Lab File ID: B13339.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

LCSD Lab Sample ID: LCSD 360-65482/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/13/2010 1436
Date Prepared: 11/05/2010 1406

Analysis Batch: 360-65836
Prep Batch: 360-65482
Units: ug/L

Instrument ID: Inst. B
Lab File ID: B13340.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4,5-Trichlorophenol	80	89	30 - 130	11	20		
2,4,6-Trichlorophenol	76	84	30 - 130	10	20		
2,4-Dichlorophenol	64	71	30 - 130	11	20		
2,4-Dinitrophenol	68	101	30 - 130	39	20		*
2,4-Dimethylphenol	62	69	30 - 130	9	20		
2-Chlorophenol	65	75	40 - 130	14	20		
2-Methylphenol	60	68	30 - 130	13	20		
2-Nitrophenol	58	69	30 - 130	17	20		
3 & 4 Methylphenol	62	72	30 - 130	15	20		
4,6-Dinitro-2-methylphenol	74	105	30 - 130	35	20		*
4-Chloro-3-methylphenol	67	75	30 - 130	10	20		
4-Nitrophenol	35	42	30 - 130	18	20	J	J
Acenaphthene	76	84	40 - 140	10	20		
Acenaphthylene	67	76	40 - 140	13	20		
Anthracene	81	92	40 - 140	13	20		
Benzo[a]anthracene	84	93	40 - 140	10	20		
Benzo[a]pyrene	83	95	40 - 140	13	20		
Benzo[b]fluoranthene	76	84	40 - 140	10	20		
Benzo[g,h,i]perylene	90	102	40 - 140	12	20		
Benzo[k]fluoranthene	79	92	40 - 140	15	20		
Bis(2-ethylhexyl) phthalate	89	91	40 - 140	2	20		
Butyl benzyl phthalate	78	78	40 - 140	0	20		
Chrysene	80	88	40 - 140	9	20		
Di-n-butyl phthalate	88	92	40 - 140	4	20		
Di-n-octyl phthalate	74	77	40 - 140	4	20		
Dibenz(a,h)anthracene	83	98	40 - 140	17	20		
Diethyl phthalate	79	87	40 - 140	9	20		
Dimethyl phthalate	76	84	40 - 140	10	20		
Fluoranthene	84	92	40 - 140	10	20		
Fluorene	77	88	40 - 140	14	20		
Indeno[1,2,3-cd]pyrene	86	100	40 - 140	15	20		
Naphthalene	56	62	40 - 140	10	20		
Pentachlorophenol	76	92	30 - 130	19	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65482**

**Method: 8270C LL
Preparation: 3510C**

LCS Lab Sample ID: LCS 360-65482/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/13/2010 1401
Date Prepared: 11/05/2010 1406

Analysis Batch: 360-65836
Prep Batch: 360-65482
Units: ug/L

Instrument ID: Inst. B
Lab File ID: B13339.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

LCSD Lab Sample ID: LCSD 360-65482/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/13/2010 1436
Date Prepared: 11/05/2010 1406

Analysis Batch: 360-65836
Prep Batch: 360-65482
Units: ug/L

Instrument ID: Inst. B
Lab File ID: B13340.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Phenanthrene	78	86	40 - 140	9	20		
Phenol	26	30	30 - 130	14	20	J *	J
Pyrene	79	83	40 - 140	5	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2,4,6-Tribromophenol	82		89		15 - 110		
2-Fluorobiphenyl	71		77		30 - 130		
2-Fluorophenol	39		40		15 - 110		
Phenol-d5	25		28		15 - 110		
Terphenyl-d14	71		74		30 - 130		
Nitrobenzene-d5	63		68		30 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65487

Lab Sample ID: MB 360-65487/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0741
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Method: 608 Preparation: CWA_Prep

Instrument ID: Inst. P
Lab File ID: P5640.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.27	1.0
PCB-1221	ND		0.44	1.0
PCB-1232	ND		0.34	1.0
PCB-1242	ND		0.18	1.0
PCB-1248	ND		0.38	1.0
PCB-1254	ND		0.34	1.0
PCB-1260	ND		0.25	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	76	30 - 150
DCB Decachlorobiphenyl	83	30 - 150

Method Blank - Batch: 360-65487

Lab Sample ID: MB 360-65487/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0741
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Method: 608 Preparation: CWA_Prep

Instrument ID: Inst. P
Lab File ID: P5640.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.27	1.0
PCB-1221	ND		0.44	1.0
PCB-1232	ND		0.34	1.0
PCB-1242	ND		0.18	1.0
PCB-1248	ND		0.38	1.0
PCB-1254	ND		0.34	1.0
PCB-1260	ND		0.25	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
DCB Decachlorobiphenyl	77	30 - 150

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65487**

**Method: 608
Preparation: CWA_Prep**

LCS Lab Sample ID: LCS 360-65487/4-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0806
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Instrument ID: Inst. P
Lab File ID: P5641.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-65487/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0830
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Instrument ID: Inst. P
Lab File ID: P5642.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
PCB-1016	90	104	50 - 114	14	50		
PCB-1260	83	96	8 - 127	14	50		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Tetrachloro-m-xylene	80		87		30 - 150		
DCB Decachlorobiphenyl	79		84		30 - 150		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65487**

**Method: 608
Preparation: CWA_Prep**

LCS Lab Sample ID: LCS 360-65487/4-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0806
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Instrument ID: Inst. P
Lab File ID: P5641.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: SECONDARY

LCSD Lab Sample ID: LCSD 360-65487/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 0830
Date Prepared: 11/05/2010 1500

Analysis Batch: 360-65596
Prep Batch: 360-65487
Units: ug/L

Instrument ID: Inst. P
Lab File ID: P5642.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume: 2 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
PCB-1016	85	91	50 - 114	7	50		
PCB-1260	77	82	8 - 127	6	50		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Tetrachloro-m-xylene	87		86		30 - 150		
DCB Decachlorobiphenyl	73		73		30 - 150		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65713

Lab Sample ID: MB 360-65713/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1628
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Method: 8011 Preparation: 8011

Instrument ID: Inst. U
Lab File ID: U14311.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Ethylene Dibromide	ND		0.013	0.020

Surrogate	% Rec	Acceptance Limits
1,1,1,2-Tetrachloroethane	96	70 - 130

Method Blank - Batch: 360-65713

Lab Sample ID: MB 360-65713/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1628
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Method: 8011 Preparation: 8011

Instrument ID: Inst. U
Lab File ID: U14311.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
Ethylene Dibromide	ND		0.013	0.020

Surrogate	% Rec	Acceptance Limits
1,1,1,2-Tetrachloroethane	96	70 - 130

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65713**

**Method: 8011
Preparation: 8011**

LCS Lab Sample ID: LCS 360-65713/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1649
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Instrument ID: Inst. U
Lab File ID: U14312.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-65713/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1711
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Instrument ID: Inst. U
Lab File ID: U14313.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylene Dibromide	121	114	70 - 130	6	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
1,1,1,2-Tetrachloroethane	117		107		70 - 130		

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-65713**

**Method: 8011
Preparation: 8011**

LCS Lab Sample ID: LCS 360-65713/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1649
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Instrument ID: Inst. U
Lab File ID: U14312.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: SECONDARY

LCSD Lab Sample ID: LCSD 360-65713/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1711
Date Prepared: 11/10/2010 1130

Analysis Batch: 360-65718
Prep Batch: 360-65713
Units: ug/L

Instrument ID: Inst. U
Lab File ID: U14313.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylene Dibromide	114	104	70 - 130	9	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
1,1,1,2-Tetrachloroethane	106		104		70 - 130		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65462

Method: 200.7 Rev 4.4
Preparation: 200.7

Lab Sample ID: MB 360-65462/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/12/2010 0007
Date Prepared: 11/05/2010 0917

Analysis Batch: 360-65777
Prep Batch: 360-65462
Units: ug/L

Instrument ID: Varian ICP
Lab File ID: 111110g.csv
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Iron	15.7	J	14	100
Nickel	ND		1.2	10
Zinc	ND		6.6	50

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-65462

Method: 200.7 Rev 4.4
Preparation: 200.7

LCS Lab Sample ID: LCS 360-65462/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/12/2010 0014
Date Prepared: 11/05/2010 0917

Analysis Batch: 360-65777
Prep Batch: 360-65462
Units: ug/L

Instrument ID: Varian ICP
Lab File ID: 111110g.csv
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 360-65462/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/12/2010 0021
Date Prepared: 11/05/2010 0917

Analysis Batch: 360-65777
Prep Batch: 360-65462
Units: ug/L

Instrument ID: Varian ICP
Lab File ID: 111110g.csv
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Iron	103	101	85 - 115	2	20		
Nickel	103	100	85 - 115	3	20		
Zinc	100	98	85 - 115	2	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65467

Method: 200.8

Preparation: 200.8

Lab Sample ID: MB 360-65467/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1324
Date Prepared: 11/05/2010 0936

Analysis Batch: 360-65641
Prep Batch: 360-65467
Units: ug/L

Instrument ID: ICPMS
Lab File ID: 110910b.rep
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Silver	ND		0.25	1.0
Arsenic	ND		0.49	1.0
Cadmium	ND		0.25	1.0
Copper	ND		0.56	1.0
Lead	ND		0.14	1.0
Antimony	ND		0.74	1.0
Selenium	0.909	J	0.71	1.0

Lab Control Sample/

Method: 200.8

Lab Control Sample Duplicate Recovery Report - Batch: 360-65467

Preparation: 200.8

LCS Lab Sample ID: LCS 360-65467/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1339
Date Prepared: 11/05/2010 0936

Analysis Batch: 360-65641
Prep Batch: 360-65467
Units: ug/L

Instrument ID: ICPMS
Lab File ID: 110910b.rep
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 360-65467/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/09/2010 1341
Date Prepared: 11/05/2010 0936

Analysis Batch: 360-65641
Prep Batch: 360-65467
Units: ug/L

Instrument ID: ICPMS
Lab File ID: 110910b.rep
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Silver	109	110	85 - 115	1	20		
Arsenic	95	100	85 - 115	6	20		
Cadmium	105	108	85 - 115	2	20		
Copper	111	112	85 - 115	1	20		
Lead	103	107	85 - 115	3	20		
Antimony	102	107	85 - 115	5	20		
Selenium	100	101	85 - 115	1	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65607

Lab Sample ID: MB 360-65607/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1314
Date Prepared: 11/09/2010 1048

Analysis Batch: 360-65675
Prep Batch: 360-65607
Units: ug/L

Method: 245.1 Preparation: 245.1

Instrument ID: Hg Analyzer
Lab File ID: 111010b.PRN
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.060	0.20

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-65607

Method: 245.1 Preparation: 245.1

LCS Lab Sample ID: LCS 360-65607/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1317
Date Prepared: 11/09/2010 1048

Analysis Batch: 360-65675
Prep Batch: 360-65607
Units: ug/L

Instrument ID: Hg Analyzer
Lab File ID: 111010b.PRN
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 360-65607/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1319
Date Prepared: 11/09/2010 1048

Analysis Batch: 360-65675
Prep Batch: 360-65607
Units: ug/L

Instrument ID: Hg Analyzer
Lab File ID: 111010b.PRN
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	93	94	80 - 120	2	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65617

Method: 300.0

Preparation: N/A

Lab Sample ID: MB 360-65617/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/08/2010 2250
Date Prepared: N/A

Analysis Batch: 360-65617
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL	RL
Chloride	ND		1.0	1.0

Lab Control Sample - Batch: 360-65617

Method: 300.0

Preparation: N/A

Lab Sample ID: LCS 360-65617/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/08/2010 2305
Date Prepared: N/A

Analysis Batch: 360-65617
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	40.0	41.3	103	85 - 115	

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65445

Method: 7196A
Preparation: N/A

Lab Sample ID: MB 360-65445/9
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0821
Date Prepared: N/A

Analysis Batch: 360-65445
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL	RL
Cr (VI)	ND		0.0050	0.0050

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-65445

Method: 7196A
Preparation: N/A

LCS Lab Sample ID: LCS 360-65445/10
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0821
Date Prepared: N/A

Analysis Batch: 360-65445
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 360-65445/11
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0821
Date Prepared: N/A

Analysis Batch: 360-65445
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Cr (VI)	98	101	80 - 120	3	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 360-65445

Method: 7196A

Preparation: N/A

MS Lab Sample ID: 360-30966-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0821
Date Prepared: N/A

Analysis Batch: 360-65445
Prep Batch: N/A

Instrument ID: Jenway UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 360-30966-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0821
Date Prepared: N/A

Analysis Batch: 360-65445
Prep Batch: N/A

Instrument ID: Jenway UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cr (VI)	103	98	75 - 125	5	20		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65503

Lab Sample ID: MB 360-65503/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1659
Date Prepared: 11/06/2010 1004

Analysis Batch: 360-65697
Prep Batch: 360-65503
Units: mg/L

Method: L204001A CN Preparation: Distill/CN

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Cyanide, Total	ND		0.010	0.010

Lab Control Sample - Batch: 360-65503

Lab Sample ID: LCS 360-65503/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/10/2010 1700
Date Prepared: 11/06/2010 1004

Analysis Batch: 360-65697
Prep Batch: 360-65503
Units: mg/L

Method: L204001A CN Preparation: Distill/CN

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.100	0.103	103	85 - 115	

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65481

Lab Sample ID: MB 360-65481/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1554
Date Prepared: 11/05/2010 1359

Analysis Batch: 360-65490
Prep Batch: 360-65481
Units: mg/L

Method: L210-001A Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Phenols, Total	ND		0.010	0.010

Lab Control Sample - Batch: 360-65481

Lab Sample ID: LCS 360-65481/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1555
Date Prepared: 11/05/2010 1359

Analysis Batch: 360-65490
Prep Batch: 360-65481
Units: mg/L

Method: L210-001A
Preparation: Distill/Phenol
Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenols, Total	0.100	0.102	102	85 - 115	

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65468

Lab Sample ID: MB 360-65468/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1109
Date Prepared: N/A

Analysis Batch: 360-65468
Prep Batch: N/A
Units: mg/L

Method: SM 2540D
Preparation: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL	RL
Total Suspended Solids	ND		2.0	2.0

Lab Control Sample - Batch: 360-65468

Lab Sample ID: LCS 360-65468/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 1109
Date Prepared: N/A

Analysis Batch: 360-65468
Prep Batch: N/A
Units: mg/L

Method: SM 2540D
Preparation: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	200	191	96	85 - 115	

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Method Blank - Batch: 360-65457

Method: SM 4500 Cl F
Preparation: N/A

Lab Sample ID: MB 360-65457/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/04/2010 0909
Date Prepared: N/A

Analysis Batch: 360-65457
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL	RL
Chlorine	ND		0.020	0.020

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-65457

Method: SM 4500 Cl F
Preparation: N/A

LCS Lab Sample ID: LCS 360-65457/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/04/2010 0909
Date Prepared: N/A

Analysis Batch: 360-65457
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 360-65457/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/04/2010 0909
Date Prepared: N/A

Analysis Batch: 360-65457
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chlorine	91	96	85 - 115	5	25		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Lab Control Sample - Batch: 360-65464

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID: LCS 360-65464/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0857
Date Prepared: N/A

Analysis Batch: 360-65464
Prep Batch: N/A
Units: SU

Instrument ID: Autotitrator
Lab File ID: 10110500.TXT
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	6.00	5.970	100	90 - 110	

Duplicate - Batch: 360-65464

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID: 360-30966-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/05/2010 0904
Date Prepared: N/A

Analysis Batch: 360-65464
Prep Batch: N/A
Units: SU

Instrument ID: Autotitrator
Lab File ID: 10110500.TXT
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	6.77	6.900	2	20	

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New Hampshire (NELAC) prim.	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P			
1103.1	E.coli		ambient/ source			
Enterolert	Enterococcus					
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction	SW				
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethane compounds	P	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric	P	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total	P	NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Login Number: 30966
Creator: Cagan, Marissa
List Number: 1

List Source: TestAmerica Westfield

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 360-30966-1

Login Number: 30966

Creator: Lunt, Jeff T

List Number: 1

List Source: TestAmerica Chicago

List Creation: 11/06/10 12:43 PM

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

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[illegible]