321-A-5 2008-0014

569 Riverside St.

Metal Recycling Facility

Prolerized New England

add to Spreadsheet

April 23, 2010

To: Rick Knowland
Barbara Barhydt
From: David Margolis-Pineo
Re: Polcrized New England Company LLC
Changes to Approved Site Plan

The Department of Public Services has the following comments:

1. The City is aware that ground water monitoring wells are on the site to monitor contamination from the former owner, Lucas Tree.
2. The applicant is asked to provide three foot sumps with "Casco Traps" in all proposed catch basins including the proposed outlet structure in Pond 51.
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4. The applicant will need a Multi-sector Industrial Stormwater Permit from Maine DEP for their stormwater management system under which they will be required to develop an approved Stormwater Pollution Prevention Plan (SWPPP) and O&M plan with maintenance schedule. Facility staff will need to be trained in pollution prevention & good housekeeping under the SWPPP. The owner/operator of the facility is also required to submit annual stormwater management system inspection reports to the city per Chapter 24. Note that the state stormwater permit has a 5-year re-certification cycle.
5. Recommend use of a floating absorbent/filter media in the catch basin between the building & concrete pad to capture any leaks or spills that would enter the existing drain and flow to the receiving water body; Include O&M plan with schedule.
6. Building floor drains, if any, should connect to the sanitary sewer, not a storm drain. If floor drains or any other process waste is connected to the sanitary system, the City is to be notified. Sanitary waste from this facility will be directed to the City of Westbrook under an Inter-municipal Agreement.
7. Bio-retention basin near Riverside Street: This structure ties into an existing storm drain operated by the city, which conveys runoff from portions of Riverside Street to the nearby receiving water. Does the city have a drainage easement for this conveyance (none shown on plan)? If not, one should be developed. It should be noted that by allowing the applicant to connect to this conveyance (part of the city's MS4), the city does assume some

PERKINS | THOMPSON
ATTORNEYS & COUNSELORS AT LAW

ESTABLISHED 187-

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www.perkinsthompson.com

October 30, 2009

VIA EMAIL AND FIRST CLASS MAIL

Mr. Rick Knowland
Portland Planning Director
Department of Planning and Development
389 Congress Street
Portland ME 04101

Re: Prolerized New England Company LLC Scrap Metal Recycling Facility

Dear Rick:

On behalf of Prolerized New England Company LLC and further to our conversation on Wednesday, this letter is to summarize our understanding of the proposed timing to satisfy the various outstanding specific conditions of approval that were attached to our site plan approval, granted by the Planning Board in July 2008, as formalized in an approval letter dated September 9, 2008 from Chair Janice Tevanian to Mr. Carl Beal, civil engineer.

Under separate cover, Carl Beal will be delivering today multiple sets of the revised site plan to your office for your review. As you know, we are under a tight timeframe in which to begin construction, due to the weather, so would appreciate it if all remaining issues could be resolved, and the performance guarantee amount approved within the next week, if possible.

Following is a description of each of the 10 specific conditions of approval, and how we either understand they have been addressed, or how we propose to address them:

1. As we discussed, most of the items in Condition 1 are designed to address any potential issues that may arise post-construction. However, we understand the City would like to review our Annual Monitoring Plan of Vehicle Queuing that will identify potential issues and mitigation measures, which shall be added to the current operations management plan. Per our discussion, we propose to submit a draft of the Annual Traffic Monitoring Plan by January 1, 2010 to the City for its review.

2. The landscape plan was revised and approved by the City Arborist in October of 2008. Due to the inclusion of a larger screening berm at the northeast corner of the site and a reduction in the size of the building, the landscaping at the berm has been revised.

Please refer to drawing L2. Both drawing L1 & L2 will be submitted by Carl Beal as part of the revised plan packet.

3. The site plan has been revised in accordance with the comments of Dan Goyette and will be submitted by Carl Beal as part of the revised plan packet.

4. As we discussed, during the Planning Board hearing, any potential noise mitigation measures were intended to be addressed by this condition after operations have been in effect long enough to be able to accurately measure the sound from regular operations, so this condition will be met post-construction. As the building design is not final, we propose that the building elevations for the flat auto storage and non-ferrous storage buildings be submitted to confirm conformance with the I-H height requirement at the time that the building design is finalized in 2010.

5. We understand that the Fire Department review will occur in connection with the Planning Department's review next week, with a focus on traffic circulation/egress/ingress, although it is our recollection that the Fire Department reviewed those issues during the application process before the Planning Board, so we would hope such a review would be completed quickly. To the extent there are outstanding issues in connection with location and design of storage of any flammable liquids used in the ordinary course of operations, again, those locations and designs are not final and, if necessary, would need to be submitted for review in 2010, when there is greater certainty about the details of the building design.

6. The Portland Water District has approved a sewer easement for the property, although a final location for the easement has not been determined. Given that the exact building location and design may change slightly during the final design stages in 2010, we would propose that this easement be finalized and submitted prior to a building permit issuing in 2010.

7. Our understanding is that the City has the operations procedures manual, which was submitted during the Planning Board application process, and that there are no issues with that manual.

8. As we discussed, we propose to submit a drainage maintenance agreement with the City by June 1, 2010. A stormwater facilities review would be more appropriately scheduled following construction of the detention/treatment pond in the time prior to the 2010 building permit being issued, or perhaps post-construction depending on the nature of the review. Stormwater monitoring is obviously a post-construction issue, including the annual report to the City on that subject.

9. As we discussed, a note encapsulating the condition about reducing light during non-operating hours will be added to the site plan C2, as part of the revised site plan packet to be delivered by Carl Beal.

10. The performance guarantee shall be extended to three years for landscaping (only). The amount estimated to be needed to implement the landscaping plan shall be retained in the letter

ACADIA
ENVIRONMENTAL TECHNOLOGY

November 11, 2010

Rick Knowland, Senior Planner
Planning & Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Groundwater Monitoring Results
Prolerized New England Company
568 Riverside Street

Dear Mr. Knowland:

At the request of Prolerized New England Company, LLC/Schnitzer Northeast, Acadia Environmental Technology (Acadia) conducted groundwater monitoring at the Schnitzer Northeast scrap metal recycling facility located at 568 Riverside Street in Portland, Maine. This letter report is submitted to document that monitoring.

Background

The facility became operational on September 14, 2010. This monitoring was performed to meet the requirements for annual testing of groundwater (Rule #8 (a)) under the Scrap Metal Recycling Facility Rules (Rules) promulgated by the City of Portland (City) as authorized under Chapter 31, the ordinance for Scrap Metal Recycling Facilities, Revised July 19, 2006, of its Code of Ordinances.

The monitoring wells that were sampled are designated as MW-1, MW-2, and MW-3, whose location is shown on the site plan, Sheet D4, which follows the test of this report. These monitoring wells were installed for the City of Portland in November 2007 under the oversight of Tewhey Associates as part of the evaluation of the property in advance of purchase. Documentation of the installation, development and initial monitoring of these wells is found in the January 2008 report prepared by Tewhey Associates and entitled *Phase II Supplemental Soil and Groundwater Investigation, Lucas Tree Expert Site, 636 Riverside Street, Portland, Maine* prepared for the City of Portland, Maine.

Scope of Work

The scope of work performed to meet this requirement included:

- Groundwater sampling by low-flow methods,

- Laboratory analysis of groundwater samples for VOCs (volatile organic compounds), SVOCs (semivolatile organic compounds), PCBs (polychlorinated biphenyls), RCRA 8 metals, antimony (Sb), nickel (Ni), zinc (Zn), and copper (Cu), extractable petroleum hydrocarbons (EPH), and volatile petroleum hydrocarbons (VPH); and
- Preparation of this report documenting the monitoring results.

Methodology

Groundwater Sampling

Groundwater sampling was completed according to the Maine Department of Environmental Protection's (MEDEP) Standard Operating Procedure RWM-DR#003 (SOP DR003), titled *Groundwater Sampling Using Low Flow Purging and Sampling Protocol,* which is an updated version of the 1996 SOP protocol specified in Rule #8(a).

At the commencement of sampling, static groundwater levels were measured with a Heron Dipper-T water level meter to the nearest 0.01 foot from the top of casing. Dedicated tubing was installed in each well prior to sampling. The depth of the intake was in the screened interval within 3 to 5 feet of the bottom of the well. A peristaltic pump was used to purge the wells. The pumping rate was adjusted to minimize draw down during purging and sampling. A YSI 600XL with flow cell was used to monitor field parameters during low flow purging. Field parameters included temperature, specific conductance, pH, dissolved oxygen, oxidation-reduction potential and turbidity. Samples were collected when field parameters stabilized to within 10 percent of the prior reading for 3 consecutive readings taken at three to five minute intervals.

Groundwater samples were placed into laboratory-supplied containers with preservatives as specified by each analytical method, and stored on ice. Chain of custody documentation was maintained.

Laboratory Analysis of Groundwater Samples

Groundwater samples were submitted to Katahdin Analytical Services located in Scarborough, Maine for analysis of the parameters specified by the City's Scrap Metal Recycling Facility Rules. These include the following: VOCs by EPA Method 8260B, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, RCRA 8 metals by EPA method 6010/7040, and Sb, Ni, Zn, and Cu by EPA Method 6010/6020, EPH by MADEP EPH 04-1.1, and VPH by MADEP VPH 04-1.1.

When written the rules specified the testing for petroleum hydrocarbons using the diesel range organics analysis (DRO) by Maine Health and Environmental Testing Laboratory, HETL, Method 4.1.25 and gasoline range organics (GRO) by Maine HETL Method 4.2.17. Since that time, however, the MEDEP has in most cases switched to the use of the EPH and VPH methods.

Results

Hydrogeology

As written in the January 2008 Tewhey report, each of the monitoring wells was installed in thick, massive deposits of clay and silty clay that underlie the site. Shallow groundwater flow at the site is northward, toward the Presumpscott River.

The depth of the wells range from 18 to 22 feet, and each was constructed with a 2-inch diameter schedule 40 PVC well screen (10-ft long) and riser. Static groundwater levels were measured prior to sampling each well on September 16, 2010. The depth to water from the top of the well casing ranged from 7.60 feet in MW-1 to 12.20 in MW-2. Field data are summarized in Table 1 and data sheets are included in Appendix B.

Samples from all wells were collected on September 16, 2010 according to the methodology described above; however MW-2 had to be re-sampled because the samples for PCBs and SVOCs were inadvertently placed into containers preserved with acid. Therefore, MW-2 was re-sampled on September 27 for these parameters. On this date MW-2 was sampled by adjusting the pump to operate at the same rate as was used for sampling on September 16. The depth to water from top of casing before pumping was measured to be 15.25 feet as compared to 12.20 feet on September 16, 2010.

Groundwater Quality

Groundwater quality data is summarized below in Table 1. Only parameters that were measured at levels equal to or greater than their respective practical quantitation limit (PQL) are listed in Table 1. The full laboratory report is included as Appendix A.

None of the monitoring well samples contained SVOCs, VOCs, PCBs, EPH or VPH at a concentration equal to or above their PQL. None of the parameters were measured at levels that exceed their respective Maine Center for Disease Control and Prevention (CDC) Maximum Exposure Guideline (MEG) for Drinking Water.

Table 1 – Detected Compounds in Groundwater

Monitoring Location	Parameter	Result (mg/L)	MEG (mg/L)
MW-1	Barium	0.012	2.0
MW-2	Arsenic	0.008	0.010
	Barium	0.0202	2.0
	Bis(2 ethylhexyl)phthalate	0.017	0.025
MW-3	Barium	0.0202	2.0

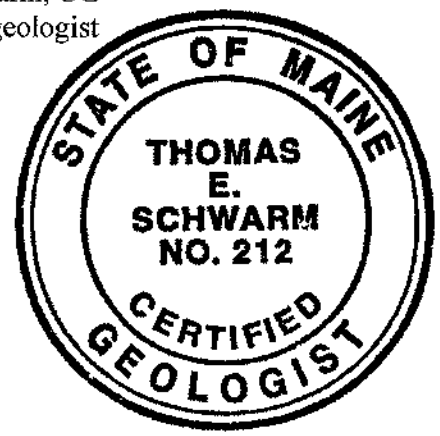
Conclusion

Groundwater monitoring was performed at the Prolerized New England site at 568 Riverside Street as required under the City of Portland Scrap Metal Recycling Facility Rules. Monitoring results showed that none of the parameters measured exceeds applicable drinking water standards, the Maine MEGs.

Sincerely,

Mark Arienti, P.E.
Senior Environmental Engineer

Thomas E. Schwarm, CG
President/Hydrogeologist



cc: Keri Fitzpatrick, Schnitzer Northeast
Randy McMullin, MEDEP

Katahdin ANALYTICAL SERVICES

nelac Cert. No. E87604

September 28, 2010

Mr. Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

RE: Katahdin Lab Number: SD5711
Project ID: Riverside
Project Manager: Ms. Kelly Perkins
Sample Receipt Date(s): September 16, 2010

Dear Mr. Arienti:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Quality Control Data Summary
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to http://www.katahdinlab.com/cert.html for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES

Deborah J Nadeau
Authorized Signature

09/28/2010
Date

Appendix A: Laboratory Report

Groundwater Monitoring, September 2010
Prolerized New England Company
568 Riverside Street
Portland, Maine

Prepared for:

Prolerized New England Company
Portland, Maine

Prepared by:

Acadia Environmental Technology
48 Free Street
Portland, Maine 04101

April 23, 2010

To: Rick Knowland
Barbara Barhydt
From: David Margolis-Pineo
Re: Polerized New England Company LLC
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CIVIL
CONSULTANTS

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293 Main Street
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Maine
03908
207-384-2550

April 1, 2010

Mr. Rick Knowland - Portland Planning Director
Department of Planning and Development
389 Congress Street
Portland, ME 04101

Re: PNE Scrap Facility – Changes to Approved Site Plan

Dear Rick:

As you know, Prolerized New England Company, LLC (PNE) received Site Plan Approval on July 8, 2008 for a new scrap metal recycling facility on Riverside Street in Portland, Maine. On November 12, 2009 the Portland Planning Authority approved revisions to the record site plans, generated during the preparation of construction documents.

Due to changes in the scrap metal market that occurred in 2009, PNE is making adjustments to both their business model and the proposed facility. As a result, PNE is submitting additional changes to the site plans, for City review and approval, prior to the startup of 2010 construction.

The following summary of changes is presented to assist the City with their review:

1. The Process Building has been shortened 5 feet and is now 60' by 175'. This building will be constructed in 2010. The higher 80' by 100' Bailer Building wing will not be constructed in 2010, but may be added at a future date.
2. A 25' by 60' Car Processing area will be constructed on the north end of the building. It will be covered by continuing the building roofline. It will have walls on four sides, with a 25' by 16' opening on the end.
3. The Process Building location has been shifted 33' West and 10' north of the approved location. The finish floor has been lowered 1 foot.
4. Outside storage bins will not be constructed in 2010. They may be added at some future date.
5. The Flat Auto Building will not be constructed in 2010. Utility conduits will be installed from the process building to the location, to allow it to be added in the future.
6. The configuration of the screening berm has changed to accommodate additional volume of on-site soils that may not be used as fill and to reflect the postponement of storage bin construction.

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April 1, 2010

Mr. Rick Knowland - Portland Planning Director
Department of Planning and Development
389 Congress Street
Portland, ME 04101

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April 1, 2010

Mr. Rick Knowland - Portland Planning Director
Department of Planning and Development
389 Congress Street
Portland, ME 04101

Re: PNE Scrap Facility – Changes to Approved Site Plan

Dear Rick:

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Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 9-19 To 9-24-11

Comments: _____

Name: David Hamlin Date: 9-19-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 9-26 To 10-1-11

Comments:

Name: David Hamlin **Date:** 9-28-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 10-10 to 10-15-11

Comments:

Name: David Hamlin **Date:** 10-10-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 10-17 to 10-22-11

Comments:

Name: David Hamlin **Date:** 10-17-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 10-24-11 10-29-11

Comments:

Name: David Hamlin **Date:** 10-29-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 10-31 to 11-5-11

Comments:

Name: David Hamlin **Date:** 10-31-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 11-7 To 11-11-11

Comments:

Name: David Hamlin **Date:** 11-7-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 11-14 to 11-18-11

Comments:

Name: David Hamlin **Date:** 11-14-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 11-21 To 11-23-11

Comments:

Name: David Hamlin **Date:** 11-21-11

Signature: David Hamlin

Weekly Facility Inspection Checklist (continued)

Inspection for the Week of 11-28 To 12-2-11

Comments:

Name: David Agustin **Date:** 11-28-11

Signature:

Weekly Facility Inspection Checklist

Inspection for the Week of 12-12 To 12-16-11

1. Waste Oil Accumulation Area:

	Satisfactory	
	Yes	No
Are all drums and containers are in good condition?	✓	
Are all drums and containers closed?	✓	
All drums/containers are marked with a Used Oil label?	✓	
Are all drum labels clearly visible and readable?	✓	
Secondary containment devices are dry and free of cracks?	✓	

2. Lead Acid Battery Storage:

	Satisfactory	
	Yes	No
Is the area clearly defined?	✓	
Are the batteries stored on pallets?	✓	
Is a spill kit and apron available?	✓	
Any leaking batteries contained and moved to hazardous waste area?	✓	

3. Hazardous and Special Waste Exclusion Area:

	Satisfactory	
	Yes	No
Is the area clearly defined and marked?	✓	
Are containers dented bulging, rusted or leaking?		✓
Are all containers of waste closed?.	✓	
The drum/container is marked with a Hazardous Waste label with accumulation start date?	✓	
Is there access to each container to allow reading the label?	✓	
Are all waste containers on a firm working surface?	✓	
Is containment provided for 110% of the largest container?	✓	
Is the area secure (locked)?	✓	

4. Universal Waste Collection Area (CRTs; fluorescent lamps; mercury switches, thermometers, and batteries; PCB ballast):

	Satisfactory	
	Yes	No
Are containers in good condition and intact?	✓	
Do all containers have a universal waste label?	✓	
Are all containers of waste closed?	✓	
Are all containers marked with accumulation start date?	✓	
Is the full date marked on all full containers?	✓	
Any accumulation start dates over 365 days?		✓
Any full dates greater than 90 days old?		✓
What is the total number of Universal Waste Items? Qty 16		
Is the area secure (locked)?	✓	

Schnitzer

Weekly Facility Housekeeping Review and Inspection

Location: Portland

Date: 12/9/11

Inspector: Joe Murphy

Facility Appearance

		Yes	No	
1)	Facility entrance and roadway are clear of excess litter/debris?	X		
2)	Gates/Fences/Signs are intact and working properly?		X	Repairs have been set up
3)	Landscaping is manicured or Snow/ice adequately cleared?	X		
4)	Parking area lighting is adequate and properly working?	X		
5)	Parking areas are free of excess litter/debris?	X		
6)	Entrance/Parking area spills are cleaned up/speedy dry is removed?	X		
7)	Waste receptacles are of adequate size and emptied accordingly?	X		
8)	Designated smoking area is neat and orderly?	X		
9)	Facility is adequately swept for dirt/debris?	X		

Office/Scale House

		Yes	No
1)	Office/Scalehouse entrance is neat, orderly and clean?	X	
2)	Cigarette extinguishing receptacles are in place and empty?	X	
3)	Work areas are neat, orderly and free of excess clutter?	X	
4)	Waste receptacles are of adequate size and emptied accordingly?	X	
5)	Break area and conference areas are neat and orderly?	X	
6)	Records storage boxes are not in excess/removed accordingly?	X	

Ferrous Receiving and Storage Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Containers for gaseous cylinders/sealed units are of adquate size and emptied as required?	X	
4)	Inventory is in control with adequate segregation between material?	X	
5)	Loose gas/fuel tanks are properly stored (not loose/on the ground)?	X	
6)	Recovered non-ferrous is removed daily?	X	

Ferrous Baling/Crushing Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Inventory is in control with adequate segregation between product?	X	
4)	Drip pans are of adequate size, in place and emptied accordingly?	X	
5)	Processing area is cleaned daily and free of excess debris?	X	
6)	Operator's cab is neat, orderly and free of excess clutter?	X	

Schnitzer

Weekly Facility Housekeeping Review and Inspection

Location: Portland

Date: 12/6/11

Inspector: Joe Murphy

Facility Appearance

		Yes	No
1)	Facility entrance and roadway are clear of excess litter/debris?	X	
2)	Gates/Fences/Signs are intact and working properly?	X	
3)	Landscaping is manicured or Snow/ice adequately cleared?	X	
4)	Parking area lighting is adequate and properly working?	X	
5)	Parking areas are free of excess litter/debris?	X	
6)	Entrance/Parking area spills are cleaned up/speedy dry is removed?	X	
7)	Waste receptacles are of adequate size and emptied accordingly?	X	
8)	Designated smoking area is neat and orderly?	X	
9)	Facility is adequately swept for dirt/debris?	X	

Office/Scale House

		Yes	No
1)	Office/Scalehouse entrance is neat, orderly and clean?	X	
2)	Cigarette extinguishing receptacles are in place and empty?	X	
3)	Work areas are neat, orderly and free of excess clutter?	X	
4)	Waste receptacles are of adequate size and emptied accordingly?	X	
5)	Break area and conference areas are neat and orderly?	X	
6)	Records storage boxes are not in excess/removed accordingly?	X	

Ferrous Receiving and Storage Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Containers for gaseous cylinders/sealed units are of adquate size and emptied as required?	X	
4)	Inventory is in control with adequate segregation between material?	X	
5)	Loose gas/fuel tanks are properly stored (not loose/on the ground)?	X	
6)	Recovered non-ferrous is removed daily?	X	

Ferrous Baling/Crushing Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Inventory is in control with adequate segregation between product?	X	
4)	Drip pans are of adequate size, in place and emptied accordingly?	X	
5)	Processing area is cleaned daily and free of excess debris?	X	
6)	Operator's cab is neat, orderly and free of excess clutter?	X	

Schnitzer

Weekly Facility Housekeeping Review and Inspection

Location: Portland

Date: 12/2/11

Inspector: Joe Murphy

Facility Appearance

		Yes	No
1)	Facility entrance and roadway are clear of excess litter/debris?	X	
2)	Gates/Fences/Signs are intact and working properly?	X	
3)	Landscaping is manicured or Snow/Ice adequately cleared?	X	
4)	Parking area lighting is adequate and properly working?	X	
5)	Parking areas are free of excess litter/debris?	X	
6)	Entrance/Parking area spills are cleaned up/speedy dry is removed?	X	
7)	Waste receptacles are of adequate size and emptied accordingly?	X	
8)	Designated smoking area is neat and orderly?	X	
9)	Facility is adequately swept for dirt/debris?	X	

Office/Scale House

		Yes	No
1)	Office/Scalehouse entrance is neat, orderly and clean?	X	
2)	Cigarette extinguishing receptacles are in place and empty?	X	
3)	Work areas are neat, orderly and free of excess clutter?	X	
4)	Waste receptacles are of adequate size and emptied accordingly?	X	
5)	Break area and conference areas are neat and orderly?	X	
6)	Records storage boxes are not in excess/removed accordingly?	X	

Ferrous Receiving and Storage Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Containers for gaseous cylinders/sealed units are of adquate size and emptied as required?	X	
4)	Inventory is in control with adequate segregation between material?	X	
5)	Loose gas/fuel tanks are properly stored (not loose/on the ground)?	X	
6)	Recovered non-ferrous is removed daily?	X	

Ferrous Baling/Crushing Area

		Yes	No
1)	Receiving areas are clean and free of excess debris?	X	
2)	Spills are cleaned up/speedy dry is removed accordingly?	X	
3)	Inventory is in control with adequate segregation between product?	X	
4)	Drip pans are of adequate size, in place and emptied accordingly?	X	
5)	Processing area is cleaned daily and free of excess debris?	X	
6)	Operator's cab is neat, orderly and free of excess clutter?	X	

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Dec. 28, 2011
07:28 AM

Login Number: SE8602

Account: ACADIA001 Web
Acadia Environmental Technology, Inc.

Project:

Primary Report Address:
Mark Arienti
Acadia Environmental Technology
48 Free Street

Portland,ME 04101
marienti@acadiaenvironmental.com

Primary Invoice Address:
Accounts Payable
Acadia Environmental Technology
48 Free Street

Portland,ME 04101

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:
CHECK NO.	:
CLIENT PO#	: 059-009
CLIENT PROJECT MANAGE	:
CONTRACT	:
COOLER TEMPERATURE	: 5.1
DELIVERY SERVICES	: KAS
EDD FORMAT	: KAS064-XLS
LOGIN INITIALS	: GN
PM	: JO
PROJECT NAME	: Riverside
QC LEVEL	: II+
REGULATORY LIST	:
REPORT INSTRUCTIONS	: Merge results. Email PDF & EDD, no hc.
SDG ID	:
SDG STATUS	:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE8602-1	SW-1	21-DEC-11 17:05	27-DEC-11			09-JAN-12	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	COURIER-BILLING				
Aqueous	S	SM2540D-TSS	28-DEC-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	28-DEC-11	1L N-Amber Glass		

SE8602-2	SW1-IN	21-DEC-11 17:10	27-DEC-11			09-JAN-12	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8015M-TPH	28-DEC-11	1L N-Amber Glass		

SE8602-3	SW-2	21-DEC-11 16:45	27-DEC-11			09-JAN-12	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	28-DEC-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	28-DEC-11	1L N-Amber Glass		

SE8602-4	SW-3	21-DEC-11 17:15	27-DEC-11			09-JAN-12	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	28-DEC-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	28-DEC-11	1L N-Amber Glass		

Total Samples: *4* ***Total Analyses:*** *8*

12.28.11

Katahdin Analytical Services, Inc. — Sample Receipt Condition Report

Client: Acadia	KAS PM: S. Jo	Sampled By: Client
Project:	KIMS Entry By: GW	Delivered By: KAS
KAS Work Order#: SE8602	KIMS Review By: [signature]	Received By: GW
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 12-7-11 / 15:30

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?					
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 5.1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol,	✓				
TPO4, N+N, TOC, DRO, TPH – pH <2 Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Quality Control Report

Laboratory Control Sample Summary Report

Solids-Nonfilterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG102990-2	LCS	WG102990	28-DEC-11	27-DEC-11	mg/L	882	900	102	80-120	

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: Riverside
PO No:
Sample Date:
Received Date:
Extraction Date: 12/28/11
Analysis Date: 01/05/12
Report Date: 01/06/2012
Matrix: WATER

Lab ID: WG103031-2& WG103031-3
Client ID: WG103031-LCS & WG103031-LCSD
SDG: SE8602
Extracted by: EC
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG103031
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	500	500	NA	392	328	78	66	18	20	45-118

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG103031-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RIVERSIDE SDG No.: SE8602

Lab File ID: AFA2012 Lab Sample ID: WG103031-1

Instrument ID: GC10 Date Extracted: 12/28/11

Matrix: (soil/water) WATER Date Analyzed: 01/05/12

Level: (low/med) LOW Time Analyzed: 1819

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SW-1	SE8602-1	AFA2006	01/05/12	1429
02	SW-2	SE8602-3	AFA2007	01/05/12	1506
03	SW-3	SE8602-4	AFA2009	01/05/12	1621
04	SW1-IN	SE8602-2DL	AFA2010	01/05/12	1704
05	WG103031-LCS	WG103031-2	AFA2013	01/05/12	1856
06	WG103031-LCSD	WG103031-3	AFA2014	01/05/12	1933
07					
08					
09					
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29					
30					

COMMENTS:

FORM IVDRO

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Riverside
PO No:
Sample Date: 12/21/11
Received Date: 12/27/11
Extraction Date: 12/28/11
Analysis Date: 05-JAN-2012 16:21
Report Date: 01/06/2012
Matrix: WATER
% Solids: NA

Lab ID: SE8602-4
Client ID: SW-3
SDG: SE8602
Extracted by: EC
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG103031
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		1800	1.0	75	88
O-Terphenyl		60%			

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Riverside
PO No:
Sample Date: 12/21/11
Received Date: 12/27/11
Extraction Date: 12/28/11
Analysis Date: 05-JAN-2012 15:06
Report Date: 01/06/2012
Matrix: WATER
% Solids: NA

Lab ID: SE8602-3
Client ID: SW-2
SDG: SE8602
Extracted by: EC
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG103031
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		820	1.0	75	71
O-Terphenyl		61%			

Report of Analytical Results

Client: Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

Lab Sample ID: SE8602-1
Report Date: 06-JAN-12
Client PO: 059-009
Project: Riverside
SDG: SE8602

Sample Description	Matrix	Date Sampled	Date Received
SW-1	AQ	21-DEC-11	27-DEC-11

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
Solids-Nonfilterable Residue	45. mg/L	4.0	1.22	SM 2540D	WG102990	28-DEC-11 12:53:00	SM 2540D	27-DEC-11	RO	

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS
(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U — Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

E — Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J — Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

I-7 — The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 — Please refer to cover letter or narrative for further information.

MCL — Maximum Contaminant Level

NL — No limit

NFL — No Free Liquid Present

FLP — Free Liquid Present

NOD — No Odor Detected

TON — Threshold Odor Number

H1 — Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 — Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 — Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 — Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

Katahdin
ANALYTICAL SERVICES

nelac
Cert. No. E87604

January 9, 2012

Mr. Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

RE: Katahdin Lab Number: SE8602
Project ID: Riverside
Project Manager: Ms. Jennifer Obrin
Sample Receipt Date(s): December 27, 2011

Dear Mr. Arienti:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Quality Control Data Summary
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to http://www.katahdinlab.com/cert.html for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES

Deborah J. Nadeau
Authorized Signature

01/09/2012
Date

Are all stormwater BMPs identified in the SWPP operating correctly? **Yes** ☒ **No** ☐

If no, state corrective action_____

Date corrective action was completed_____

Are additional BMPs required for potential pollutants or an industrial activity **Yes** ☐ **No** ☒
If yes document & update SWPPP

If yes, state corrective action_____

Date corrective action was completed_____

Are there signs of erosion in stormwater conveyances or at outfalls? **Yes** ☐ **No** ☒

If yes, state corrective action No erosion at outfalls, however some erosion observed at bioretention basin slope adjacent to paved parking area. Replace eroded area with stone in Spring 2015

Date corrective action was completed_____

Evidence of industrial material, residue, trash or sediment in stormwater conveyance? **Yes** ☐ **No** ☐

If yes, state corrective action some sediment observed in stormwater collection devices such as precast concrete channel. Not enough sediment present to require cleaning yet. Sediment collected in inset near facility entrance catch basin was removed.

Date corrective action was completed_____

Has industrial activity been added or the site expanded? **Yes** ☐ **No** ☒
If yes, document in SWPPP & on site map

If yes, state corrective action or additional BMPs required_____

_____

Date corrective action or BMPs implemented_____

ATTACHMENT D
QUARTERLY COMPREHENSIVE STORMWATER INSPECTIONS

ATTACHMENT D
QUARTERLY COMPREHENSIVE STORMWATER INSPECTIONS

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: 055-009
PO No:
Sample Date:
Received Date:
Extraction Date: 10/04/11
Analysis Date: 10/07/11
Report Date: 10/18/2011
Matrix: WATER

Lab ID: WG98556-2 & WG98556-3
Client ID: WG98556-LCS & WG98556-LCSD
SDG: SE6358
Extracted by: KD
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG98556
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	500	500	NA	371	347	74	69	7	20	45-118

FORM III DRO-1

AEJ2009.d & AEJ2010.d

Quality Control Report

Duplicate Sample Summary Report

pH(Laboratory)

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG98733-2	SE6358-4	WG98733	30-SEP-11	pH	6.7	6.8	1	20

Quality Control Report

Laboratory Control Sample Summary Report

Solids-Nonfilterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG98670-2	LCS	WG98670	06-OCT-11	05-OCT-11	mg/L	882	870	98	80-120	

pH(Laboratory)

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG98733-1	LCS	WG98733	30-SEP-11	N/A	pH	7	7.0	100	80-120	

Katahdin ANALYTICAL SERVICES

600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: ACADIA ENV.	Contact: M. ARIENTI	Phone # ( )	Fax # ( )
Address: 48 FREE ST.	City: PORTLAND	State: ME	Zip Code: 04101
Purchase Order #	Proj. Name / No. 059-009		Katahdin Quote #
Bill (if different than above)		Address	
Sampler (Print / Sign) MARK ARIENTI		Copies To:	

LAB USE ONLY — WORK ORDER #:

KATAHDIN PROJECT NUMBER SE6358

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE / PRESERVATIVES (Filt. ☐Y ☐N for each column)

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	TPH	TSS / PAH								
	WP-IN	9/29/11 / 9:45	W	3	2	1								
	WP-OUT	9/29/11 / 9:20	W	3	2	1								
*	LDD	9/29 / 9:30	W	2	1	1								
*	BID	9/29/11 / 9:15	W	2	1	1								
		/												
		/												
		/												
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		/												
		/												

COMMENTS: * only 1 amber bottle for TPH for LDD and BID samples; hopefully its enough

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	9/30/11 1145	[signature]			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

ORIGINAL

Client: Acadia	KAS PM: KAP	Sampled By: Client
Project:	KIMS Entry By: DM	Delivered By: Client
KAS Work Order#: SE6358	KIMS Review By: KAP	Received By: DM
SDG #:	Cooler: 1 of 1	Date/Time Rec.:

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 5.8
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for meta analysis.
6. Volatiles free of headspace:				✓	
Aqueous: No bubble larger than a pea				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved?	✓				
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2*				✓	
Sulfide - >9				✓	
Cyanide – pH >12					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Detail Report

Sep. 30, 2011
04:06 PM

Login Number: SE6358

Account: ACADIA001
Acadia Environmental Technology, Inc.

Project:

Quote/Incoming: ACDGEN

Login Information

ANALYSIS INSTRUCTIONS	:	Limited Volume for TPH on -3 and -4 (1 liter each).
CHECK NO.	:	
CLIENT PO#	:	
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	5.8
DELIVERY SERVICES	:	
EDD FORMAT	:	KAS064-XLS
LOGIN INITIALS	:	DM
PM	:	KAP
PROJECT NAME	:	059-009
QC LEVEL	:	II+
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Merge results. Email unprotected pdf & EDD, no hc.
SDG ID	:	
SDG STATUS	:	

Primary Report Address:
Mark Arienti
Acadia Environmental Technology
48 Free Street

Portland,ME 04101
marienti@acadiaenvironmental.com

Primary Invoice Address:
Accounts Payable
Acadia Environmental Technology
48 Free Street

Portland,ME 04101

Report CC Addresses:
Invoice CC Addresses:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SE6358-1	WP-IN	29-SEP-11 09:45	30-SEP-11		10-OCT-11		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Unit Price
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		$ 15.00
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		$ 90.00
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		$ 10.00

SE6358-2	WP-OUT	29-SEP-11 09:20	30-SEP-11		10-OCT-11		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Unit Price
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		$ 15.00
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		$ 90.00
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		$ 10.00

SE6358-3	LDD	29-SEP-11 09:30	30-SEP-11		10-OCT-11		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Unit Price
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		$ 15.00
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		$ 90.00
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		$ 10.00

SE6358-4	B10	29-SEP-11 09:15	30-SEP-11		10-OCT-11		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Unit Price
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		$ 15.00
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		$ 90.00
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		$ 10.00

Total Samples: 4 ***Total Analyses: 12*** ***Total Price : $ 460.00***

Run Reports: Logindetail

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Sep. 30, 2011
04:06 PM

Quote/Incoming: ACDGEN

Login Number: SE6358

Account: ACADIA001 Web
Acadia Environmental Technology, Inc.

Project:

Primary Report Address:
Mark Arienti
Acadia Environmental Technology
48 Free Street

Portland,ME 04101
marienti@acadiaenvironmental.com

Primary Invoice Address:
Accounts Payable
Acadia Environmental Technology
48 Free Street

Portland,ME 04101

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Limited Volume for TPH on -3 and -4 (1 liter each).
CHECK NO.	:	
CLIENT PO#	:	
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	5.8
DELIVERY SERVICES	:	
EDD FORMAT	:	KAS064-XLS
LOGIN INITIALS	:	DM
PM	:	KAP
PROJECT NAME	:	059-009
QC LEVEL	:	II+
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Merge results. Email unprotected pdf & EDD, no hc.
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE6358-1	WP-IN	29-SEP-11 09:45	30-SEP-11			10-OCT-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		

SE6358-2	WP-OUT	29-SEP-11 09:20	30-SEP-11			10-OCT-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		

SE6358-3	LDD	29-SEP-11 09:30	30-SEP-11			10-OCT-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		

SE6358-4	B10	29-SEP-11 09:15	30-SEP-11			10-OCT-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	06-OCT-11	250mL Plastic		
Aqueous	S	SW8015M-TPH	06-OCT-11	1L N-Amber Glass		
Aqueous	S	SW9040B-PH	30-SEP-11	250mL Plastic		

Total Samples: 4 *Total Analyses:* 12

9/30/2011

Quarterly Site Compliance Evaluation/Inspection

Name of Qualified Inspector(s) Completing Evaluation/Inspection: MARK ARIENTI **Date:** 9/30/11

_____ **Date:** _____

Are industrial materials, residue, or trash on the ground? **Yes** ☒ **No** ☐

If yes, state corrective action Scrap metal on concrete processing area where stormwater flows to treatment system as per design so no

Date corrective action was completed corrective action required.

Are there any leaks or spills from industrial equipment, drums, barrels, tanks or containers onsite? **Yes** ☐ **No** ☒

If yes, state corrective action _____

Date corrective action was completed _____

Is there offsite tracking of industrial materials or sediment where vehicles enter or exit the site? **Yes** ☐ **No** ☒

If yes, state corrective action _____

Date corrective action was completed _____

Is there blowing or whirling of raw, final, or waste materials? **Yes** ☐ **No** ☒

If yes, state corrective action _____

Date corrective action was completed _____

ATTACHMENT B
VISUAL MONITORING FORM

Have the locations of any of the potential pollutants or material storage changed? **Yes** ☐ **No** ☒

If yes, state corrective action or additional BMPs required_____

_____

If yes, document in the SWPPP & on site map_____

Are there any non-stormwater discharges? **Yes** ☐ **No** ☒

If yes, what are they?

_____

Are the non-stormwater discharges authorized under the MSGP? NA **Yes** ☐ **No** ☐

If no, have all the outfalls been inspected for unauthorized non-stormwater discharges? **Yes** ☒ **No** ☐

State corrective actions for all unauthorized non-stormwater discharges._____

_____

Are any modifications required to be made to the SWPPP or Site Map(s) ☐ No modification required
☐ SWPPP requires modification
☐ Map(s) require modification

All required changes have been made to the Plan Date:_____ Initials:_____
All required changes have been made to the Site Map(s) Date:_____ Initials:_____

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly violating the law.

Authorized Signature:_____ **Date**: 10/10/11

Are all stormwater BMPs identified in the SWPP operating correctly? Yes ☐ No ☒

If no, state corrective action Wet pond is not draining as quickly as required but replacement of underdrain material, as approved by MEDEP, will be performed

Date corrective action was completed in late October or November

Are additional BMPs required for potential pollutants or an industrial activity Yes ☐ No ☒
If yes document & update SWPPP

If yes, state corrective action

Date corrective action was completed

Are there signs of erosion in stormwater conveyances or at outfalls? Yes ☐ No ☒

If yes, state corrective action

Date corrective action was completed

Evidence of industrial material, residue, trash or sediment in stormwater conveyance? Yes ☒ No ☐

If yes, state corrective action There is some sediment in concrete collection channel and in catch basin to north of entrance but not

Date corrective action was completed enough to warrant cleaning at this time.

Has industrial activity been added or the site expanded? Yes ☐ No ☒
If yes, document in SWPPP & on site map

If yes, state corrective action or additional BMPs required

Date corrective action or BMPs implemented

Methodology

Stormwater Sampling Procedures

Stormwater samples were collected according to the procedures outlined in the EMP in PNE's Operations Manual. These procedures, which follow those in Maine's MSGP, involved collection of a sample within the first 60 minutes (or as soon thereafter as possible but not more than 2.25 hrs) after initial discharge from the outfall for a storm producing measurable runoff.

To avoid cross-contamination, samples were collected directly into the laboratory/visual examination container.

The samples were collected during a rainfall event on May 23, 2011. The total precipitation that fell during this storm, based on weather data from the Portland Jetport, was 0.28 inches of rain. The previous rainfall event (to the event sampled) with greater than 0.26 inches occurred on May 20.

Sample Analysis

Samples for laboratory analysis were transported on ice to Katahdin Analytical Laboratory in Scarborough, Maine. A laboratory report is incorporated into this report as Attachment A.

Visual Monitoring

Stormwater samples collected at each location were also visually evaluated as per the EMP in accordance with the Maine MSGP. A copy of the completed visual monitoring form is provided in Attachment B.

Results

Laboratory analysis of the sample collected at the wet pond outlet (SW-1) indicated that it contained 2.2 mg/l of total petroleum hydrocarbons (TPH). The TPH concentration at the inlet to the wet pond (outlet of the oil-water separators) was 3.3 mg/l. This concentration is well below the 100 mg/l benchmark for TPH listed in the MSGP. Low levels (<1.0 mg/l) of TPH were measured in the samples from the bioretention cell (Outfall 3) and the culvert from the loading docks (Outfall 2).

ACADIA
ENVIRONMENTAL TECHNOLOGY

June 16, 2011

Mr. Richard Carmosino
Schnitzer Northeast
69 Rover Street
Everett, MA 02149

RE: Stormwater Monitoring
Prolerized New England, Portland, Maine

Dear Rich:

This letter report documents stormwater monitoring performed during May 2011 at Prolcrized New England (PNE) in Portland, Maine.

Background/Overview

The Environmental Monitoring Plan (EMP) for the facility specifies triannual surface water monitoring as required by the solid waste processing license issued by the Maine Department of Environmental Protection (MEDEP) and quarterly monitoring as required under Maine's Multisector General Permit for Stormwater Discharge Associated with Industrial Activity (MSGP).

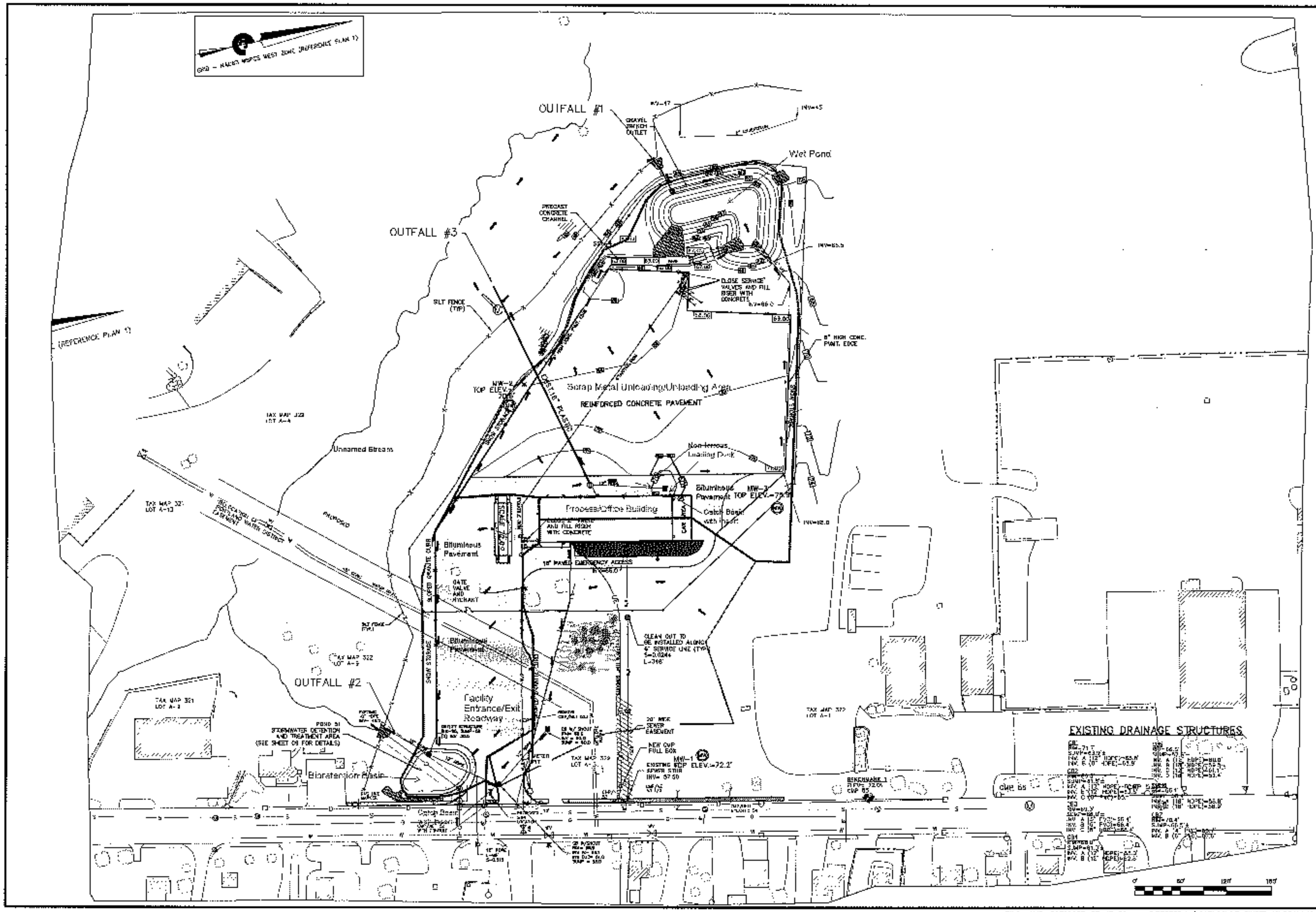
Monitoring under the solid waste license requires collection of a sample from the wet pond outlet (Outfall 1) and the wet pond inlet and analysis for petroleum hydrocarbons.

The MSGP requires facilities covered by Sector N, Scrap Recycling, to perform visual and benchmark monitoring of outfalls with stormwater associated with industrial activity. This includes Outfalls 1-3 at the PNE facility. Visual evaluation of samples collected at these locations is required for the following: color, odor, clarity, floating solids, settled solids, suspended solids, foam, and oil sheen. Benchmark monitoring of the outfalls is required for total suspended solids (TSS), total petroleum hydrocarbons (TPH) and pH.

Scope of Work

The following scope of work was performed:

- Collect stormwater samples
- Analyze/Evaluate stormwater samples,
- Prepare a report.



NO.	REVISIONS	INT.	DATE
7.	AS-BUILT DRAINAGE PLAN	CVB	02/23/12
6.	DELETED DITCH CONTOUR 64	CVB	07/29/11
5.	MOVED SCALE & ADDED PAVEMENT	CVB	7-01-11
4.	REVISIONS TO CITY STAFF COMMENTS	CVB	5-13-10
3.	RAISE BLDG. FLOOR & SITE ELEV. 1'	CVB	5-10-10
2.	LOWER BLDG. FLOOR & SOIL ELEV.	CVB	4-15-10
1.	ADD DITCH, LEVEL SPREADER ON CITY	CVB	04/09/10

Parameter	Wet Pond Inlet	Wet Pond Outlet (#1)	Bioretention Cell (#2)	Loading Dock Drain (#3)	Benchmark
TPH (mg/l)	3.3	2.2	0.91	0.37	100
TSS (mg/l0	-	24	14	6	100
pH (S.U.)	-	6.7	7	7.2	6.0 - 9.0

Observations during this rain event and at other times during dry weather indicate that the level of water in the wet pond remains higher than one would expect. This results in discharge through the overflow drain rather than through the gravel outlet trench (underdrain) even during less intense rainfall events. In order to correct this problem and ensure full treatment of stormwater, the top layers of gravel in the outlet trench will be removed and replaced with new gravel. This is a regular maintenance item specified in the maintenance plan for the site.

Visual evaluation of stormwater at all of the outfalls indicated that it was clear as confirmed by the low suspended solids results for all samples.

Conclusions

Stormwater monitoring was performed in May 2011 as required by PNE's solid waste license and the MSGP.

Because of the continued high water level observed in the wet pond even during relatively dry weather, the top layer of gravel in the gravel outlet trench will be replaced as called for in the facility maintenance plan.

Sincerely,

Mark Arienti, P.E.
Senior Environmental Engineer

Katahdin ANALYTICAL SERVICES

nelac Cert. No. E87604

June 8, 2011

Mr. Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

RE: Katahdin Lab Number: SE2892
Project ID: Schnitzer
Project Manager: Ms. Kelly Perkins
Sample Receipt Date(s): May 24, 2011

Dear Mr. Arienti:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to http://www.katahdinlab.com/cert.html for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES

Deborah J Nadeau
Authorized Signature

06/08/2011
Date

ATTACHMENT A
LABORATORY REPORT

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

TECHNICAL NARRATIVE

Organics Analysis

The samples of Work Order SE2892 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

8015-TPH Analysis

Sample SE2892-2DL had a low recovery for the extraction surrogate o-terphenyl that was outside laboratory established acceptance limits. Based on the sample chromatogram, the low recovery is likely due to a matrix effect. Therefore, the sample was not reextracted.

There were no other protocol deviations or observations noted by the organics laboratory staff.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Schnitzer
PO No:
Sample Date: 05/23/11
Received Date: 05/24/11
Extraction Date: 05/27/11
Analysis Date: 02-JUN-2011 18:01
Report Date: 06/07/2011
Matrix: WATER
% Solids: NA

Lab ID: SE2892-1
Client ID: LDD
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		370	1.0	75	73
O-Terphenyl		76%			

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS
(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

MCL Maximum Contaminant Level

NL No limit

NFL No Free Liquid Present

FLP Free Liquid Present

NOD No Odor Detected

TON Threshold Odor Number

H1 Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Schnitzer
PO No:
Sample Date: 05/23/11
Received Date: 05/24/11
Extraction Date: 05/27/11
Analysis Date: 02-JUN-2011 18:39
Report Date: 06/07/2011
Matrix: WATER
% Solids: NA

Lab ID: SE2892-2DL
Client ID: WP-IN
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		3300	3.0	75	220
O-Terphenyl		* 29%			

Report of Analytical Results

Client: Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

Lab Sample ID: SE2892-1
Report Date: 04-JUN-11
Client PO: 059-009
Project: Schnitzer
SDG: SE2892

Sample Description	Matrix	Date Sampled	Date Received
LDD	AQ	23-MAY-11	24-MAY-11

Parameter	Result	Adj PQL	Anal. Method	QC Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Solids-Nonfilterable Residue	6.0 mg/L	4.0	SM 2540D	WG92031	26-MAY-11 09:40:00	SM 2540D	25-MAY-11	ARE	
pH(Laboratory)	7.2 pH	0.10	SM 4500H-B	WG92005	24-MAY-11 16:44:00	N/A	N/A	CP	HI

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Schnitzer
PO No:
Sample Date: 05/23/11
Received Date: 05/24/11
Extraction Date: 05/27/11
Analysis Date: 02-JUN-2011 19:16
Report Date: 06/07/2011
Matrix: WATER
% Solids: NA

Lab ID: SE2892-3DL
Client ID: WP-OUT
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		2200	2.0	75	140
O-Terphenyl		57%			

Report of Analytical Results

Client: Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

Lab Sample ID: SE2892-3
Report Date: 04-JUN-11
Client PO: 059-009
Project: Schnitzer
SDG: SE2892

Sample Description	Matrix	Date Sampled	Date Received
WP-OUT	AQ	23-MAY-11	24-MAY-11

Parameter	Result	Adj PQL	Anal. Method	QC Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Solids-Nonfilterable Residue	24. mg/L	10.	SM 2540D	WG92031	26-MAY-11 09:42:00	SM 2540D	25-MAY-11	ARE	
pH(Laboratory)	6.7 pH	0.10	SM 4500H-B	WG92005	24-MAY-11 16:37:00	N/A	N/A	CP	HT

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Mark Arienti
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

Lab Sample ID: SE2892-4
Report Date: 04-JUN-11
Client PO: 059-009
Project: Schnitzer
SDG: SE2892

Sample Description	Matrix	Date Sampled	Date Received
BIORETEN	AQ	23-MAY-11	24-MAY-11

Parameter	Result	Adj PQL	Anal. Method	QC Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Solids-Nonfilterable Residue	14. mg/L	4.0	SM 2540D	WG92031	26-MAY-11 09:44:00	SM 2540D	25-MAY-11	ARE	
pH(Laboratory)	7.0 pH	0.10	SM 4500H-B	WG92005	24-MAY-11 16:40:00	N/A	N/A	CP	HI

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: Schnitzer
PO No:
Sample Date: 05/23/11
Received Date: 05/24/11
Extraction Date: 05/27/11
Analysis Date: 28-MAY-2011 17:54
Report Date: 06/07/2011
Matrix: WATER
% Solids: NA

Lab ID: SE2892-4
Client ID: BIORETEN
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		910	1.0	75	71
O-Terphenyl		82%			

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: Schnitzer
PO No:
Sample Date:
Received Date:
Extraction Date: 05/27/11
Analysis Date: 27-MAY-2011 19:29
Report Date: 06/07/2011
Matrix: WATER
% Solids: NA

Lab ID: WG92079-1
Client ID: WG92079-Blank
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36	U	75	1.0	75	75
O-Terphenyl		84%			

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG92079-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: SCHNITZER SDG No.: SE2892

Lab File ID: AEE4082 Lab Sample ID: WG92079-1

Instrument ID: GC10 Date Extracted: 05/27/11

Matrix: (soil/water) WATER Date Analyzed: 05/27/11

Level: (low/med) LOW Time Analyzed: 1929

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG92079-LCS	WG92079-2	AEE4083	05/27/11	2006
02	WG92079-LCSD	WG92079-3	AEE4084	05/27/11	2044
03	BIORETEN	SE2892-4	AEE4118	05/28/11	1754
04	LDD	SE2892-1	AEF2013	06/02/11	1801
05	WP-IN	SE2892-2DL	AEF2014	06/02/11	1839
06	WP-OUT	SE2892-3DL	AEF2015	06/02/11	1916
07					
08					
09					
10					
11					
12					
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30					

COMMENTS:

FORM IVDRO

Quality Control Report

Blank Sample Summary Report

Solids-Nonfilterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG92031	SM 2540 D	26-MAY-11	25-MAY-11	U 3 mg/L	4 mg/L

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: Schnitzer
PO No:
Sample Date:
Received Date:
Extraction Date: 05/27/11
Analysis Date: 05/27/11
Report Date: 06/07/2011
Matrix: WATER

Lab ID: WG92079-2 & WG92079-3
Client ID: WG92079-LCS & WG92079-LCSD
SDG: SE2892
Extracted by: KF
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG92079
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	500	500	NA	379	400	76	80	5	20	45-118

FORM III DRO-1

AEE4083.d & AEE4084.d

Quality Control Report

Duplicate Sample Summary Report

Solids-Nonfilterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG92031-3	SE2892-1	WG92031	26-MAY-11	mg/L	6.0	4.8	22*	20
WG92031-4	SE2892-3	WG92031	26-MAY-11	mg/L	24.	25.	4	20

pH(Laboratory)

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG92005-2	SE2892-3	WG92005	24-MAY-11	pH	6.7	6.7	0	20

Quality Control Report

Laboratory Control Sample Summary Report

Solids-Nonfilterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG92031-2	LCS	WG92031	26-MAY-11	25-MAY-11	mg/L	831	890	107	60-140	

pH(Laboratory)

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG92005-1	LCS	WG92005	24-MAY-11	N/A	pH	7	7.0	100	99-101	

Katahdin ANALYTICAL SERVICES

600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: ACADIA ENVIRONMENTAL	Contact: M. ARIENTI	Phone #: (207) 780-1230	Fax #: ( )
Address: 48 FREE ST.	City: PORTLAND	State: ME	Zip Code: 04107
Purchase Order #: 059-009	Proj. Name / No.: SCHNITZER		Katahdin Quote #:
Bill (if different than above):	Address:		
Sampler (Print / Sign): MARK ARIENTI		Copies To:	

LAB USE ONLY — WORK ORDER #: KATAHDIN PROJECT NUMBER: SE2892

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE / PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	TSS (total suspended solids) Filt. ☐Y ☐N	TPH (total petroleum hydro) Filt. ☐Y ☐N	PH Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	LDD	5/23/11 / 9:20	W	3	X	X	X							
	WP-IN	5/23/11 / 8:50	W	2		X								
	WP-OUT	5/23/11 / 9:10	W	3	X	X	X							
	BIORETEN	5/23/11 / 9:30	W	3	X	X	X							
		/												
		/												
		/												
		/												
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		/												
		/												
		/												
		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	5/24 2:30	[signature]			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

ORIGINAL

Katahdin Analytical Services, Inc. Sample Receipt Condition Report

Client: Acadia	KAS PM: KAP	Sampled By: client
Project:	KIMS Entry By: GN	Delivered By: KAS
KAS Work Order#: SE2892	KIMS Review By: KAP	Received By: DP
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 5/24/11 1535

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 7.9
Samples received at <6 °C w/o freezing?		✓			Note: Not required for metals analysis.
Ice packs or ice present?		✓			The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: Aqueous: No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

ATTACHMENT B
VISUAL MONITORING FORM

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lnof)

May. 25, 2011
09:39 AM

Login Number: SE2892

Account:ACADIA001 Web
Acadia Environmental Technology, Inc.

Project:

Primary Report Address:
Mark Arienti
Acadia Environmental Technology
48 Free Street

Portland,ME 04101
marienti@acadiaenvironmental.com

Primary Invoice Address:
Accounts Payable
Acadia Environmental Technology
48 Free Street

Portland,ME 04101

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: ACDGEN

Login Information:

ANALYSIS INSTRUCTIONS	:	
CHECK NO.	:	
CLIENT PO#	:	059-009
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	7.9
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	KAS064-XLS
LOGIN INITIALS	:	GN
PM	:	KAP
PROJECT NAME	:	Schnitzer
QC LEVEL	:	II+
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Merge results, Email unprotected pdf & EDD, no hc.
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2892-1	LDD	23-MAY-11 09:20	24-MAY-11			06-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	COURIER-BILLING				
Aqueous	S	SM2540D-TSS	30-MAY-11	250mL Plastic		
Aqueous	S	SM4500HB-PH	24-MAY-11	125mL Plastic		
Aqueous	S	SW8015M-TPH	30-MAY-11	1L N-Amber Glass		

SE2892-2	WP-IN	23-MAY-11 08:50	24-MAY-11		06-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8015M-TPH	30-MAY-11	1L N-Amber Glass		

SE2892-3	WP-OUT	23-MAY-11 09:10	24-MAY-11		06-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	30-MAY-11	250mL Plastic		
Aqueous	S	SM4500HB-PH	24-MAY-11	125mL Plastic		
Aqueous	S	SW8015M-TPH	30-MAY-11	1L N-Amber Glass		

SE2892-4	BIORETEN	23-MAY-11 09:30	24-MAY-11		06-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2540D-TSS	30-MAY-11	250mL Plastic		
Aqueous	S	SM4500HB-PH	24-MAY-11	125mL Plastic		
Aqueous	S	SW8015M-TPH	30-MAY-11	1L N-Amber Glass		

Total Samples: 4 *Total Analyses: 11*

CIVIL CONSULTANTS MEMORANDUM

TO: Rich Carmosino

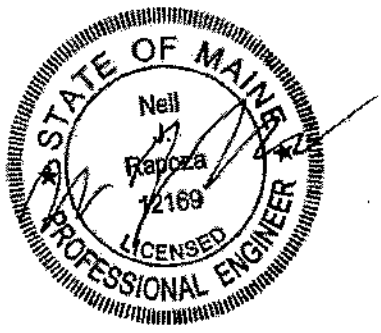
FROM: Neil J. Rapoza, PE

SUBJECT: Filter bench modification

DATE: 24 AUGUST 2011

REVISED 25 AUGUST 2011

PROJECT: 06-769.00 PROLERIZED NEW ENGLAND – RIVERSIDE STREET, PORTLAND, ME



This memo has been prepared to address a proposed modification to the filter bench at the existing wet pond at the project facility. The material surrounding the 6" underdrain is to be removed and replaced with the more porous underdrain backfill material (MEDOT 703.22 Type C) to prevent premature clogging above the drain. Currently, the filter is blocked easily and stormwater exits though the overflow structure. The installation of the new material will maintain a functioning underdrain outlet over time.

The wet pond filter bench outlet had been modeled in the originally approved stormwater management study as a filter material with an infiltration rate of 14 in/hour, which outlets to the 6" underdrain. Due to the porosity of the proposed crushed stone underdrain bedding, the outlet could not be modeled using the flow through the material as a flow control device. In order to ensure that flow leaves the wet pond as intended, a cap with two 1" diameter holes will be installed at the end of the underdrain pipe. The cap has been designed to mimic the effect of the existing filter material with respect to peak flow reduction.

In 2010, the City of Portland and PNE decided to construct a swale that would direct off-site flow generated by City property away from the pond. A portion of the paved area in front of the building was also converted to an earth berm. All existing BMPs providing treatment for flow generated on-site remain as originally designed. The proposed outlet modification has also been evaluated with this reduced flow to ensure that it mimics the original design in all site conditions. The results of the evaluation of this reduced flow condition are summarized in Table 2.

The following table indicates the expected flows and pond elevations for the originally designed outlet and the proposed system:

TABLE 1	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
	Flow (cfs)	Elevation	Flow (cfs)	Elevation	Flow (cfs)	Elevation	Flow (cfs)	Elevation
Approved design	4.16	63.65	7.89	64.44	8.99	64.79	14.96	65.11
Proposed modification	4.22	63.66	7.86	64.46	8.93	64.82	15.07	65.12
Change:	0.06	0.01	-0.03	0.02	-0.06	0.03	0.11	0.01

The following table indicates the expected flows and pond elevations for the as-built condition flowing through the originally designed outlet and the proposed system:

TABLE 2	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
As-built condition	Flow (cfs)	Elevation	Flow (cfs)	Elevation	Flow (cfs)	Elevation	Flow (cfs)	Elevation
Swale/Berm modification	0.17	63.20	2.57	63.53	4.69	63.68	6.21	63.98
Proposed modification	0.10	63.25	2.41	63.53	4.59	63.68	6.15	63.99
Change:	0.07	0.05	-0.16	N/C	-0.10	N/C	-0.06	0.01

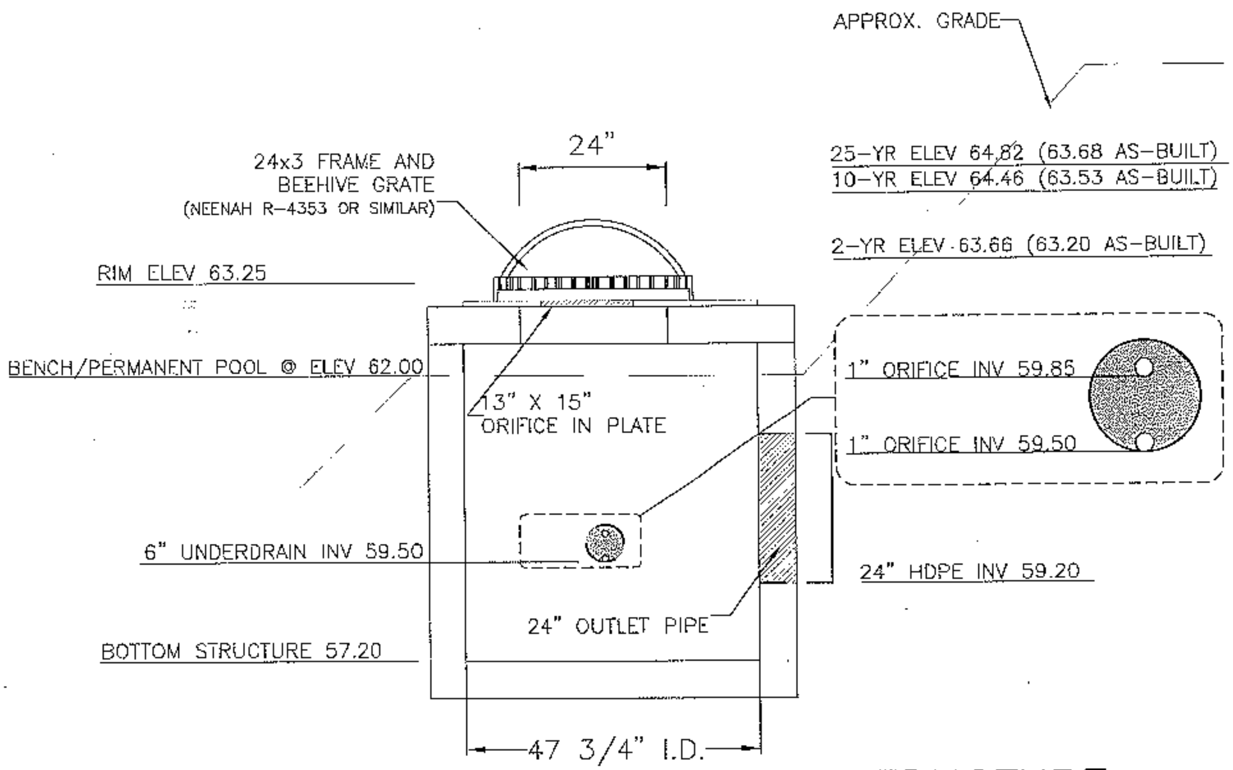
As shown in the table, results of the analysis indicated that the installation of the proposed flow control cap will have an insignificant effect on the flows from the pond or the elevation of the pond itself.

Please refer to the attached detail and calculations for verification of the values listed above.

Attachments:

- Approved Design HydroCAD report, file: SCHNITZER POST
- Modification to Approved Design HydroCAD report, file: SCHNITZER_POST_20110824_NJR-Trench
- As-built Condition HydroCAD report, file: SCHNITZER_Post_AS-BUILT_20110516
- Modification to As-built HydroCAD report, file: SCHNITZER_POST_2011_20110824_NJR-Trench

J:\aaa\2006\0676900\STORMWATER\20110825_rev1_wet_pond_memo.doc



POND 23 OUTLET – CONTROL STRUCTURE

NOT TO SCALE

STATE OF MAINE
Neil J. Rapoza
12169
LICENSED
PROFESSIONAL ENGINEER

REVISIONS:
1 ADDED AS-BUILT POND ELEVATIONS NJR 8/25/11

CIVIL CONSULTANTS Engineers Planners Surveyors P.O. Box 100 South Berwick Maine 03908 207-384-2550 ctvcon@ctvcon.com	2011 FILTER BENCH MODIFICATION PNE SCRAP METAL FACILITY RIVERSIDE STREET PORTLAND, MAINE PREPARED FOR: PROLERIZED NEW ENGLAND CO, LLC MAILING ADDRESS: 69 ROVER STREET, EVERETT, MA 02149	DRAWN NJR / CALC. NJR DATE 24 AUGUST 2011 APPROVED SCALE AS NOTED	SHEET NUMBER: SK1 SHEET 1 of 1 PROJECT # 06-769.00

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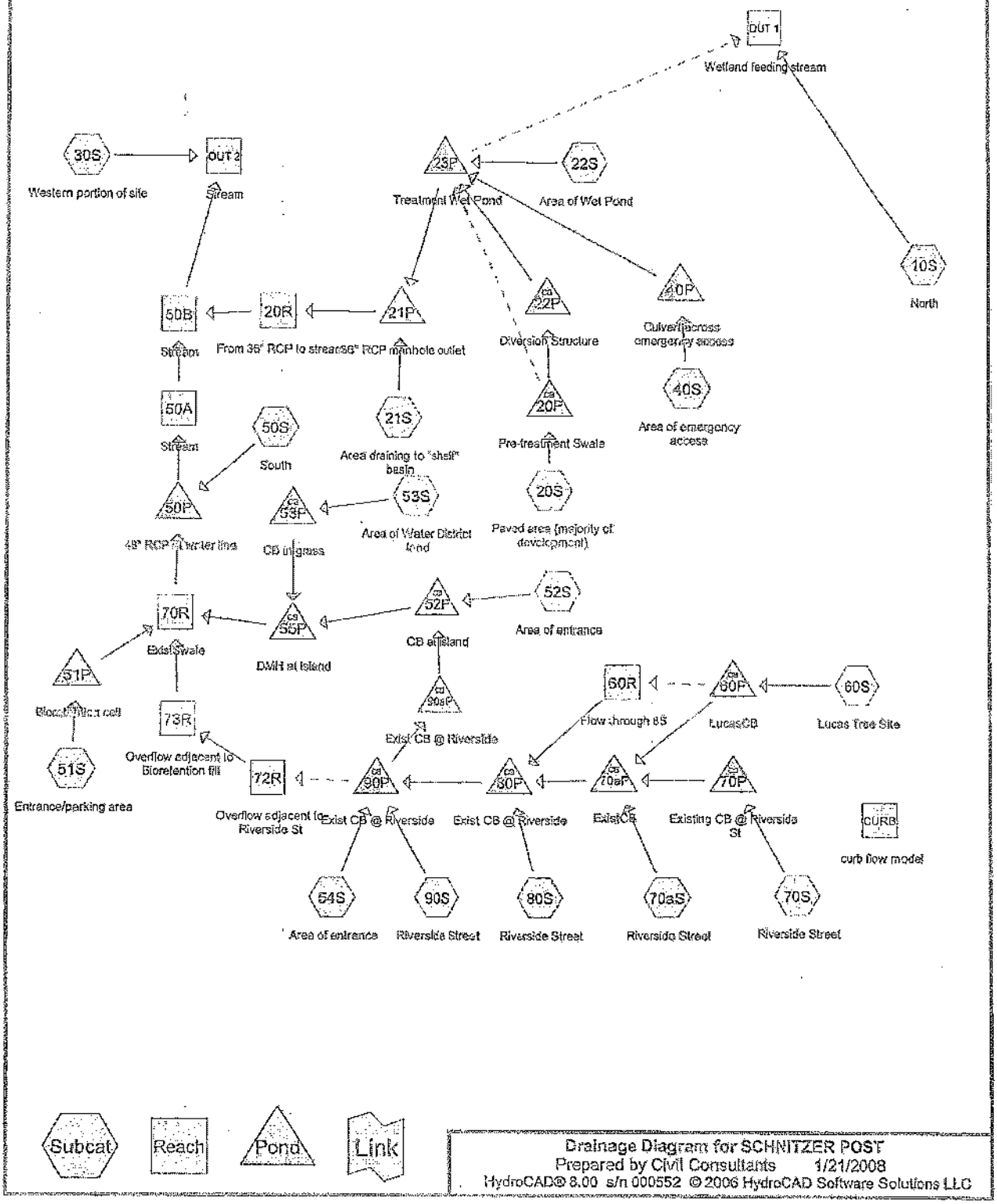
OUT 1
Wetland feeding stream
30S
Western portion of site
OUT 2
Stream
23P
Treatment Wet Pond
22S
Area of Wet Pond
10S
North
50B
Stream
20R
21P
From 36" RCP to stream36" RCP manhole outlet
22P
Diversion Structure
40P
Culvert across emergency access
40S
Area of emergency access
50A
Stream
50S
South
21S
Area draining to "shelf" basin
20P
Pre-treatment Swale
20S
Paved area (majority of development)
50P
48" RCP to water line
53P
CB in grass
53S
Area of Water District land
52P
52S
Area of entrance
70R
Exist Swale
55P
DMH at Island
CB at Island
51P
Bioretention cell
73R
Overflow adjacent to Bioretention fill
51S
Entrance/parking area
90aP
Exist CB @ Riverside
50R
Flow through BS
60P
LucasCB
60S
Lucas Tree Site
72R
Overflow adjacent to Riverside St
90P
Exist CB @ Riverside
80P
Exist CB @ Riverside
70aP
ExistCB
70P
Existing CB @ Riverside St
CURB
curb flow model
54S
Area of entrance
90S
Riverside Street
80S
Riverside Street
70aS
Riverside Street
70S
Riverside Street
Subcat
Reach
Pond
Link
Drainage Diagram for SCHNITZER POST
Prepared by Civil Consultants 1/21/2008
HydroCAD® 8.00 s/n 000552 © 2006 HydroCAD Software Solutions LLC

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: 059-009
PO No:
Sample Date:
Received Date:
Extraction Date: 10/04/11
Analysis Date: 10/07/11
Report Date: 10/18/2011
Matrix: WATER

Lab ID: WG98556-2 & WG98556-3
Client ID: WG98556-LCS & WG98556-LCSD
SDG: SE6358
Extracted by: KD
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG98556
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	500	500	NA	371	347	74	69	7	20	45-118

FORM III DRO-1

AEJ2009.d & AEJ2010.d

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG98556-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: 059-009 SDG No.: SE6358

Lab File ID: AEJ2008 Lab Sample ID: WG98556-1

Instrument ID: GC10 Date Extracted: 10/04/11

Matrix: (soil/water) WATER Date Analyzed: 10/07/11

Level:(low/med) LOW Time Analyzed: 1628

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG98556-LCS	WG98556-2	AEJ2009	10/07/11	1706
02	WG98556-LCSD	WG98556-3	AEJ2010	10/07/11	1744
03	WP-IN	SE6358-1	AEJ2024	10/08/11	1013
04	WP-OUT	SE6358-2	AEJ2025	10/08/11	1051
05	LDD	SE6358-3	AEJ2044	10/14/11	1933
06	B10	SE6358-4	AEJ2045	10/14/11	2010
07					
08					
09					
10					
11					
12					
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24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVDRO

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-009
PO No:
Sample Date: 09/29/11
Received Date: 09/30/11
Extraction Date: 10/04/11
Analysis Date: 14-OCT-2011 20:10
Report Date: 10/18/2011
Matrix: WATER
% Solids: NA

Lab ID: SE6358-4
Client ID: B10
SDG: SE6358
Extracted by: KD
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG98556
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		220	1.0	75	73
O-Terphenyl		56%			

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-009
PO No:
Sample Date: 09/29/11
Received Date: 09/30/11
Extraction Date: 10/04/11
Analysis Date: 14-OCT-2011 19:33
Report Date: 10/18/2011
Matrix: WATER
% Solids: NA

Lab ID: SE6358-3
Client ID: LDD
SDG: SE6358
Extracted by: KD
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG98556
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		420	1.0	75	72
O-Terphenyl		64%			

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-009
PO No:
Sample Date: 09/29/11
Received Date: 09/30/11
Extraction Date: 10/04/11
Analysis Date: 08-OCT-2011 10:51
Report Date: 10/18/2011
Matrix: WATER
% Solids: NA

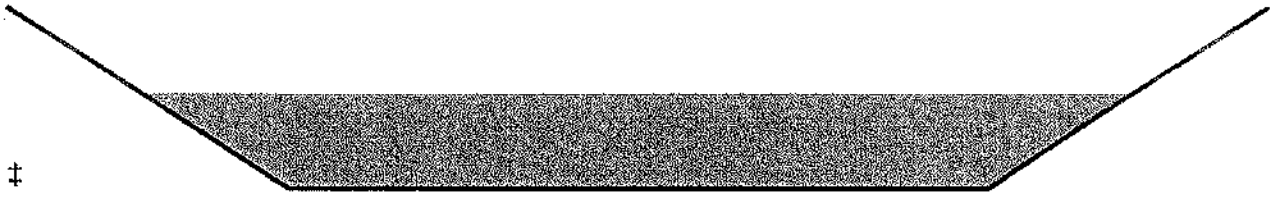
Lab ID: SE6358-2
Client ID: WP-OUT
SDG: SE6358
Extracted by: KD
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG98556
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36		1600	1.0	75	73
O-Terphenyl		66%			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 3.75 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 8.1 min

Peak Storage= 4,680 cf @ 12.16 hrs, Average Depth at Peak Storage= 1.06'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 149.66 cfs

10.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 18.00'
Length= 366.0' Slope= 0.0123 '/'
Inlet Invert= 30.50', Outlet Invert= 26.00'



‡

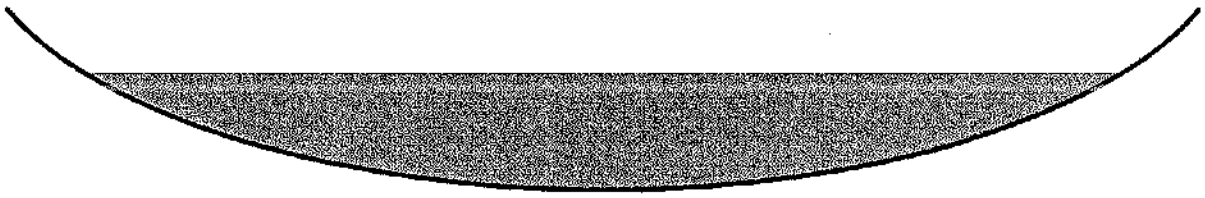
Reach 60R: Flow through 8S

Inflow	=	8.62 cfs @	12.13 hrs, Volume=	0.273 af
Outflow	=	8.47 cfs @	12.15 hrs, Volume=	0.273 af, Atten= 2%, Lag= 1.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 1.96 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 0.48 fps, Avg. Travel Time= 6.4 min

Peak Storage= 800 cf @ 12.15 hrs, Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 0.50', Capacity at Bank-Full= 21.87 cfs

25.00' x 0.50' deep Parabolic Channel, n= 0.030 Short grass
Length= 185.0' Slope= 0.0122 '/'
Inlet Invert= 70.25', Outlet Invert= 68.00'



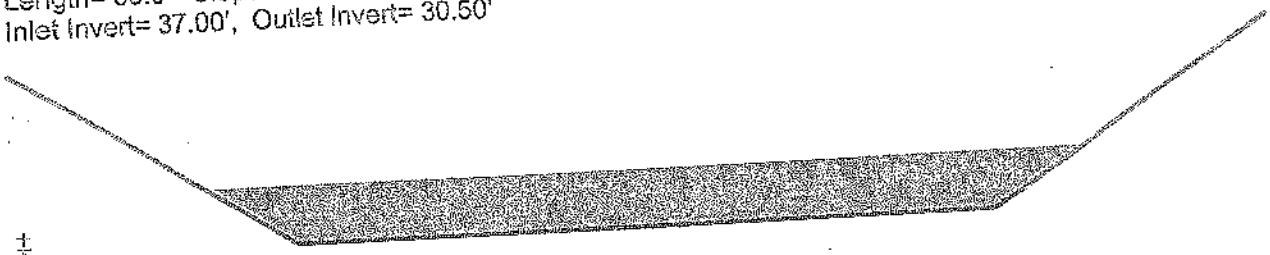
‡

Reach 70R: ExistSwale

Inflow Area =		5.655 ac,	Inflow Depth > 4.27"	for 25YR event
Inflow	=	22.54 cfs @	12.12 hrs, Volume=	2.011 af
Outflow	=	22.45 cfs @	12.13 hrs, Volume=	2.011 af, Atten= 0%, Lag= 0.7 min

Peak Storage= 159 cf @ 12.05 hrs, Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 77.92 cfs

5.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 9.00'
Length= 86.0' Slope= 0.0756 '/'
Inlet Invert= 37.00', Outlet Invert= 30.50'



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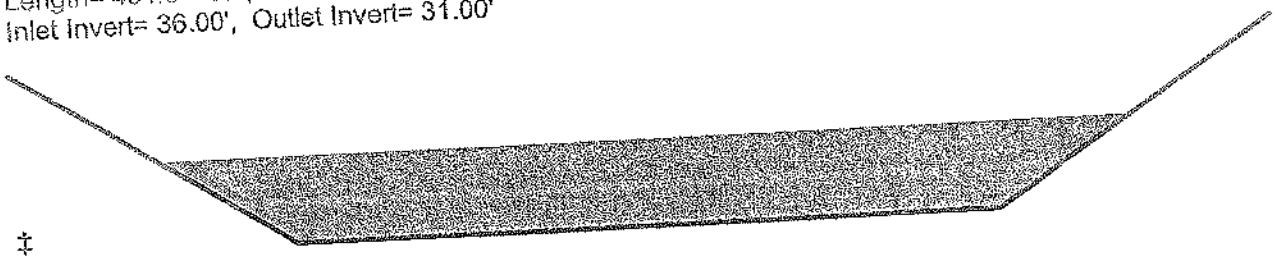
Reach 50A: Stream

Inflow Area = 9.877 ac, Inflow Depth > 4.08" for 25YR event
Inflow = 39.45 cfs @ 12.12 hrs, Volume= 3.360 af
Outflow = 38.25 cfs @ 12.14 hrs, Volume= 3.360 af, Atten= 3%, Lag= 1.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 3.28 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 0.55 fps, Avg. Travel Time= 14.8 min

Peak Storage= 5,637 cf @ 12.14 hrs, Average Depth at Peak Storage= 0.97'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 137.18 cfs

10.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 18.00'
Length= 484.0' Slope= 0.0103 '/'
Inlet Invert= 36.00', Outlet Invert= 31.00'



‡

Reach 50B: Stream

[61] Hint: Submerged 16% of Reach 20R bottom
[61] Hint: Submerged 11% of Reach 50A bottom

Inflow Area = 16.922 ac, Inflow Depth > 4.16" for 25YR event
Inflow = 48.38 cfs @ 12.14 hrs, Volume= 5.864 af
Outflow = 47.95 cfs @ 12.16 hrs, Volume= 5.861 af, Atten= 1%, Lag= 1.1 min

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	30	0.0130	0.11		**Sheet Flow, 80.1** Grass: Short n= 0.150 P2= 3.00"
0.7	40	0.0180	0.94		**Shallow Concentrated Flow, 80.2** Short Grass Pasture Kv= 7.0 fps
1.4	55	0.0180	0.67		**Shallow Concentrated Flow, 80.3** Woodland Kv= 5.0 fps
0.8	47	0.0200	0.99		**Shallow Concentrated Flow, 80.4** Short Grass Pasture Kv= 7.0 fps
7.5	172	Total			

Subcatchment 90S: Riverside Street

Runoff = 1.63 cfs @ 12.11 hrs, Volume= 0.126 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.158	79	50-75% Grass cover, Fair, HSG C
0.051	98	Paved parking & roofs
0.032	79	Woods, Fair, HSG D
0.176	84	50-75% Grass cover, Fair, HSG D
0.417	83	Weighted Average
0.366		Pervious Area
0.051		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	40	0.0130	0.12		**Sheet Flow, 90.1** Grass: Short n= 0.150 P2= 3.00"
1.7	83	0.0130	0.80		**Shallow Concentrated Flow, 90.2** Short Grass Pasture Kv= 7.0 fps
0.7	188	0.0100	4.71	32.94	**Trap/Vee/Rect Channel Flow, 90.3** Bot.W=2.00' D=0.50' Z= 48.0 & 0.0 '/' Top.W=26.00' n= 0.013 Asphalt, smooth
8.2	311	Total			

Reach 20R: From 36" RCP to stream

Inflow Area = 7.045 ac, Inflow Depth > 4.27" for 25YR event
Inflow = 10.90 cfs @ 12.05 hrs, Volume= 2.504 af
Outflow = 10.90 cfs @ 12.05 hrs, Volume= 2.504 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 5.91 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.58 fps, Avg. Travel Time= 0.9 min

Subcatchment 70S: Riverside Street

Runoff = 3.28 cfs @ 12.12 hrs, Volume= 0.269 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.293	98	Lucas Pavement
0.081	98	Lucas Buildings
0.184	79	Lucas Grass Area
0.147	91	Lucas Gravel Lot, HSG D
0.705	92	Weighted Average
0.331		Pervious Area
0.374		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	50	0.0100	0.11		Sheet Flow, 70.1 Grass: Short n= 0.150 P2= 3.00"
0.8	237	0.0100	4.71	32.94	Trap/Vee/Rect Channel Flow, 70.2 Bot.W=2.00' D=0.50' Z= 48.0 & 0.0 '/' Top.W=26.00' n= 0.013 Asphalt, smooth
8.5	287	Total			

Subcatchment 80S: Riverside Street

Runoff = 1.55 cfs @ 12.11 hrs, Volume= 0.117 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.270	79	50-75% Grass cover, Fair, HSG C
0.026	73	Woods, Fair, HSG C
0.080	98	Paved parking & roofs
0.011	84	50-75% Grass cover, Fair, HSG D
0.387	83	Weighted Average
0.307		Pervious Area
0.080		Impervious Area

Subcatchment 60S: Lucas Tree Site

Runoff = 9.45 cfs @ 12.13 hrs, Volume= 0.801 af, Depth= 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.642	98	Paved parking & roofs
0.374	84	50-75% Grass cover, Fair, HSG D
0.100	89	Lucas Gravel Lot, HSG C
0.974	91	Lucas Gravel Lot, HSG D
0.060	74	>75% Grass cover, Good, HSG C
2.150	91	Weighted Average
1.508		Pervious Area
0.642		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.0200	0.14		**Sheet Flow, 60.1** Grass: Short n= 0.150 P2= 3.00"
4.0	235	0.0200	0.99		**Shallow Concentrated Flow, 60.2** Short Grass Pasture Kv= 7.0 fps
9.8	285	Total			

Subcatchment 70aS: Riverside Street

Runoff = 1.21 cfs @ 12.07 hrs, Volume= 0.089 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.162	98	Paved parking & roofs
0.070	79	Lucas Grass Area
0.232	92	Weighted Average
0.070		Pervious Area
0.162		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	25	0.0100	0.09		**Sheet Flow, 70a.1** Grass: Short n= 0.150 P2= 3.00"
0.8	238	0.0100	4.71	32.94	**Trap/Vee/Rect Channel Flow, 70a.2** Bot.W=2.00' D=0.50' Z= 48.0 & 0.0 '/' Top.W=26.00' n= 0.013 Asphalt, smooth
5.2	263	Total			

Subcatchment 53S: Area of Water District land

Runoff = 1.31 cfs @ 12.19 hrs, Volume= 0.118 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.143	84	50-75% Grass cover, Fair, HSG D
0.045	73	Woods, Fair, HSG C
0.275	74	>75% Grass cover, Good, HSG C
0.463	77	Weighted Average
0.463		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	40	0.0150	0.06		Sheet Flow, 53.1 Woods: Light underbrush n= 0.400 P2= 3.00"
1.4	100	0.0300	1.21		Shallow Concentrated Flow, 53.2 Short Grass Pasture Kv= 7.0 fps
13.4	140	Total			

Subcatchment 54S: Area of entrance

Runoff = 1.25 cfs @ 12.02 hrs, Volume= 0.086 af, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.190	98	Paved parking & roofs
0.010	79	Mulch Island
0.200	97	Weighted Average
0.010		Pervious Area
0.190		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0250	1.27		Sheet Flow, 54.1 Smooth surfaces n= 0.011 P2= 3.00"
0.9	140	0.0170	2.65		Shallow Concentrated Flow, 54.2 Paved Kv= 20.3 fps
1.6	190	Total			

Subcatchment 51S: Entrance/parking area

Runoff = 6.18 cfs @ 12.03 hrs, Volume= 0.418 af, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.878	98	Paved parking & roofs
0.143	80	>75% Grass cover, Good, HSG D
1.021	95	Weighted Average
0.143		Pervious Area
0.878		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.16		**Sheet Flow, 51.1** Smooth surfaces n= 0.011 P2= 3.00"
1.4	269	0.0260	3.27		**Shallow Concentrated Flow, 51.2** Paved Kv= 20.3 fps
2.1	319	Total			

Subcatchment 52S: Area of entrance

Runoff = 0.50 cfs @ 12.02 hrs, Volume= 0.034 af, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.075	98	Paved parking & roofs
0.005	79	Mulch Island
0.080	97	Weighted Average
0.005		Pervious Area
0.075		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0250	1.27		**Sheet Flow, 52.1** Smooth surfaces n= 0.011 P2= 3.00"
0.8	140	0.0214	2.97		**Shallow Concentrated Flow, 52.2** Paved Kv= 20.3 fps
1.5	190	Total			

Area (ac)	CN	Description
0.028	89	Gravel roads, HSG C
0.816	79	50-75% Grass cover, Fair, HSG C
0.844	79	Weighted Average
0.844		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0350	0.18		**Sheet Flow, 40.1** Grass: Short n= 0.150 P2= 3.00"
0.6	50	0.0350	1.31		**Shallow Concentrated Flow, 40.2** Short Grass Pasture Kv= 7.0 fps
1.7	242	0.0250	2.37		**Shallow Concentrated Flow, 40.3** Grassed Waterway Kv= 15.0 fps
6.9	342	Total			

Subcatchment 50S: South

Runoff = 19.10 cfs @ 12.08 hrs, Volume= 1.349 af, Depth= 3.83"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
1.330	98	Paved parking & roofs
0.840	73	Woods, Fair, HSG C
0.900	79	50-75% Grass cover, Fair, HSG C
0.747	84	50-75% Grass cover, Fair, HSG D
0.405	79	Woods, Fair, HSG D
4.222	85	Weighted Average
2.892		Pervious Area
1.330		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0500	0.21		**Sheet Flow, 50.1** Grass: Short n= 0.150 P2= 3.00"
0.2	25	0.1200	2.42		**Shallow Concentrated Flow, 50.2** Short Grass Pasture Kv= 7.0 fps
0.5	67	0.1900	2.18		**Shallow Concentrated Flow, 50.3** Woodland Kv= 5.0 fps
0.7	298	0.0420	6.72	80.64	**Trap/Vee/Rect Channel Flow, 50.4** Bot.W=10.00' D=1.00' Z= 2.0 '/' Top.W=14.00' n= 0.040 Winding stream, pools & shoals
5.4	440	Total			

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	32	0.0100	0.10		**Sheet Flow, 22.1** Grass: Short n= 0.150 P2= 3.00"

Subcatchment 30S: Western portion of site

Runoff = 17.68 cfs @ 12.16 hrs, Volume= 1.509 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.956	98	Paved parking & roofs
0.605	79	50-75% Grass cover, Fair, HSG C
0.765	73	Woods, Fair, HSG C
0.111	89	Gravel roads, HSG C
0.783	71	Meadow, non-grazed, HSG C
0.868	79	Woods, Fair, HSG D
1.276	78	Meadow, non-grazed, HSG D
0.067	84	50-75% Grass cover, Fair, HSG D
5.431	80	Weighted Average
4.475		Pervious Area
0.956		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	50	0.0180	0.14		**Sheet Flow, 30.1** Grass: Short n= 0.150 P2= 3.00"
1.0	110	0.0720	1.88		**Shallow Concentrated Flow, 30.2** Short Grass Pasture Kv= 7.0 fps
0.4	66	0.2700	2.60		**Shallow Concentrated Flow, 30.3** Woodland Kv= 5.0 fps
4.0	840	0.0115	3.52	42.19	**Trap/Vee/Rect Channel Flow, 30.4** Bot.W=10.00' D=1.00' Z= 2.0 '/' Top.W=14.00' n= 0.040 Winding stream, pools & shoals
11.5	1,066	Total			

Subcatchment 40S: Area of emergency access

Runoff = 3.10 cfs @ 12.10 hrs, Volume= 0.228 af, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.16		Sheet Flow, 20.1 Smooth surfaces n= 0.011 P2= 3.00"
1.9	215	0.0090	1.93		Shallow Concentrated Flow, 20.2 Paved Kv= 20.3 fps
0.6	195	0.0130	5.29	19.18	Trap/Vee/Rect Channel Flow, 20.3 Bot.W=1.00' D=0.50' Z= 25.0 & 0.0 '/' Top.W=13.50' n= 0.013 Asphalt, smooth
2.4	410	0.0100	2.81	16.44	Trap/Vee/Rect Channel Flow, 20.4 Bot.W=30.00' D=0.15' Z= 100.0 & 20.0 '/' Top.W=48.00' n= 0.013 Concrete, trowel finish
5.6	870	Total			

Subcatchment 21S: Area draining to "shelf" basin

Runoff = 4.44 cfs @ 12.03 hrs, Volume= 0.273 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.184	84	50-75% Grass cover, Fair, HSG D
0.720	79	50-75% Grass cover, Fair, HSG C
0.080	74	>75% Grass cover, Good, HSG C
0.984	80	Weighted Average
0.984		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	25	0.0800	0.22		Sheet Flow, 21.1 Grass: Short n= 0.150 P2= 3.00"
0.1	30	0.5300	5.10		Shallow Concentrated Flow, 21.2 Short Grass Pasture Kv= 7.0 fps
2.0	55	Total			

Subcatchment 22S: Area of Wet Pond

Runoff = 2.44 cfs @ 12.08 hrs, Volume= 0.170 af, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.103	98	Paved parking & roofs
0.546	74	>75% Grass cover, Good, HSG C
0.649	78	Weighted Average
0.546		Pervious Area
0.103		Impervious Area

Subcatchment 10S: North

Runoff = 6.54 cfs @ 12.10 hrs, Volume= 0.482 af, Depth= 3.73"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.618	79	50-75% Grass cover, Fair, HSG C
0.770	89	Gravel roads, HSG C
0.057	69	50-75% Grass cover, Fair, HSG B
0.105	84	50-75% Grass cover, Fair, HSG D
1.550	84	Weighted Average
1.550		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.0220	0.15		**Sheet Flow, 10.1** Grass: Short n= 0.150 P2= 3.00"
0.9	105	0.0160	2.04		**Shallow Concentrated Flow, 10.2** Unpaved Kv= 16.1 fps
0.1	37	0.5500	5.19		**Shallow Concentrated Flow, 10.3** Short Grass Pasture Kv= 7.0 fps
0.1	45	0.2000	5.75	19.16	**Parabolic Channel, 10.4** W=20.00' D=0.25' Area=3.3 sf Perim=20.0' n= 0.035 High grass
6.7	237	Total			

Subcatchment 20S: Paved area (majority of development)

Runoff = 24.81 cfs @ 12.08 hrs, Volume= 1.959 af, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.271	74	>75% Grass cover, Good, HSG C
4.297	98	Paved parking & roofs
4.568	97	Weighted Average
0.271		Pervious Area
4.297		Impervious Area

Pond 50P: 48" RCP at water line — Peak Elev=40.05' Storage=1,438 cf Inflow=39.97 cfs 3.360 af
48.0" x 76.0' Culvert Outflow=39.45 cfs 3.360 af

Pond 51P: Bioretention cell — Peak Elev=65.34' Storage=4,968 cf Inflow=6.18 cfs 0.418 af
Primary=5.20 cfs 0.372 af Secondary=0.00 cfs 0.000 af Outflow=5.20 cfs 0.372 af

Pond 52P: CB at Island — Peak Elev=63.46' Inflow=11.25 cfs 1.446 af
24.0" x 38.0' Culvert Outflow=11.25 cfs 1.446 af

Pond 53P: CB in grass — Peak Elev=63.70' Inflow=1.31 cfs 0.118 af
12.0" x 92.0' Culvert Outflow=1.31 cfs 0.118 af

Pond 55P: DMH at island — Peak Elev=62.58' Inflow=12.42 cfs 1.564 af
24.0" x 111.0' Culvert Outflow=12.42 cfs 1.564 af

Pond 60P: LucasCB — Peak Elev=70.97' Inflow=9.45 cfs 0.801 af
Primary=1.50 cfs 0.527 af Secondary=8.62 cfs 0.273 af Outflow=9.45 cfs 0.801 af

Pond 70aP: ExistCB — Peak Elev=69.74' Inflow=5.20 cfs 0.885 af
Primary=3.33 cfs 0.863 af Secondary=1.89 cfs 0.022 af Outflow=5.20 cfs 0.885 af

Pond 70P: Existing CB @ Riverside St — Peak Elev=71.76' Inflow=3.28 cfs 0.269 af
Primary=2.94 cfs 0.267 af Secondary=0.35 cfs 0.002 af Outflow=3.28 cfs 0.269 af

Pond 80P: Exist CB @ Riverside — Peak Elev=68.33' Inflow=14.83 cfs 1.275 af
Primary=4.55 cfs 0.977 af Secondary=12.66 cfs 0.298 af Outflow=14.83 cfs 1.275 af

Pond 90aP: Exist CB @ Riverside — Peak Elev=64.30' Inflow=10.99 cfs 1.412 af
24.0" x 48.0' Culvert Outflow=10.99 cfs 1.412 af

Pond 90P: Exist CB @ Riverside — Peak Elev=67.28' Inflow=16.98 cfs 1.487 af
Primary=10.99 cfs 1.412 af Secondary=5.99 cfs 0.075 af Outflow=16.98 cfs 1.487 af

Total Runoff Area = 23.903 ac Runoff Volume = 8.026 af Average Runoff Depth = 4.03"
61.77% Pervious Area = 14.765 ac 38.23% Impervious Area = 9.138 ac

PRINCIPAL OFFICERS: (if more space is needed, please attach a separate page)

Name N/A Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____

Please provide the following information and check all items for which information has been submitted. **20 COPIES MUST BE SUBMITTED WITH THIS APPLICATION FOR DISTRIBUTION TO CITY DEPARMENTS.**

Response: ALL INFORMATION REQUIRED FOR RENEWAL HAS PREVIOUSLY BEEN SUBMITTED TO CITY PLANNING DEPARTMENT, WITH EXCEPTION OF GROUNDWATER/SOIL SAMPLING. RESULTS TO BE PROVIDED TO CITY WITHIN 90 DAYS PRIOR TO EXPIRATION OF LICENSE AS PER ORDINANCE. APPLICANT WILL SUBMIT RESULTS TO CITY AFTER JULY 2011 SAMPLING.

_____ The maximum storage height of any piles of metal or other material.

_____ A map of the location of any areas on the site used for processing, preparing or storage of materials.

_____ A map of the location of any sand and/or gravel aquifer and/or any sand and gravel aquifer recharge area as described on the Maine Geological Survey significant aquifer map for the Portland West Quadrangle (GSM Map No. 99-11) or as mapped by a State of Maine certified geologist or other competent professional.

_____ A map of the location of any residences, schools, public parks, public playgrounds, public bathing beaches, churches, or cemeteries within 500 feet of the area where metal and/or materials will be stored or processed.

_____ A map of the boundaries of the 100-year floodplain.

_____ A map of any sand or gravel aquifer on or adjacent to the site as mapped by the Maine Geological Survey or by a licensed geologist.

_____ A map of any waterbody, watercourse or wetland on or within 300 feet of the site.

_X_ A site plan that complies with chapter 14, section 525(b) as files for approval by the Portland Planning Department/Board. **PREVIOUSLY SUBMITTED**
Please note date of site plan submission at Planning Office, 4th floor, City Hall: **latest full set provided on MAY 13, 2010

_X_ Results and data from on-site and off-site soil sampling and testing, which testing complies with the Rules attached hereto. **APPLICANT WILL PROVIDE RESULTS AFTER SAMPLING OCCURS IN JULY 2011 AS PER ORDINANCE REQUIREMENTS.**

_____ Results and data from on-site and off-site groundwater sampling and testing , which testing complies with the Rules attached hereto. **APPLICANT WILL PROVIDE RESULTS AFTER SAMPLING OCCURS IN JULY 2011 AS PER ORDINANCE REQUIREMENTS.**

_X_ A depiction of any and all screening of the site. **REVISED SCREENING PLAN DATED AUGUST 23, 2010 SUBMITTED AT THAT TIME TO CITY PLANNING DEPARTMENT.**

Planning _____
PPD _____
Zone _____
Taxes _____
Fire _____

City Clerk's Office
389 Congress Street
Portland, Maine 04101
(207)-874-8557

CITY CLERK

2011 JUL -1 P 12:09

New/ Renewal License fee $500.00 plus costs
After the Fact fee $1500.00
Application fee $30.00 new $25.00 renewal
Total Due $525.00 PD. 7/1/11 952

SCRAP METAL RECYCLING FACILITIES PERMIT APPLICATION
CHAPTER 31, PORTLAND CITY CODE §31-1 et. seq.

Please check one: (Corporation/ LLC/ Non-profit org. __x_) (Sole Proprietor ____) (Partnership ____)

Property Owner's Name: ___H. Finkelman, Inc.__ Phone:__503-224-9900_____

Property Owner's Address: 3200 N.W. Yeon Ave. Portland OR ___Zip____97210_____.
*If the property is owned by more than one entity please supplement above information on an additional sheet of paper.

Business Name: _Prolerized New England Company LLC/Schnitzer Northeast_Phone:__617-389-8300_

Location Address: _568 Riverside St, Portland, Maine __Zip_04103

Mailing Address: PO BOX 0048, 69 Rover St, Everett, MA __Zip_02149

Contact Person: _Joseph Nicolella_ Phone: _# 339-224-8949_____

Manager of Business ___Joe Murphy__ Home Phone # 207-310-4070_____

Does the issuance of this license benefit any City employee? ____Yes__x__No
If yes, please list name(s) of employee(s) and City Department(s):

Have applicant, partners, associates, or corporate officers ever been arrested, indicted, convicted or court martialed for any violation of law? _____NO___ If yes, please explain: _____

Have any of the applicants, including the corporation if applicable, ever held a business license with the City of Portland?
__X_____Yes _____No. If yes, please list business name(s) and location(s):
_____Prolerized New England Company LLC/Schnitzer Northeast , Riverside St., Portland _____
Is any principal officer under the age of 18? _____Yes __x_____No

Please list items or general type of items for sale, if any: ____N/A_____

SOLE PROPRIETOR / PARTNERSHIP INFORMATION: (if corporation, leave blank)
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____

CORPORATE / LLC / NON-PROFIT ORGANIZATION APPLICANTS: (if sole proprietor, leave blank)

Corporation Name: _Prolerized New England Company LLC _____

Corporation Mailing Address: _PO BOX 0048, 69 Rover St, Everett, MA _____ZIP__02149_____

Contact Person: Joseph Nicolella Phone Number: 339-224-8949 _____

Chapter 31
Sec. 31-1. Purpose.
Scrap Metal Recycling Facilities Chapter 31 Rev. 7-19-06
SCRAP METAL RECYCLING FACILITIES

	Sec. 31-7. Submission requirements. Any application for a scrap metal recycling facility license shall contain the following information and any additional information required by rules promulgated by the department:

	(a) The property owner's name, address and telephone number and the name, address and telephone number of the person or entity who will operate the site. If the property is owned by more than one person or entity, the name, address and telephone number of each owner must be listed. If the property is owned in whole or in part by a corporation, the name, address and telephone number of the corporation's registered agent in Maine must be listed. The name, address and telephone number of the person or entity to whom the city should send official notices or correspondence must also be listed.
Response	***The property is now owned by H. Finkelman, Inc., which leases the property to Prolerized New England Company LLC, the applicant. No other changes from the prior application.***

	(b) The maximum storage height of any piles of metal or other material.
Response	***No change from prior application.***

	(c) The location of any areas on the site used for processing, preparing or storage of materials.
Response	***Refer to Site Plan Amendment drawings, submitted to the City Planning Department on May 13, 2010.***

	(d) The location of any sand and/or gravel aquifer and/or any sand and gravel aquifer recharge area as described on the Maine Geological Survey significant aquifer map for the Portland West Quadrangle (GSM Map No. 99-11) or as mapped by a State of Maine certified geologist or other competent professional.
Response	***No change from prior application.***

	(e) The location of any residences, schools, public parks, public playgrounds, public bathing beaches, places of worship, or cemeteries within 500 feet of the area where metal and/or materials will be stored or processed.
Response	***No change from prior application.***

_____ *Other information.*

_____ 1. The types of metal processed on the site.

_____ 2. The types of waste handled and the average volume per year per material.

_____ 3. A description of the protocol for handling waste and the destination to which that waste is sent.

_____ 4. An operations manual as described in chapter 402 of the Maine Department of Environmental Protection regulations.

_____ 5. Operational records as described in chapter 402 of the Maine Department of Environmental Protection regulations.

__X__ 6. An annual report as described in chapter 402 of the Maine Department of Environmental Protection regulations. ANNUAL REPORT PREVIOUSLY SUBMITTED TO CITY ON MARCH 1, 2011.

Renewal Application

__x__ If this is a renewal application, please provide evidence of annual testing completed according to the Rules attached to this application. PRIOR GROUNDWATER SAMPLING RESULTS FROM FALL 2010 SUBMITTED TO CITY PLANNING DEPARTMENT BY ACADIA ENVIRONMENTAL TECHNOLOGY ON NOVEMBER 11, 2010. PER CITY ORDINANCE SECTION 31-7(h) and (i), ANNUAL SAMPLING IS TO BE CONDUCTED WTHIN 90 DAYS PRIOR TO EXPIRATION OF LICENSE. PNEC LLC WILL CONDUCT GROUNDWATER AND SOIL SAMPLING DURING JULY 2011 AND SUBMIT RESULTS TO CITY PLANNING DEPARTMENT THEREAFTER.

Applicant, by signature below, agrees to abide by all laws, orders, ordinances, rules and regulations governing the above license and further agrees that any misstatement of material fact may result in refusal of license or revocation if one has been granted. Applicant agrees that all taxes and accounts pertaining to the premises, or otherwise owed to the City by the Applicant, will be paid prior to issuance of the license.

It is understood that this and any application(s) shall become public record and the applicant(s) hereby waive(s) any rights to privacy with respect thereto.

I/We, hereby waive any rights to privacy with respect thereto.

Signature _____ Title General Manager Date 07/01/11

Sec. 31-9. Process and standards for renewal of a license.

(a) An application for a renewal of a license submitted pursuant to § 31-6(c) shall identify which information, if any, required on the original application pursuant to § 31-7, has been changed or modified since the last application was filed.

	(b) The applicant shall submit evidence that it conducted any soil and groundwater testing required under the scrap metal recycling facilities ordinance and its prior license and that it submitted the results of such testing to the department.
Response	***Pursuant to the ordinance regulations, sampling will occur in July, after which time results will be submitted to the City.***

	(c) If the results of the prior required testing resulted in the city requiring that the applicant submit and implement a remedial action plan, then the applicant must submit evidence that it implemented the remedial action plan.
Response	***No change from prior application.***

	(d) If the city council finds that the standard of subsections (a), (b) and (c) above have been met, the city council shall issue a renewal of the license.
Response	***Standards have been met.***

	(e) If the applicant can demonstrate that its license has been issued and renewed for a term of three (3) consecutive operating years starting from the first day of operation, the subsequent renewal of that license, assuming that subsection (d) above has been met, shall be for a three (3) year term, with consecutive three (3) year terms for renewal being issued thereafter subject to the conditions in (1) below.
Response	***No change from prior application.***

	(1) Environmental testing. If environmental testing in three consecutive operating years starting from the first day of operation demonstrates that the facility meets the environmental standards of the ordinance and any rules promulgated hereunder then environmental testing shall be conducted once every three years. If the triennial testing demonstrates that the environmental standards have not been met then the applicant must conduct annual testing until such time as the testing shows compliance for three consecutive years.
Response	***No change from prior application.***

	Nothing in this subparagraph (1) shall prevent the city from conducting environmental testing at its own expense in any year in which the applicant is not required to test on reasonable notice to and with the consent of the license holder, which consent shall not be unreasonably withheld.
Response	***No change from prior application.***

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(f) The boundaries of the 100-year floodplain.

Response *No change from prior application.*

(g) A site plan that complies with chapter 14, section 525(b) of the city code and also includes such other information as required by the rules promulgated by the department.

Response ***Refer to Site Plan drawings approved by the Planning Board July 8, 2008, and last amended and submitted to the City Planning Department on May 13, 2010. .***

(h) *Soil tests.* Results and data from soil sampling and testing will be required for licensing of scrap metal recycling facilities within the 90-day period prior to the end of the licensing period. Such testing shall comply with rules promulgated by the department.

Response ***Pursuant to the ordinance regulations, sampling will occur in July, after which time results will be submitted to the City.***

(i) *Groundwater tests.* Results and data from groundwater sampling and testing will be required for licensing of scrap metal recycling facilities within the 90-day period prior to the expiration of the licensing period. Such testing shall comply with rules promulgated by the department.

Response ***Pursuant to the ordinance regulations, sampling will occur in July, after which time results will be submitted to the City.***

(j) *Other information.*
1. The types of metal processed on the site;

Response *No change from prior application.*

2.The types of waste handled and the average volume per year per material;

Response *No change from prior application.*

3.A description of the protocol for handling waste and the destination to which that waste is sent;

Response *No change from prior application.*

4.An operations manual as described in chapter 402 of the Maine Department of Environmental Protection regulations;

Response *No change from prior application.*

5.Operational records as described in chapter 402 of the Maine Department of Environmental Protection regulations;

Response *No change from prior application.*

6.An annual report as described in chapter 402 of the Maine Department of Environmental Protection regulations.

Response *No change from prior application.*

C. Enter the weight or volume of secondary material used on-site and distributed off-site; report the state or province to which the material is shipped.

Type of product of secondary material produced	Weight or volume	Used on-site or shipped off-site?	Destination by state or province
None			

D. Enter the weight or volume of waste remaining after processing, the disposal facility to which the waste is shipped, and the location of the disposal facility by state or province.

Type of waste produced	Weight or volume	Disposal facility destination	Destination by state or province
None			

E. Enter the weight or volume of waste and secondary material stored on site as of December 31;

Type of product of secondary material stored on site as of 12/31	Weight or volume
None	

2. Operations

Provide a general summary of the processing operation including: problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility during the previous year

Due: February 28, 2011

Submit to: Maine DEP
Attn: Vicky Bryant
17 State House Station
Augusta, Maine 04333

Annual Report Form for SOLID WASTE PROCESSING FACILITIES

LICENSEE: Prolerized New England Company Report for Calendar Year: 2010

CONTACT PERSON: Keri Fitzpatrick PHONE NO: (781) 706-7003

DEP LICENSE NUMBER: S-022289-WK-A-N

1. Summary of activity during past year:

A. Enter the amount in weight or volume of each type of waste received by the facility, by state or province of origin, and, for residuals, by generator.

Type of waste received	Amount received by facility	State/province of origin	Generator (residuals only)
Ferrous Scrap Mixed Unprocessed	25,824 GT	Portland, Maine	
Non-Ferrous Scrap Mixed Unprocessed	405 GT	Portland, Maine	
Wood Waste, Demo and Pallets	0 GT	Portland, Maine	
Cardboard and Office paper	0 GT	Portland, Maine	

B. Enter the weight or volume of product and secondary material produced:

Type of product or secondary material produced	Weight or volume
None	

Stormwater Monitoring Program

Stormwater is monitored at three locations designated as Outfall #1, Outfall #2, and Outfall #3.

Outfall #1 is the discharge from the wet pond, which collects stormwater runoff from the primary material processing area. The entire drainage area to this outfall is covered by a concrete surface which is graded to flow into a 105-ft long precast concrete drainage channel, then through three parallel oil-water separator chambers, and into a wet pond prior to discharge to Outfall #1.

Outfall #2 is the discharge from the bioretention cell located to the south of the facility entrance. No scrap metal processing is performed in the areas draining to Outfall #2.

Outfall #3 is the discharge from an 18-inch culvert that collects runoff from two catch basins located in the paved area adjacent to the west side of the Process/Office building along with rain water collected in roof drains on the west side of the building and the building foundation drain. The drainage area that flows to this outfall does not include any outdoor processing areas.

In order to satisfy the requirements of the MEDEP Solid Waste Facility license, triannual monitoring of Outfall #1 for petroleum hydrocarbons is performed. In addition, the license specifies that the outlet of the oil-water separator (inlet of wet pond) will also be monitored during the first year. Quarterly visual monitoring of Outfalls #1, #2, and #3 will be performed to meet the requirements of the MSGP.

Stormwater samples are collected according to the procedures outlined in the EMP in the facility's Operations Manual. These procedures, which follow those in Maine's MSGP, require collection of a sample within the first 60 minutes (or as soon thereafter as possible but not more than 2.25 hrs) after initial discharge from the outfall for a storm producing greater than 0.10 inches of rainfall.

Stormwater monitoring was performed during a rainfall event on December 12, 2010. The total precipitation that fell during this storm, which started on December 12 and ended on December 13, based on weather data from the Portland Jetport, was 2.15 inches of rain. The previous rainfall event (to the event sampled) with greater than 0.10 inches occurred on December 4.

Grab samples were collected from Outfalls #1, #2, and #3. Each of the samples was also visually evaluated for foam, color, odor, clarity, floating solids, settled solid, suspended solids, and oil sheen according to the MSGP. A sample was also collected from Outfall #1 for laboratory analysis of total petroleum hydrocarbons by EPA Method 8015.

Stormwater Monitoring Results

Laboratory analysis of the sample collected at the wet pond outlet (Outfall #1) indicated that it contained 2.2 mg/l of petroleum hydrocarbons. A sample representative of the inlet to the pond could not be collected because the culverts discharging into the pond from the oil-water were submerged due to the heavy rain event.

The visual evaluation of stormwater at Outfall #2 showed evidence of fine suspended solids. Inspection of the drainage area to this outfall indicated that the likely source of the suspended material was un-stabilized soil upstream of the catch basin in the grassy area north of the facility entrance/exit roadway. The area immediately around the catch basin is located is fully vegetated,

The facility is newly constructed. Construction activities began in November 2009 and included site utility work, grading, installation of impermeable surfaces, a stormwater treatment system, and a building consisting of both offices and non-ferrous storage and operations area. The stormwater treatment system is designed to treat all runoff from any storm up to a 25-year storm rainfall amount of 5.4 inches. Facility construction was completed in September 2010 and the facility became operational on September 14, 2010.

3. Alterations to the facility site
   If any aspect of the facility site was changed, please submit as-built plans and a narrative on these changes (proposed minor design changes for current year may be described).

Not applicable.

4. Monitoring (if facility has a monitoring plan).
   A summary and evaluation of past year's monitoring results, monitoring program and equipment; recommended changes may be submitted. Attach additional sheets or provide a separate attachment if additional space is needed.

The groundwater monitoring was performed to meet the requirements for annual testing of groundwater (Rule #8 (a)) under the Scrap Metal Recycling Facility Rules (Rules) promulgated by the City of Portland (City) as authorized under Chapter 31, the ordinance for Scrap Metal Recycling Facilities, Revised July 19, 2006, of its Code of Ordinances. The monitoring wells that were sampled are designated as MW-1, MW-2, and MW-3.

Stormwater monitoring was performed in accordance with Maine's Multisector General Permit for Stormwater Discharge Associated with Industrial Activity (MSGP) and with Prolerized's solid waste facility license with MEDEP. The results of groundwater and surface water monitoring performed in 2010 are provided below.

Groundwater Monitoring Program

The solid waste permit refers to an environmental monitoring plan which includes the annual sampling of groundwater monitoring wells on-site. Groundwater sampling is performed using low-flow methods and is laboratory analyzed for VOCs (volatile organic compounds), SVOCs (semivolatile organic compounds), PCBs (polychlorinated biphenyls), RCRA 8 metals, antimony (Sb), nickel (Ni), zinc (Zn), and copper (Cu), extractable petroleum hydrocarbons (EPH), and volatile petroleum hydrocarbons (VPH);

The groundwater monitoring results were transmitted to the City of Portland and the Maine Department of Environmental Protection (MEDEP) in a report prepared by Acadia Environmental Technology of Portland, Maine dated November 11, 2010 and is briefly summarized below.

Groundwater Monitoring Results

Laboratory analysis indicated that none of the monitoring well samples contained SVOCs, VOCs, PCBs, EPH or VPH at a concentration equal to or above their practical quantification limit (PQL). None of the parameters were measured at levels that exceeded their respective Maine Center for Disease Control and Prevention (CDC) Maximum Exposure Guideline (MEG) for Drinking Water.

Sec. 31-9. Process and standards for renewal of a license.

(a) An application for a renewal of a license submitted pursuant to § 31-6(c) shall identify which information, if any, required on the original application pursuant to § 31-7, has been changed or modified since the last application was filed.

	(b) The applicant shall submit evidence that it conducted any soil and groundwater testing required under the scrap metal recycling facilities ordinance and its prior license and that it submitted the results of such testing to the department.
Response	***Pursuant to the ordinance regulations, sampling will occur in July, after which time results will be submitted to the City.***

	(c) If the results of the prior required testing resulted in the city requiring that the applicant submit and implement a remedial action plan, then the applicant must submit evidence that it implemented the remedial action plan.
Response	***No change from prior application.***

	(d) If the city council finds that the standard of subsections (a), (b) and (c) above have been met, the city council shall issue a renewal of the license.
Response	***Standards have been met.***

	(e) If the applicant can demonstrate that its license has been issued and renewed for a term of three (3) consecutive operating years starting from the first day of operation, the subsequent renewal of that license, assuming that subsection (d) above has been met, shall be for a three (3) year term, with consecutive three (3) year terms for renewal being issued thereafter subject to the conditions in (1) below.
Response	***No change from prior application.***

	(1) Environmental testing. If environmental testing in three consecutive operating years starting from the first day of operation demonstrates that the facility meets the environmental standards of the ordinance and any rules promulgated hereunder then environmental testing shall be conducted once every three years. If the triennial testing demonstrates that the environmental standards have not been met then the applicant must conduct annual testing until such time as the testing shows compliance for three consecutive years.
Response	***No change from prior application.***

	Nothing in this subparagraph (1) shall prevent the city from conducting environmental testing at its own expense in any year in which the applicant is not required to test on reasonable notice to and with the consent of the license holder, which consent shall not be unreasonably withheld.
Response	***No change from prior application.***

(f) The boundaries of the 100-year floodplain.

Response ***No change from prior application.***

(g) A site plan that complies with chapter 14, section 525(b) of the city code and also includes such other information as required by the rules promulgated by the department.

Response ***Refer to Site Plan drawings approved by the Planning Board July 8, 2008, and last amended and submitted to the City Planning Department on May 13, 2010.***

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Response ***Pursuant to the ordinance regulations, sampling will occur in July, after which time results will be submitted to the City.***

(j) *Other information.*
1. The types of metal processed on the site;

Response ***No change from prior application.***

2.The types of waste handled and the average volume per year per material;

Response ***No change from prior application.***

3.A description of the protocol for handling waste and the destination to which that waste is sent;

Response ***No change from prior application.***

4.An operations manual as described in chapter 402 of the Maine Department of Environmental Protection regulations;

Response ***No change from prior application.***

5.Operational records as described in chapter 402 of the Maine Department of Environmental Protection regulations;

Response ***No change from prior application.***

6.An annual report as described in chapter 402 of the Maine Department of Environmental Protection regulations.

Response ***No change from prior application.***

C. Enter the weight or volume of secondary material used on-site and distributed off-site; report the state or province to which the material is shipped.

Type of product of secondary material produced	Weight or volume	Used on-site or shipped off-site?	Destination by state or province
None			

D. Enter the weight or volume of waste remaining after processing, the disposal facility to which the waste is shipped, and the location of the disposal facility by state or province.

Type of waste produced	Weight or volume	Disposal facility destination	Destination by state or province
None			

E. Enter the weight or volume of waste and secondary material stored on site as of December 31;

Type of product of secondary material stored on site as of 12/31	Weight or volume
None	

2. Operations

Provide a general summary of the processing operation including: problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility during the previous year

Submit to: Maine DEP
Attn: Vicky Bryant
17 State House Station
Augusta, Maine 04333

Due: February 28, 2011

Annual Report Form for SOLID WASTE PROCESSING FACILITIES

LICENSEE: Prolerized New England Company Report for Calendar Year: 2010

CONTACT PERSON: Keri Fitzpatrick PHONE NO: (781) 706-7003

DEP LICENSE NUMBER: S-022289-WK-A-N

1. Summary of activity during past year:

A. Enter the amount in weight or volume of each type of waste received by the facility, by state or province of origin, and, for residuals, by generator.

Type of waste received	Amount received by facility	State/province of origin	Generator (residuals only)
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Non-Ferrous Scrap Mixed Unprocessed	405 GT	Portland, Maine	
Wood Waste, Demo and Pallets	0 GT	Portland, Maine	
Cardboard and Office paper	0 GT	Portland, Maine	

B. Enter the weight or volume of product and secondary material produced:

Type of product or secondary material produced	Weight or volume
None	

Stormwater Monitoring Program

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The facility is newly constructed. Construction activities began in November 2009 and included site utility work, grading, installation of impermeable surfaces, a stormwater treatment system, and a building consisting of both offices and non-ferrous storage and operations area. The stormwater treatment system is designed to treat all runoff from any storm up to a 25-year storm rainfall amount of 5.4 inches. Facility construction was completed in September 2010 and the facility became operational on September 14, 2010.

3. **Alterations to the facility site**
   If any aspect of the facility site was changed, please submit as-built plans and a narrative on these changes (proposed minor design changes for current year may be described).

Not applicable.

4. **Monitoring (if facility has a monitoring plan).**
   A summary and evaluation of past year's monitoring results, monitoring program and equipment; recommended changes may be submitted. Attach additional sheets or provide a separate attachment if additional space is needed.

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Groundwater Monitoring Program
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Chapter 31
Sec. 31-1. Purpose.
Scrap Metal Recycling Facilities Chapter 31 Rev. 7-19-06
SCRAP METAL RECYCLING FACILITIES

	Sec. 31-7. Submission requirements. Any application for a scrap metal recycling facility license shall contain the following information and any additional information required by rules promulgated by the department:

	(a) The property owner's name, address and telephone number and the name, address and telephone number of the person or entity who will operate the site. If the property is owned by more than one person or entity, the name, address and telephone number of each owner must be listed. If the property is owned in whole or in part by a corporation, the name, address and telephone number of the corporation's registered agent in Maine must be listed. The name, address and telephone number of the person or entity to whom the city should send official notices or correspondence must also be listed.
Response	***The property is now owned by H. Finkelman, Inc., which leases the property to Prolerized New England Company LLC, the applicant. No other changes from the prior application.***

	(b) The maximum storage height of any piles of metal or other material.
Response	***No change from prior application.***

	(c) The location of any areas on the site used for processing, preparing or storage of materials.
Response	***Refer to Site Plan Amendment drawings, submitted to the City Planning Department on May 13, 2010.***

	(d) The location of any sand and/or gravel aquifer and/or any sand and gravel aquifer recharge area as described on the Maine Geological Survey significant aquifer map for the Portland West Quadrangle (GSM Map No. 99-11) or as mapped by a State of Maine certified geologist or other competent professional.
Response	***No change from prior application.***

	(e) The location of any residences, schools, public parks, public playgrounds, public bathing beaches, places of worship, or cemeteries within 500 feet of the area where metal and/or materials will be stored or processed.
Response	***No change from prior application.***

_____ *Other information.*

_____ 1. The types of metal processed on the site.

_____ 2. The types of waste handled and the average volume per year per material.

_____ 3. A description of the protocol for handling waste and the destination to which that waste is sent.

_____ 4. An operations manual as described in chapter 402 of the Maine Department of Environmental Protection regulations.

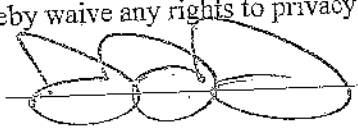
_____ 5. Operational records as described in chapter 402 of the Maine Department of Environmental Protection regulations.

__X__ 6. An annual report as described in chapter 402 of the Maine Department of Environmental Protection regulations. ANNUAL REPORT PREVIOUSLY SUBMITTED TO CITY ON MARCH 1, 2011.

Renewal Application

__x__ If this is a renewal application, please provide evidence of annual testing completed according to the Rules attached to this application. PRIOR GROUNDWATER SAMPLING RESULTS FROM FALL 2010 SUBMITTED TO CITY PLANNING DEPARTMENT BY ACADIA ENVIRONMENTAL TECHNOLOGY ON NOVEMBER 11, 2010. PER CITY ORDINANCE SECTION 31-7(h) and (i), ANNUAL SAMPLING IS TO BE CONDUCTED WTHIN 90 DAYS PRIOR TO EXPIRATION OF LICENSE. PNEC LLC WILL CONDUCT GROUNDWATER AND SOIL SAMPLING DURING JULY 2011 AND SUBMIT RESULTS TO CITY PLANNING DEPARTMENT THEREAFTER.

Applicant, by signature below, agrees to abide by all laws, orders, ordinances, rules and regulations governing the above license and further agrees that any misstatement of material fact may result in refusal of license or revocation if one has been granted. Applicant agrees that all taxes and accounts pertaining to the premises, or otherwise owed to the City by the Applicant, will be paid prior to issuance of the license.
It is understood that this and any application(s) shall become public record and the applicant(s) hereby waive(s) any rights to privacy with respect thereto.
I/We, hereby waive any rights to privacy with respect thereto.

Signature  Title Queen Manager Date 07/01/11

PRINCIPAL OFFICERS: (if more space is needed, please attach a separate page)

Name N/A Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____
Name _____ Title _____ Date of Birth _____ Residence Zip Code _____

Please provide the following information and check all items for which information has been submitted. **20 COPIES MUST BE SUBMITTED WITH THIS APPLICATION FOR DISTRIBUTION TO CITY DEPARMENTS.**

Response: ALL INFORMATION REQUIRED FOR RENEWAL HAS PREVIOUSLY BEEN SUBMITTED TO CITY PLANNING DEPARTMENT, WITH EXCEPTION OF GROUNDWATER/SOIL SAMPLING. RESULTS TO BE PROVIDED TO CITY WITHIN 90 DAYS PRIOR TO EXPIRATION OF LICENSE AS PER ORDINANCE. APPLICANT WILL SUBMIT RESULTS TO CITY AFTER JULY 2011 SAMPLING.

_____ The maximum storage height of any piles of metal or other material.

_____ A map of the location of any areas on the site used for processing, preparing or storage of materials.

_____ A map of the location of any sand and/or gravel aquifer and/or any sand and gravel aquifer recharge area as described on the Maine Geological Survey significant aquifer map for the Portland West Quadrangle (GSM Map No. 99-11) or as mapped by a State of Maine certified geologist or other competent professional.

_____ A map of the location of any residences, schools, public parks, public playgrounds, public bathing beaches, churches, or cemeteries within 500 feet of the area where metal and/or materials will be stored or processed.

_____ A map of the boundaries of the 100-year floodplain.

_____ A map of any sand or gravel aquifer on or adjacent to the site as mapped by the Maine Geological Survey or by a licensed geologist.

_____ A map of any waterbody, watercourse or wetland on or within 300 feet of the site.

_X_ A site plan that complies with chapter 14, section 525(b) as files for approval by the Portland Planning Department/Board. **PREVIOUSLY SUBMITTED**
Please note date of site plan submission at Planning Office, 4th floor, City Hall: **latest full set provided on MAY 13, 2010

_X_ Results and data from on-site and off-site soil sampling and testing, which testing complies with the Rules attached hereto. **APPLICANT WILL PROVIDE RESULTS AFTER SAMPLING OCCURS IN JULY 2011 AS PER ORDINANCE REQUIREMENTS.**

_____ Results and data from on-site and off-site groundwater sampling and testing , which testing complies with the Rules attached hereto. **APPLICANT WILL PROVIDE RESULTS AFTER SAMPLING OCCURS IN JULY 2011 AS PER ORDINANCE REQUIREMENTS.**

_X_ A depiction of any and all screening of the site. **REVISED SCREENING PLAN DATED AUGUST 23, 2010 SUBMITTED AT THAT TIME TO CITY PLANNING DEPARTMENT.**

Planning _____
PPD _____
Zone _____
Taxes _____
Fire _____

City Clerk's Office
389 Congress Street
Portland, Maine 04101
(207)-874-8557

New/ Renewal License fee $500.00 plus costs
After the Fact fee $1500.00
Application fee $30.00 new $25.00 renewal
Total Due $525.00

CITY CLERK
2011 JUL -1 P 12:09

SCRAP METAL RECYCLING FACILITIES PERMIT APPLICATION
CHAPTER 31, PORTLAND CITY CODE §31-1 et. seq.

Please check one: (Corporation/ LLC/ Non-profit org. _x_) (Sole Proprietor ____) (Partnership ____)

Property Owner's Name: H. Finkelman, Inc. Phone: 503-224-9900

Property Owner's Address: 3200 N.W. Yeon Ave, Portland OR Zip 97210

*If the property is owned by more than one entity please supplement above information on an additional sheet of paper.

Business Name: Prolerized New England Company LLC/Schnitzer Northeast Phone: 617-389-8300

Location Address: 568 Riverside St, Portland, Maine Zip 04103

Mailing Address: PO BOX 0048, 69 Rover St. Everett, MA Zip 02149

Contact Person: Joseph Nicolella Phone: # 339-224-8949

Manager of Business Joe Murphy Home Phone # 207-310-4070

Does the issuance of this license benefit any City employee? ____Yes _x_No
If yes, please list name(s) of employee(s) and City Department(s):

Have applicant, partners, associates, or corporate officers ever been arrested, indicted, convicted or court martialed for any violation of law? _____NO___ If yes, please explain: _____

Have any of the applicants, including the corporation if applicable, ever held a business license with the City of Portland?
_X_____Yes _____No. If yes, please list business name(s) and location(s):
_____Prolerized New England Company LLC/Schnitzer Northeast , Riverside St., Portland
Is any principal officer under the age of 18? _____Yes _x_____No

Please list items or general type of items for sale, if any: ____N/A

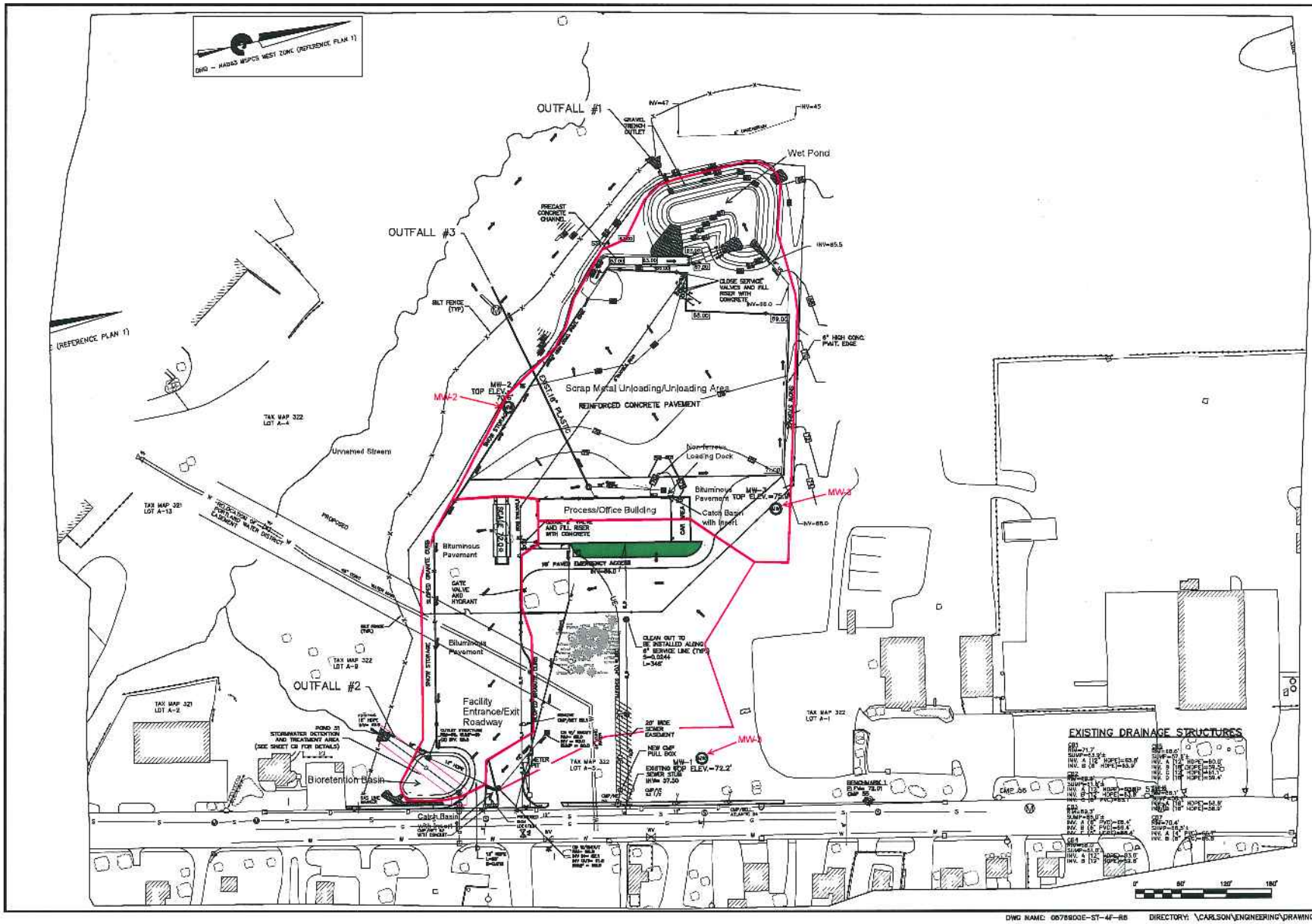
SOLE PROPRIETOR / PARTNERSHIP INFORMATION: (if corporation, leave blank)
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____
Name of Owner(s): _____ Date of Birth _____ Residence Zip Code _____

CORPORATE / LLC / NON-PROFIT ORGANIZATION APPLICANTS: (if sole proprietor, leave blank)

Corporation Name: Prolerized New England Company LLC

Corporation Mailing Address: PO BOX 0048, 69 Rover St, Everett, MA ZIP 02149

Contact Person: Joseph Nicolella Phone Number: 339-224-8949



DWG NAME: 0678SDGE-ST-4F-R6 DIRECTORY: \CARLSON\ENGINEERING\DRAWING DATE: 8/23/2010

STATE OF MAINE
CARL V. BEAL
No. 9013
REGISTERED PROFESSIONAL ENGINEER

CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
civil@civilcon.com

NO.	REVISIONS	INT.	DATE
7.	AS-BUILT DRAINAGE PLAN	CVB	05/23/10
6.	DELETED DITCH CONTOUR 84	CVB	07/28/10
5.	MODIFIED SCALE & ADDED PAVEMENT	CVB	8-31-10
4.	MODIFIED SCALE & ADDED PAVEMENT	CVB	9-10-10
3.	RAISE BLDG. FLOOR & SITE ELEV. 1'	CVB	9-13-10
2.	LOWER BLDG. FLOOR & SITE ELEV.	CVB	4-19-10
1.	ADD DITCH LEVEL SPREADER ON QTY	CVB	04/09/10

2009-2010 SITEWORK CONTRACT
PNE SCRAP METAL FACILITY
RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR:
PROLERIZED NEW ENGLAND CO., LLC
MAILING ADDRESS: 50 HOWE STREET, PEABODY, MA 01960

CIVIL CONSULTANTS

DRAWN: JAA CALC: CVB
DATE: 23 AUGUST 2010
CHECKED:
APPROVED:
SCALE: 1"= 60'

SHEET TITLE:
- GRADING PLAN

SHEET NUMBER:
D4

SHEET 1 of 1

PROJECT # 05-769.00

Table 1 –Metals Detected in Groundwater above PQL (results in mg/L)

Monitoring Location	Parameter	Feb. 2006 (GZA)	Nov. 2007 (Tewhey)	Sept. 2010	July 2011	August 2012	MEG
MW-1	Barium	0.022	0.025	0.012	0.0098	0.037	2.0
	Lead	<0.010	0.064	<0.005	<0.005	<0.005	0.010
MW-2	Arsenic	0.016	<0.008	0.008	0.014	0.015	0.010
	Barium	0.012	0.121	0.0202	0.0244	0.179	2.0
	Chromium	0.023	<0.015	<0.015	<0.015	<0.0100	0.040
	Lead	<0.010	0.021	<0.005	<0.005	<0.005	0.010
MW-3	Barium	0.008	0.041	0.0202	0.0210	0.0142	2.0
	Lead	<0.010	0.007	<0.005	<0.005	<0.005	0.010

Conclusions

Groundwater monitoring was performed at the Prolerized New England site at 568 Riverside Street as required under the City of Portland Scrap Metal Recycling Facility Rules. Monitoring results showed that the only exceedance of drinking water standards (MEGs) was for arsenic in MW-2. The level measured was 0.015 mg/L as compared to the 0.010 mg/L CDC-MEG. However, monitoring performed by GZA in 2006 prior to Prolerized's occupation of the site showed a result of 0.016 mg/L of Arsenic in a monitoring well in this same location. Therefore, although the arsenic concentration measured in August 2012 is above the MEG for arsenic, Acadia does not believe this is related to current site activities or that it represents an increasing trend. In addition, although the measured arsenic level in this well is above the MEG, a drinking water well survey performed by Tewhey in 2008 as part of their Phase II Supplemental Soil and Groundwater Investigation for the Lucas Tree property indicated that there are no drinking water supply wells within 2,500 feet of the site.

With the exception of arsenic, whose concentrations are consistent with preexisting background levels, the monitoring performed by PNE for the past three years have shown compliance with applicable regulatory guidelines. Therefore, in accordance with Rule # 8(c) of the Amendments to the Scrap Metal Recycling Facility Rules, PNE should be able to reduce groundwater monitoring to once every three years.

Katahdin ANALYTICAL SERVICES

nelac Cert. No. E87604

August 29, 2012

Ms. Erin Pike
Acadia Environmental Technology
48 Free Street
Portland,ME 04101

RE: Katahdin Lab Number: SF5538
Project ID: 059-008
Project Manager: Ms. Jennifer Obrin
Sample Receipt Date(s): August 22, 2012

Dear Ms. Pike:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Quality Control Data Summary
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to http://www.katahdinlab.com/cert.html for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES

Deborah J. Nadeau
Authorized Signature

08/29/2012
Date

Appendix A: Laboratory Report

Groundwater Monitoring, August 2011
Prolerized New England Company
Portland, Maine

Prepared for:

Schnitzer Northeast
69 Rover Street
Everett, MA 02149

Prepared by:

Acadia Environmental Technology
48 Free Street
Portland, Maine 04101

TECHNICAL NARRATIVE

Organics Analysis

The samples of work order SF5538 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP, May 2004, Revision 1.1, and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

Samples SF5538-2 and 4 had high recoveries for one or more surrogates, which were outside of the laboratory established acceptance limits. Since a high recovery would indicate a high bias and there were no target analytes detected above the PQL in the samples, the samples were not reanalyzed.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

8082 Analysis

Sample SF5538-2 had low recoveries for both surrogates, TCX and DCB, which were outside the laboratory established acceptance limits. The client was notified and informed the laboratory that the sample did not need to be reextracted and to narrate the deviations.

Sample SF5538-3 had a low recovery for the extraction surrogate DCB, which was outside of the laboratory established acceptance limits. Since the recovery for TCX was within the acceptance limits, the sample was not reextracted.

8270C Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The LCS WG112476-2 had low recoveries for several of the spiked target analytes, which were outside of the laboratory established acceptance limits. Since the LCSD WG112476-3 was acceptable, no further action was taken.

TECHNICAL NARRATIVE

Organics Analysis

The samples of work order SF5538 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP, May 2004, Revision 1.1, and/or for the specific methods listed below or on the Report of Analysis.

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The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The LCS WG112476-2 had low recoveries for several of the spiked target analytes, which were outside of the laboratory established acceptance limits. Since the LCSD WG112476-3 was acceptable, no further action was taken.

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-1
Client ID: MW-1
Project: 059-008
SDG: SF5538
Lab File ID: D1519.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dichlorodifluoromethane	U	2.0	ug/L	1	2	2.0
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethylene (Total)	U	2.0	ug/L	1	2	2.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
Dibromomethane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Techn
Lab ID: SF5538-1
Client ID: MW-1
Project: 059-008
SDG: SF5538
Lab File ID: D1519.D

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Analysis Date: 27-AUG-12
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Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
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Trichlorofluoromethane	U	1.0	ug/L	1	1	1.0
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cis-1,2-Dichloroethene	U	2.0	ug/L	1	2	2.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	1	1.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
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1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
Ethylbenzene						

http://www.katahdinlab.com

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-1
Client ID: MW-1
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Lab File ID: D1519.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		120.	%			
1,2-Dichloroethane-d4		132.	%			
Toluene-d8		123.	%			
P-Bromofluorobenzene		106.	%			

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Techno
Lab ID: SF5538-1
Client ID: MW-1
Project: 059-008
SDG: SF5538
Lab File ID: D1519.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		120.	%			
1,2-Dichloroethane-d4		132.	%			
Toluene-d8		123.	%			
P-Bromofluorobenzene		106.	%			

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-1
Client ID: MW-1
Project: 059-008
SDG: SF5538
Lab File ID: G6079.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 23-AUG-12
Extracted By: WAS
Extraction Method: SW846 3510
Lab Prep Batch: WG112476

Analysis Date: 25-AUG-12
Analyst: JCG
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 28-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dibenzofuran	U	9.4	ug/L	1	10	9.4
2,4-Dinitrotoluene	U	9.4	ug/L	1	10	9.4
Diethylphthalate	U	9.4	ug/L	1	10	9.4
4-Chlorophenyl-Phenylether	U	9.4	ug/L	1	10	9.4
Fluorene	U	9.4	ug/L	1	10	9.4
4-Nitroaniline	U	24.	ug/L	1	25	24.
4,6-Dinitro-2-Methylphenol	U	24.	ug/L	1	25	24.
N-Nitrosodiphenylamine	U	9.4	ug/L	1	10	9.4
4-Bromophenyl-Phenylether	U	9.4	ug/L	1	10	9.4
Hexachlorobenzene	U	9.4	ug/L	1	10	9.4
Pentachlorophenol	U	24.	ug/L	1	25	24.
Phenanthrene	U	9.4	ug/L	1	10	9.4
Anthracene	U	9.4	ug/L	1	10	9.4
Carbazole	U	9.4	ug/L	1	10	9.4
Di-N-Butylphthalate	U	9.4	ug/L	1	10	9.4
Fluoranthene	U	9.4	ug/L	1	10	9.4
Pyrene	U	9.4	ug/L	1	10	9.4
Butylbenzylphthalate	U	9.4	ug/L	1	10	9.4
3,3'-Dichlorobenzidine	U	9.4	ug/L	1	10	9.4
Benzo(a)anthracene	U	9.4	ug/L	1	10	9.4
Chrysene	U	9.4	ug/L	1	10	9.4
Bis(2-Ethylhexyl)Phthalate	U	9.4	ug/L	1	10	9.4
Di-N-Octylphthalate	U	9.4	ug/L	1	10	9.4
Benzo(b)fluoranthene	U	9.4	ug/L	1	10	9.4
Benzo(k)fluoranthene	U	9.4	ug/L	1	10	9.4
Benzo(a)pyrene	U	9.4	ug/L	1	10	9.4
Indeno(1,2,3-cd)pyrene	U	9.4	ug/L	1	10	9.4
Dibenzo(a,h)anthracene	U	9.4	ug/L	1	10	9.4
Benzo(g,h,i)perylene	U	9.4	ug/L	1	10	9.4
2-Fluorophenol		29.1	%			
Phenol-d6		15.3	%			
Nitrobenzene-d5		56.6	%			
2-Fluorobiphenyl		58.7	%			
2,4,6-Tribromophenol		76.9	%			
Terphenyl-d14		84.9	%			

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Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-1
Client ID: MW-1
Project: 059-008
SDG: SF5538
Lab File ID: G6079.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 23-AUG-12
Extracted By: WAS
Extraction Method: SW846 3510
Lab Prep Batch: WG112476

Analysis Date: 25-AUG-12
Analyst: JCG
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 28-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dibenzofuran	U	9.4	ug/L	1	10	9.4
2,4-Dinitrotoluene	U	9.4	ug/L	1	10	9.4
Diethylphthalate	U	9.4	ug/L	1	10	9.4
4-Chlorophenyl-Phenylether	U	9.4	ug/L	1	10	9.4
Fluorene	U	9.4	ug/L	1	10	9.4
4-Nitroaniline	U	24.	ug/L	1	25	24.
4,6-Dinitro-2-Methylphenol	U	24.	ug/L	1	25	24.
N-Nitrosodiphenylamine	U	9.4	ug/L	1	10	9.4
4-Bromophenyl-Phenylether	U	9.4	ug/L	1	10	9.4
Hexachlorobenzene	U	9.4	ug/L	1	10	9.4
Pentachlorophenol	U	24.	ug/L	1	25	24.
Phenanthrene	U	9.4	ug/L	1	10	9.4
Anthracene	U	9.4	ug/L	1	10	9.4
Carbazole	U	9.4	ug/L	1	10	9.4
Di-N-Butylphthalate	U	9.4	ug/L	1	10	9.4
Fluoranthene	U	9.4	ug/L	1	10	9.4
Pyrene	U	9.4	ug/L	1	10	9.4
Butylbenzylphthalate	U	9.4	ug/L	1	10	9.4
3,3'-Dichlorobenzidine	U	9.4	ug/L	1	10	9.4
Benzo(a)anthracene	U	9.4	ug/L	1	10	9.4
Chrysene	U	9.4	ug/L	1	10	9.4
Bis(2-Ethylhexyl)Phthalate	U	9.4	ug/L	1	10	9.4
Di-N-Octylphthalate	U	9.4	ug/L	1	10	9.4
Benzo(b)fluoranthene	U	9.4	ug/L	1	10	9.4
Benzo(k)fluoranthene	U	9.4	ug/L	1	10	9.4
Benzo(a)pyrene	U	9.4	ug/L	1	10	9.4
Indeno(1,2,3-cd)pyrene	U	9.4	ug/L	1	10	9.4
Dibenzo(a,h)anthracene	U	9.4	ug/L	1	10	9.4
Benzo(g,h,i)perylene	U	9.4	ug/L	1	10	9.4
2-Fluorophenol		29.1	%			
Phenol-d6		15.3	%			
Nitrobenzene-d5		56.6	%			
2-Fluorobiphenyl		58.7	%			
2,4,6-Tribromophenol		76.9	%			
Terphenyl-d14		84.9	%			

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Extractable Petroleum Hydrocarbon (EPH) Analysis

Client:	Acadia Environmental Technology, Inc.	**SDG:**	SF5538
Client Sample ID:	MW-1	**Date Collected:**	21-AUG-12
KAS Sample ID:	SF5538-1	**Date Received:**	22-AUG-12
Analytical Method:	MA DEP EPH 04-1.1	**Date Extracted:**	27-AUG-12
Prep Method:	SW846 3510	**Date Reported:**	29-AUG-12
Matrix:	AQ	**Percent Solids:**	NA

EPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C11-C22 Aromatics	94	94	ug/L	1	29-aug-2012 10:45	U
C9-C18 Aliphatics	94	94	ug/L	1	29-aug-2012 10:45	U
C19-C36 Aliphatics	94	94	ug/L	1	29-aug-2012 10:45	U
C11-C22 Aromatics	94.	94	ug/L	1	29-aug-2012 10:45	U

Targeted PAH Analytes	Results	PQL	Units	DF	Data Analyzed	Qual
Naphthalene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
2-Methylnaphthalene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Phenanthrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Acenaphthylene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Acenaphthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(a)anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(a)pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(b)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(g,h,i)perylene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(k)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Chrysene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Dibenzo(a,h)anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Fluorene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Indeno(1,2,3-cd)pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U

EPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
5-alpha androstane	52	40-140	29-aug-2012 10:45	
o-Terphenyl	65	40-140	29-aug-2012 10:45	
2-Fluorobiphenyl	72	40-140	29-aug-2012 10:45	
2-Bromonaphthalene	73	40-140	29-aug-2012 10:45	

* Fractionation Surrogates.

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

2 C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.

3 Diesel PAH Analytes.

Extractable Petroleum Hydrocarbon (EPH) Analysis

Client:	Acadia Environmental Technology, Inc.	SDG:	SF5538
Client Sample ID:	MW-1	Date Collected:	21-AUG-12
KAS Sample ID:	SF5538-1	Date Received:	22-AUG-12
Analytical Method:	MA DEP EPH 04-1.1	Date Extracted:	27-AUG-12
Prep Method:	SW846 3510	Date Reported:	29-AUG-12
Matrix:	AQ	Percent Solids:	NA

EPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C11-C22 Aromatics	94	94	ug/L	1	29-aug-2012 10:45	U
C9-C18 Aliphatics	94	94	ug/L	1	29-aug-2012 10:45	U
C19-C36 Aliphatics	94	94	ug/L	1	29-aug-2012 10:45	U
C11-C22 Aromatics	94	94	ug/L	1	29-aug-2012 10:45	U

Targeted PAH Analytes	Results	PQL	Units	DF	Date Analyzed	Qual
Naphthalene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
2-Methylnaphthalene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Phenanthrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Acenaphthylene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Acenaphthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(a)anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(a)pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(b)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(g,h,i)perylene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Benzo(k)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Chrysene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Dibenzo(a,h)anthracene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Fluorene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Indeno(1,2,3-cd)pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U
Pyrene	1.9	1.9	ug/L	1	29-aug-2012 10:45	U

EPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
5-alpha androstane	52	40-140	29-aug-2012 10:45	
o-Terphenyl	65	40-140	29-aug-2012 10:45	
2-Fluorobiphenyl	72	40-140	29-aug-2012 10:45	
2-Bromonaphthalene	73	40-140	29-aug-2012 10:45	

* Fractionation Surrogates.

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

2 C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.

3 Diesel PAH Analytes.

Katahdin ANALYTICAL SERVICES

REPORT OF ANALYTICAL RESULTS

Client: Erin Pike
Acadia Environmental Technology
48 Free Street
Portland, ME 04101

Lab Sample ID: SF5538-001
Report Date: 8/28/2012
PO No.:
Project: 059-008

Sample Description	Matrix	Filtered	Date Sampled	Date Received
MW-1	AQ	No(Total)	08/21/2012	08/22/2012

Parameter	Result	Units	Adjusted PQL	Dilution Factor	PQL	Analytical Method	Analysis Date	By	Prep Method	Prepped Date	By	QC	Notes
ARSENIC	U 0.008	mg/L	0.008	1	0.008	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
BARIUM	0.0370	mg/L	0.0050	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CADMIUM	U 0.00500	mg/L	0.00500	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CHROMIUM	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
LEAD	U 0.005	mg/L	0.005	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
MERCURY	U 0.20	ug/L	0.20	1	0.2	SW846 7470	8/27/12	NAT	SW846 7470	8/27/12	NAT	FH27HGW2	
SELENIUM	U 0.010	mg/L	0.010	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
SILVER	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	

Katahdin ANALYTICAL SERVICES

REPORT OF ANALYTICAL RESULTS

Client: Erin Pike
Acadia Environmental Technology
48 Free Street
Portland, ME 04101

Lab Sample ID: SF5538-001
Report Date: 8/28/2012
PO No.:
Project: 059-008

Sample Description	Matrix	Filtered	Date Sampled	Date Received
MW-1	AQ	No(Total)	08/21/2012	08/22/2012

Parameter	Result	Units	Adjusted PQL	Dilution Factor	PQL	Analytical Method	Analysis Date	By	Prep Method	Prepped Date	By	QC	Notes
ARSENIC	U 0.008	mg/L	0.008	1	0.008	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
BARIUM	0.0370	mg/L	0.0050	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CADMIUM	U 0.00500	mg/L	0.00500	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CHROMIUM	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
LEAD	U 0.005	mg/L	0.005	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
MERCURY	U 0.20	ug/L	0.20	1	0.2	SW846 7470	8/27/12	NAT	SW846 7470	8/27/12	NAT	FH27HGW2	
SELENIUM	U 0.010	mg/L	0.010	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
SILVER	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-2
Client ID: MW-2
Project: 059-008
SDG: SF5538
Lab File ID: D1520.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	1.0	ug/L	1	1	1.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	5.0	ug/L	1	5	5.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Xylenes (Total)	U	3.0	ug/L	1	3	3.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Diethyl Ether	U	1.0	ug/L	1	1	1.0

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http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Techno
Lab ID: SF5538-2
Client ID: MW-2
Project: 059-008
SDG: SF5538
Lab File ID: D1520.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	5.0	ug/L	1	5	5.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	2.0	ug/L	1	2	2.0
m+p-Xylenes	U	1.0	ug/L	1	1	1.0
o-Xylene	U	3.0	ug/L	1	3	3.0
Xylenes (Total)	U	1.0	ug/L	1	1	1.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Diethyl Ether						

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-2
Client ID: MW-2
Project: 059-008
SDG: SF5538
Lab File ID: G6080.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 23-AUG-12
Extracted By: WAS
Extraction Method: SW846 3510
Lab Prep Batch: WG112476

Analysis Date: 25-AUG-12
Analyst: JCG
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 28-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Phenol	U	9.5	ug/L	1	10	9.5
Bis(2-Chloroethyl)Ether	U	9.5	ug/L	1	10	9.5
2-Chlorophenol	U	9.5	ug/L	1	10	9.5
1,3-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
1,4-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
1,2-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
2-Methylphenol	U	9.5	ug/L	1	10	9.5
2,2'-Oxybis(1-Chloropropane)	U	9.5	ug/L	1	10	9.5
3&4-Methylphenol	U	9.5	ug/L	1	10	9.5
N-Nitroso-Di-N-Propylamine	U	9.5	ug/L	1	10	9.5
Hexachloroethane	U	9.5	ug/L	1	10	9.5
Nitrobenzene	U	9.5	ug/L	1	10	9.5
Isophorone	U	9.5	ug/L	1	10	9.5
2-Nitrophenol	U	9.5	ug/L	1	10	9.5
2,4-Dimethylphenol	U	9.5	ug/L	1	10	9.5
Bis(2-Chloroethoxy)Methane	U	9.5	ug/L	1	10	9.5
2,4-Dichlorophenol	U	9.5	ug/L	1	10	9.5
1,2,4-Trichlorobenzene	U	9.5	ug/L	1	10	9.5
Naphthalene	U	9.5	ug/L	1	10	9.5
4-Chloroaniline	U	9.5	ug/L	1	10	9.5
Hexachlorobutadiene	U	9.5	ug/L	1	10	9.5
4-Chloro-3-Methylphenol	U	9.5	ug/L	1	10	9.5
2-Methylnaphthalene	U	9.5	ug/L	1	10	9.5
Hexachlorocyclopentadiene	U	9.5	ug/L	1	10	9.5
2,4,6-Trichlorophenol	U	9.5	ug/L	1	10	9.5
2,4,5-Trichlorophenol	U	24.	ug/L	1	25	24.
2-Chloronaphthalene	U	9.5	ug/L	1	10	9.5
2-Nitroaniline	U	24.	ug/L	1	25	24.
Dimethyl Phthalate	U	9.5	ug/L	1	10	9.5
Acenaphthylene	U	9.5	ug/L	1	10	9.5
2,6-Dinitrotoluene	U	9.5	ug/L	1	10	9.5
3-Nitroaniline	U	24.	ug/L	1	25	24.
Acenaphthene	U	9.5	ug/L	1	10	9.5
2,4-Dinitrophenol	U	24.	ug/L	1	25	24.
4-Nitrophenol	U	24.	ug/L	1	25	24.

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Katahdin
ANALYTICAL SERVICES

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Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-2
Client ID: MW-2
Project: 059-008
SDG: SF5538
Lab File ID: G6080.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 23-AUG-12
Extracted By: WAS
Extraction Method: SW846 3510
Lab Prep Batch: WG112476

Analysis Date: 25-AUG-12
Analyst: JCG
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 28-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Phenol	U	9.5	ug/L	1	10	9.5
Bis(2-Chloroethyl)Ether	U	9.5	ug/L	1	10	9.5
2-Chlorophenol	U	9.5	ug/L	1	10	9.5
1,3-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
1,4-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
1,2-Dichlorobenzene	U	9.5	ug/L	1	10	9.5
2-Methylphenol	U	9.5	ug/L	1	10	9.5
2,2'-Oxybis(1-Chloropropane)	U	9.5	ug/L	1	10	9.5
3&4-Methylphenol	U	9.5	ug/L	1	10	9.5
N-Nitroso-Di-N-Propylamine	U	9.5	ug/L	1	10	9.5
Hexachloroethane	U	9.5	ug/L	1	10	9.5
Nitrobenzene	U	9.5	ug/L	1	10	9.5
Isophorone	U	9.5	ug/L	1	10	9.5
2-Nitrophenol	U	9.5	ug/L	1	10	9.5
2,4-Dimethylphenol	U	9.5	ug/L	1	10	9.5
Bis(2-Chloroethoxy)Methane	U	9.5	ug/L	1	10	9.5
2,4-Dichlorophenol	U	9.5	ug/L	1	10	9.5
1,2,4-Trichlorobenzene	U	9.5	ug/L	1	10	9.5
Naphthalene	U	9.5	ug/L	1	10	9.5
4-Chloroaniline	U	9.5	ug/L	1	10	9.5
Hexachlorobutadiene	U	9.5	ug/L	1	10	9.5
4-Chloro-3-Methylphenol	U	9.5	ug/L	1	10	9.5
2-Methylnaphthalene	U	9.5	ug/L	1	10	9.5
Hexachlorocyclopentadiene	U	9.5	ug/L	1	10	9.5
2,4,6-Trichlorophenol	U	24.	ug/L	1	25	24.
2,4,5-Trichlorophenol	U	9.5	ug/L	1	10	9.5
2-Chloronaphthalene	U	24.	ug/L	1	25	24.
2-Nitroaniline	U	9.5	ug/L	1	10	9.5
Dimethyl Phthalate	U	9.5	ug/L	1	10	9.5
Acenaphthylene	U	9.5	ug/L	1	10	9.5
2,6-Dinitrotoluene	U	24.	ug/L	1	25	24.
3-Nitroaniline	U	9.5	ug/L	1	10	9.5
Acenaphthene	U	24.	ug/L	1	25	24.
2,4-Dinitrophenol	U	24.	ug/L	1	25	24.
4-Nitrophenol						

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KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-008
PO No:
Sample Date: 08/21/12
Received Date: 08/22/12
Extraction Date: 08/27/12
Analysis Date: 28-AUG-2012 19:17
Report Date: 08/29/2012
Matrix: WATER
% Solids: NA

Lab ID: SF5538-2
Client ID: MW-2
SDG: SF5538
Extracted by: JH
Extraction Method: SW846 3510
Analyst: CB
Analysis Method: SW846 8082
Lab Prep Batch: WG112677
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Aroclor-1016	U	0.48	1.0	0.50	0.48
Aroclor-1221	U	0.48	1.0	0.50	0.48
Aroclor-1232	U	0.48	1.0	0.50	0.48
Aroclor-1242	U	0.48	1.0	0.50	0.48
Aroclor-1248	U	0.48	1.0	0.50	0.48
Aroclor-1254	U	0.48	1.0	0.50	0.48
Aroclor-1260	U	0.48	1.0	0.50	0.48
Tetrachloro-m-xylene		* 60%			
Decachlorobiphenyl		* 18%			

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-008
PO No:
Sample Date: 08/21/12
Received Date: 08/22/12
Extraction Date: 08/27/12
Analysis Date: 28-AUG-2012 19:17
Report Date: 08/29/2012
Matrix: WATER
% Solids: NA

Lab ID: SF5538-2
Client ID: MW-2
SDG: SF5538
Extracted by: JH
Extraction Method: SW846 3510
Analyst: CB
Analysis Method: SW846 8082
Lab Prep Batch: WG112677
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Aroclor-1016	U	0.48	1.0	0.50	0.48
Aroclor-1221	U	0.48	1.0	0.50	0.48
Aroclor-1232	U	0.48	1.0	0.50	0.48
Aroclor-1242	U	0.48	1.0	0.50	0.48
Aroclor-1248	U	0.48	1.0	0.50	0.48
Aroclor-1254	U	0.48	1.0	0.50	0.48
Aroclor-1260	U	0.48	1.0	0.50	0.48
Tetrachloro-m-xylene		* 60%			
Decachlorobiphenyl		* 18%			

7FH380.D

Volatile Petroleum Hydrocarbon (VPH) Analysis

Client:	Acadia Environmental Technology, Inc.	**SDG:**	SF5538
Client Sample ID:	MW-2	**Date Collected:**	21-AUG-12
KAS Sample ID:	SF5538-2	**Date Received:**	22-AUG-12
Analytical Method:	MA DEP VPH 04-1.1	**Date Extracted:**	24-AUG-12
Prep Method:		**Date Reported:**	28-AUG-12
Matrix:	AQ	**Percent Solids:**	NA

VPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
Unadjusted C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C10 Aromatics	100	100	ug/L	1	24-AUG-12	U

Targeted VPH Analytes	Results	PQL	Units	DF	Data Analyzed	Qual
Benzene	4.0	4	ug/L	1	24-AUG-12	U
Ethylbenzene	5.0	5	ug/L	1	24-AUG-12	U
Methyl tert-butylether	5.0	5	ug/L	1	24-AUG-12	U
Naphthalene	5.0	5	ug/L	1	24-AUG-12	U
Toluene	5.0	5	ug/L	1	24-AUG-12	U
m+p-Xylenes	10	10	ug/L	1	24-AUG-12	U
o-Xylene	5.0	5	ug/L	1	24-AUG-12	U

VPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
2,5-Dibromotoluene (FID)	97	70-130	24-AUG-12	
2,5-Dibromotoluene (PID)	90	70-130	24-AUG-12	

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2 C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.
3 C9-C12 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range AND concentration of C9-C10 Aromatics Hydrocarbons.

Volatile Petroleum Hydrocarbon (VPH) Analysis

Client:	Acadia Environmental Technology, Inc.	SDG:	SF5538
Client Sample ID:	MW-2	Date Collected:	21-AUG-12
KAS Sample ID:	SF5538-2	Date Received:	22-AUG-12
Analytical Method:	MA DEP VPH 04-1.1	Date Extracted:	24-AUG-12
Prep Method:		Date Reported:	28-AUG-12
Matrix:	AQ	Percent Solids:	NA

VPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
Unadjusted C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C10 Aromatics	100	100	ug/L	1	24-AUG-12	U

Targeted VPH Analytes	Results	PQL	Units	DF	Date Analyzed	Qual
Benzene	4.0	4	ug/L	1	24-AUG-12	U
Ethylbenzene	5.0	5	ug/L	1	24-AUG-12	U
Methyl tert-butylether	5.0	5	ug/L	1	24-AUG-12	U
Naphthalene	5.0	5	ug/L	1	24-AUG-12	U
Toluene	5.0	5	ug/L	1	24-AUG-12	U
m+p-Xylenes	10	10	ug/L	1	24-AUG-12	U
o-Xylene	5.0	5	ug/L	1	24-AUG-12	U

VPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
2,5-Dibromotoluene (FID)	97	70-130	24-AUG-12	
2,5-Dibromotoluene (PID)	90	70-130	24-AUG-12	

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2 C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.
3 C9-C12 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range AND concentration of C9-C10 Aromatics Hydrocarbons.

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-3RA
Client ID: MW-3
Project: 059-008
SDG: SF5538
Lab File ID: D1540.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	1.0	ug/L	1	1	1.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	5.0	ug/L	1	5	5.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Xylenes (Total)	U	3.0	ug/L	1	3	3.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Diethyl Ether	U	1.0	ug/L	1	1	1.0

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-3RA
Client ID: MW-3
Project: 059-008
SDG: SF5538
Lab File ID: D1540.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dichlorodifluoromethane	U	2.0	ug/L	1	2	2.0
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethene	U	5.0	ug/L	1	5	5.0
Methylene Chloride	U	1.0	ug/L	1	1	1.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	2.0	ug/L	1	2	2.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	1	1.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
Dibromomethane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
Ethylbenzene						

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Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-3RA
Client ID: MW-3
Project: 059-008
SDG: SF5538
Lab File ID: D1540.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		120.	%			
1,2-Dichloroethane-d4		122.	%			
Toluene-d8		121.	%			
P-Bromofluorobenzene		91.3	%			

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ANALYTICAL SERVICES

Cert No E87606

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-3RA
Client ID: MW-3
Project: 659-008
SDG: SF5538
Lab File ID: D1540.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		120.	%			
1,2-Dichloroethane-d4		122.	%			
Toluene-d8		121.	%			
P-Bromofluorobenzene		91.3	%			

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KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Acadia Environmenta
Project: 059-008
PO No:
Sample Date: 08/21/12
Received Date: 08/22/12
Extraction Date: 08/27/12
Analysis Date: 28-AUG-2012 19:43
Report Date: 08/29/2012
Matrix: WATER
% Solids: NA

Lab ID: SF5538-3
Client ID: MW-3
SDG: SF5538
Extracted by: JH
Extraction Method: SW846 3510
Analyst: CB
Analysis Method: SW846 8082
Lab Prep Batch: WG112677
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Aroclor-1016	U	0.48	1.0	0.50	0.48
Aroclor-1221	U	0.48	1.0	0.50	0.48
Aroclor-1232	U	0.48	1.0	0.50	0.48
Aroclor-1242	U	0.48	1.0	0.50	0.48
Aroclor-1248	U	0.48	1.0	0.50	0.48
Aroclor-1254	U	0.48	1.0	0.50	0.48
Aroclor-1260	U	0.48	1.0	0.50	0.48
Tetrachloro-m-xylene		81%			
Decachlorobiphenyl		* 27%			

Katahdin
ANALYTICAL SERVICES

Cert No E87624

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-3
Client ID: MW-3
Project: 059-008
SDG: SF5538
Lab File ID: G6081.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 23-AUG-12
Extracted By: WAS
Extraction Method: SW846 3510
Lab Prep Batch: WG112476

Analysis Date: 25-AUG-12
Analyst: JCG
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 28-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dibenzofuran	U	9.5	ug/L	1	10	9.5
2,4-Dinitrotoluene	U	9.5	ug/L	1	10	9.5
Diethylphthalate	U	9.5	ug/L	1	10	9.5
4-Chlorophenyl-Phenylether	U	9.5	ug/L	1	10	9.5
Fluorene	U	9.5	ug/L	1	10	9.5
4-Nitroaniline	U	24.	ug/L	1	25	24.
4,6-Dinitro-2-Methylphenol	U	24.	ug/L	1	25	24.
N-Nitrosodiphenylamine	U	9.5	ug/L	1	10	9.5
4-Bromophenyl-Phenylether	U	9.5	ug/L	1	10	9.5
Hexachlorobenzene	U	9.5	ug/L	1	10	9.5
Pentachlorophenol	U	24.	ug/L	1	25	24.
Phenanthrene	U	9.5	ug/L	1	10	9.5
Anthracene	U	9.5	ug/L	1	10	9.5
Carbazole	U	9.5	ug/L	1	10	9.5
Di-N-Butylphthalate	U	9.5	ug/L	1	10	9.5
Fluoranthene	U	9.5	ug/L	1	10	9.5
Pyrene	U	9.5	ug/L	1	10	9.5
Butylbenzylphthalate	U	9.5	ug/L	1	10	9.5
3,3'-Dichlorobenzidine	U	9.5	ug/L	1	10	9.5
Benzo(a)anthracene	U	9.5	ug/L	1	10	9.5
Chrysene	U	9.5	ug/L	1	10	9.5
Bis(2-Ethylhexyl)Phthalate	U	9.5	ug/L	1	10	9.5
Di-N-Octylphthalate	U	9.5	ug/L	1	10	9.5
Benzo(b)fluoranthene	U	9.5	ug/L	1	10	9.5
Benzo(k)fluoranthene	U	9.5	ug/L	1	10	9.5
Benzo(a)pyrene	U	9.5	ug/L	1	10	9.5
Indeno(1,2,3-cd)pyrene	U	9.5	ug/L	1	10	9.5
Dibenzo(a,h)anthracene	U	9.5	ug/L	1	10	9.5
Benzo(g,h,i)perylene	U	9.5	ug/L	1	10	9.5
2-Fluorophenol		30.7	%			
Phenol-d6		18.5	%			
Nitrobenzene-d5		59.3	%			
2-Fluorobiphenyl		60.6	%			
2,4,6-Tribromophenol		91.8	%			
Terphenyl-d14		84.0	%			

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Volatile Petroleum Hydrocarbon (VPH) Analysis

Client:	Acadia Environmental Technology, Inc.	**SDG:**	SF5538
Client Sample ID:	MW-3	**Date Collected:**	21-AUG-12
KAS Sample ID:	SF5538-3	**Date Received:**	22-AUG-12
Analytical Method:	MA DEP VPH 04-1.1	**Date Extracted:**	24-AUG-12
Prep Method:		**Date Reported:**	28-AUG-12
Matrix:	AQ	**Percent Solids:**	NA

VPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
Unadjusted C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C10 Aromatics	100	100	ug/L	1	24-AUG-12	U

Targeted VPH Analytes	Results	PQL	Units	DF	Date Analyzed	Qual
Benzene	4.0	4	ug/L	1	24-AUG-12	U
Ethylbenzene	5.0	5	ug/L	1	24-AUG-12	U
Methyl tert-butylether	5.0	5	ug/L	1	24-AUG-12	U
Naphthalene	5.0	5	ug/L	1	24-AUG-12	U
Toluene	5.0	5	ug/L	1	24-AUG-12	U
m+p-Xylenes	10	10	ug/L	1	24-AUG-12	U
o-Xylene	5.0	5	ug/L	1	24-AUG-12	U

VPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
2,5-Dibromotoluene (FID)	93	70-130	24-AUG-12	
2,5-Dibromotoluene (PID)	90	70-130	24-AUG-12	

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2 C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.
3 C9-C12 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range AND concentration of C9-C10 Aromatics Hydrocarbons.

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Extractable Petroleum Hydrocarbon (EPH) Analysis

Client:	Acadia Environmental Technology, Inc.	SDG:	SF5538
Client Sample ID:	MW-3	Date Collected:	21-AUG-12
KAS Sample ID:	SF5538-3	Date Received:	22-AUG-12
Analytical Method:	MA DEP EPH 04-1.1	Date Extracted:	27-AUG-12
Prep Method:	SW846 3510	Date Reported:	29-AUG-12
Matrix:	AQ	Percent Solids:	NA

EPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C11-C22 Aromatics	94	94	ug/L	1	29-aug-2012 12:14	U
C9-C18 Aliphatics	94	94	ug/L	1	29-aug-2012 12:14	U
C19-C36 Aliphatics	94	94	ug/L	1	29-aug-2012 12:14	U
C11-C22 Aromatics	94	94	ug/L	1	29-aug-2012 12:14	U

Targeted PAH Analytes	Results	PQL	Units	DF	Date Analyzed	Qual
Naphthalene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
2-Methylnaphthalene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Phenanthrene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Acenaphthylene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Acenaphthene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Anthracene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Benzo(a)anthracene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Benzo(a)pyrene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Benzo(b)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Benzo(g,h,i)perylene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Benzo(k)fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Chrysene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Dibenzo(a,h)anthracene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Fluoranthene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Fluorene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Indeno(1,2,3-cd)pyrene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U
Pyrene	1.9	1.9	ug/L	1	29-aug-2012 12:14	U

EPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
5-alpha androstane	37	40-140	29-aug-2012 12:14	*
o-Terphenyl	53	40-140	29-aug-2012 12:14	
2-Fluorobiphenyl	69	40-140	29-aug-2012 12:14	
2-Bromonaphthalene	72	40-140	29-aug-2012 12:14	

* Fractionation Surrogates.

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

2 C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.

3 Diesel PAH Analytes.

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-4
Client ID: TRIP BLANK
Project: 059-008
SDG: SF5538
Lab File ID: D1518.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dichlorodifluoromethane	U	2.0	ug/L	1	2	2.0
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethylene (Total)	U	2.0	ug/L	1	2	2.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
Dibromomethane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0

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Katahdin ANALYTICAL SERVICES

REPORT OF ANALYTICAL RESULTS

Client: Erin Pike
Acadia Environmental Technology
48 Free Street
Portland, ME 04101

Lab Sample ID: SF5538-003
Report Date: 8/28/2012
PO No.:
Project: 059-008

Sample Description	Matrix	Filtered	Date Sampled	Date Received
MW-3	AQ	No(Total)	08/21/2012	08/22/2012

Parameter	Result	Units	Adjusted PQL	Dilution Factor	PQL	Analytical Method	Analysis Date	By	Prep Method	Prepped Date	By	QC	Notes
ARSENIC	U 0.008	mg/L	0.008	1	0.008	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
BARIUM	0.0142	mg/L	0.0050	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CADMIUM	U 0.00500	mg/L	0.00500	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
CHROMIUM	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
LEAD	U 0.005	mg/L	0.005	1	0.005	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
MERCURY	U 0.20	ug/L	0.20	1	0.2	SW846 7470	8/27/12	NAT	SW846 7470	8/27/12	NAT	FH27HGW2	
SELENIUM	U 0.010	mg/L	0.010	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	
SILVER	U 0.0100	mg/L	0.0100	1	0.01	SW846 6010	8/25/12	EAM	SW846 3010	8/23/12	NAT	FH23ICW2	

Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-4
Client ID: TRIP BLANK
Project: 059-008
SDG: SF5538
Lab File ID: D1518.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		122.	%			
1,2-Dichloroethane-d4	*	136.	%			
Toluene-d8	*	128.	%			
P-Bromofluorobenzene		113.	%			

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Report of Analytical Results

Client: Acadia Environmental Technc
Lab ID: SF5538-4
Client ID: TRIP BLANK
Project: 059-008
SDG: SF5538
Lab File ID: D1518.D

Sample Date: 21-AUG-12
Received Date: 22-AUG-12
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	POL	ADJ POL
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	5.0	ug/L	1	5	5.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	2.0	ug/L	1	2	2.0
m+p-Xylenes	U	1.0	ug/L	1	1	1.0
o-Xylene	U	3.0	ug/L	1	3	3.0
Xylenes (Total)	U	1.0	ug/L	1	1	1.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Diethyl Ether						

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Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : 059-008
Lab File ID : D1517.D
Instrument ID : GCMS-D
Heated Purge : No

SDG : SF5538
Lab Sample ID : WG112731-8
Date Analyzed : 27-AUG-12
Time Analyzed : 19:49

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG112731-7	D1513.D	08/27/12	17:54
TRIP BLANK	SF5538-4	D1518.D	08/27/12	20:17
MW-1	SF5538-1	D1519.D	08/27/12	20:46
MW-2	SF5538-2	D1520.D	08/27/12	21:15

Volatile Petroleum Hydrocarbon (VPH) Analysis

Client:	Acadia Environmental Technology, Inc.	SDG:	SF5538
Client Sample ID:	TRIP BLANK	Date Collected:	21-AUG-12
KAS Sample ID:	SF5538-4	Date Received:	22-AUG-12
Analytical Method:	MA DEP VPH 04-1.1	Date Extracted:	24-AUG-12
Prep Method:		Date Reported:	28-AUG-12
Matrix:	AQ	Percent Solids:	NA

VPH Range Results	Results	PQL	Units	DF	Date Analyzed	Qual
Unadjusted C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
Unadjusted C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C5-C8 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C12 Aliphatics	100	100	ug/L	1	24-AUG-12	U
C9-C10 Aromatics	100	100	ug/L	1	24-AUG-12	U

Targeted VPH Analytes	Results	PQL	Units	DF	Date Analyzed	Qual
Benzene	4.0	4	ug/L	1	24-AUG-12	U
Ethylbenzene	5.0	5	ug/L	1	24-AUG-12	U
Methyl tert-butylether	5.0	5	ug/L	1	24-AUG-12	U
Naphthalene	5.0	5	ug/L	1	24-AUG-12	U
Toluene	5.0	5	ug/L	1	24-AUG-12	U
m+p-Xylenes	10	10	ug/L	1	24-AUG-12	U
o-Xylene	5.0	5	ug/L	1	24-AUG-12	U

VPH Surrogate Recoveries	Recovery	Acceptance Range	Date Analyzed	Qual
2,5-Dibromotoluene (FID)	80	70-130	24-AUG-12	
2,5-Dibromotoluene (PID)	88	70-130	24-AUG-12	

1 Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2 C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.
3 C9-C12 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range AND concentration of C9-C10 Aromatics Hydrocarbons.

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG112731-8
Client ID: Method Blank Sample
Project:
SDG: SF5538
Lab File ID: D1517.D

Sample Date:
Received Date:
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dichlorodifluoromethane	U	2.0	ug/L	1	2	2.0
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethylene (Total)	U	2.0	ug/L	1	2	2.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
Dibromomethane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0

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Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG112731-8
Client ID: Method Blank Sample
Project:
SDG: SF5538
Lab File ID: D1517.D

Sample Date:
Received Date:
Extract Date: 27-AUG-12
Extracted By: DJF
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJF
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Dichlorodifluoromethane	U	2.0	ug/L	1	2	2.0
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethene	U	5.0	ug/L	1	5	5.0
Methylene Chloride	U	1.0	ug/L	1	1	1.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	2.0	ug/L	1	2	2.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	1	1.0
2,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Bromochloromethane	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
1,1-Dichloropropene	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
Dibromomethane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
1,3-Dichloropropane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dibromoethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
1,1,1,2-Tetrachloroethane						

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Cert No E87604

LCS Recovery Report

Client:
Lab ID: WG112731-7
Client ID: LCS
Project:
SDG: SF5538

Sample Date:
Received Date: 28-AUG-12
Extract Date:
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dichlorodifluoromethane	98.4	50.0	49.2	ug/L	29-164
Chloromethane	93.0	50.0	46.5	ug/L	59-123
Vinyl Chloride	99.0	50.0	49.5	ug/L	64-131
Bromomethane	114.	50.0	56.8	ug/L	57-135
Chloroethane	98.0	50.0	49.0	ug/L	53-157
Trichlorofluoromethane	94.4	50.0	47.2	ug/L	70-149
1,1-Dichloroethene	97.0	50.0	48.5	ug/L	88-127
Methylene Chloride	97.2	50.0	48.6	ug/L	72-129
trans-1,2-Dichloroethene	95.0	50.0	47.5	ug/L	78-125
1,1-Dichloroethane	105.	50.0	52.4	ug/L	76-130
cis-1,2-Dichloroethene	105.	50.0	52.6	ug/L	85-123
1,2-Dichloroethylene (Total)	100.	100.	100.	ug/L	84-121
2,2-Dichloropropane	104.	50.0	52.0	ug/L	70-132
Chloroform	101.	50.0	50.5	ug/L	78-128
Bromochloromethane	92.8	50.0	46.4	ug/L	85-117
1,1,1-Trichloroethane	99.8	50.0	49.9	ug/L	77-129
1,2-Dichloroethane	99.0	50.0	49.5	ug/L	81-125
1,1-Dichloropropene	97.2	50.0	48.6	ug/L	87-118
Carbon Tetrachloride	102.	50.0	50.8	ug/L	87-126
Benzene	109.	50.0	54.7	ug/L	86-116
1,2-Dichloropropane	109.	50.0	54.5	ug/L	84-118
Trichloroethene	114.	50.0	56.8	ug/L	79-121
Dibromomethane	105.	50.0	52.4	ug/L	85-117
Bromodichloromethane	108.	50.0	53.8	ug/L	85-122
cis-1,3-Dichloropropene	102.	50.0	50.8	ug/L	83-119
Toluene	107.	50.0	53.4	ug/L	84-118
trans-1,3-Dichloropropene	110.	50.0	55.0	ug/L	85-135
1,1,2-Trichloroethane	103.	50.0	51.4	ug/L	84-115
1,3-Dichloropropane	106.	50.0	53.2	ug/L	80-119
Dibromochloromethane	104.	50.0	52.0	ug/L	85-119
Tetrachloroethene	99.8	50.0	49.9	ug/L	47-155
1,2-Dibromoethane	107.	50.0	53.3	ug/L	84-116
Chlorobenzene	103.	50.0	51.5	ug/L	89-113
1,1,1,2-Tetrachloroethane	106.	50.0	53.2	ug/L	88-118
Ethylbenzene	107.	50.0	53.5	ug/L	88-113

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG112731-8
Client ID: Method Blank Sample
Project:
SDG: SF5538
Lab File ID: D1517.D

Sample Date:
Received Date:
Extract Date: 27-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Diethyl Ether	U	1.0	ug/L	1	1	1.0
Tetrahydrofuran	U	5.0	ug/L	1	5	5.0
Tertiary-Amyl Methyl Ether	U	1.0	ug/L	1	1	1.0
Ethyl Tertiary-Butyl Ether	U	1.0	ug/L	1	1	1.0
Di-Isopropyl Ether	U	1.0	ug/L	1	1	1.0
Tertiary-butyl Alcohol	U	5.0	ug/L	1	5	5.0
Dibromofluoromethane		115.	%			
1,2-Dichloroethane-d4		128.	%			
Toluene-d8		125.	%			
P-Bromofluorobenzene		110.	%			

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LCS Recovery Report

Client:
Lab ID: WG112731-7
Client ID: LCS
Project:
SDG: SF5538

Sample Date:
Received Date: 28-AUG-12
Extract Date:
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Bromoform	104.	50.0	52.0	ug/L	86-117
Styrene	106.	50.0	52.9	ug/L	88-117
1,1,2,2-Tetrachloroethane	95.4	50.0	47.7	ug/L	79-121
1,2,3-Trichloropropane	97.4	50.0	48.7	ug/L	77-120
Isopropylbenzene	113.	50.0	56.5	ug/L	96-136
Bromobenzene	110.	50.0	55.1	ug/L	84-113
2-Chlorotoluene	96.4	50.0	48.2	ug/L	81-120
N-Propylbenzene	97.2	50.0	48.6	ug/L	83-121
4-Chlorotoluene	100.	50.0	50.0	ug/L	81-122
1,3,5-Trimethylbenzene	94.4	50.0	47.2	ug/L	80-123
tert-Butylbenzene	100.	50.0	50.0	ug/L	84-121
1,2,4-Trichlorobenzene	106.	50.0	53.1	ug/L	76-126
sec-Butylbenzene	97.2	50.0	48.6	ug/L	82-122
1,3-Dichlorobenzene	108.	50.0	53.9	ug/L	86-110
P-Isopropyltoluene	101.	50.0	50.5	ug/L	88-121
1,4-Dichlorobenzene	99.6	50.0	49.8	ug/L	86-111
1,2-Dichlorobenzene	109.	50.0	54.3	ug/L	86-112
N-Butylbenzene	95.6	50.0	47.8	ug/L	78-121
1,2-Dibromo-3-Chloropropane	89.2	50.0	44.6	ug/L	67-124
1,2,4-Trimethylbenzene	96.4	50.0	48.2	ug/L	83-118
Naphthalene	92.4	50.0	46.2	ug/L	62-126
Hexachlorobutadiene	96.8	50.0	48.4	ug/L	73-113
1,2,3-Trichlorobenzene	96.4	50.0	48.2	ug/L	70-122
Methyl tert-butyl Ether	105.	100.	105.	ug/L	81-125
Acetone	99.4	50.0	49.7	ug/L	62-172
2-Butanone	101.	50.0	50.5	ug/L	71-132
4-Methyl-2-Pentanone	* 80.0	50.0	40.0	ug/L	83-122
2-Hexanone	98.4	50.0	49.2	ug/L	80-124
m+p-Xylenes	110.	100.	110.	ug/L	88-116
o-Xylene	101.	50.0	50.7	ug/L	90-116
Xylenes (Total)	107.	150.	161.	ug/L	89-116
1,3,5-Trichlorobenzene	99.4	50.0	49.7	ug/L	77-120
Vinyl Acetate	104.	50.0	52.0	ug/L	56-129
Carbon Disulfide	94.8	50.0	47.4	ug/L	71-129
Diethyl Ether	95.6	50.0	47.8	ug/L	78-124

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ANALYTICAL SERVICES

Cert No E87604

LCS Recovery Report

Client:
Lab ID: WG112731-7
Client ID: LCS
Project:
SDG: SF5538

Sample Date:
Received Date: 28-AUG-12
Extract Date:
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112731

Analysis Date: 27-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Bromoform	104.	50.0	52.0	ug/L	86-117
Styrene	106.	50.0	52.9	ug/L	88-117
1,1,2,2-Tetrachloroethane	95.4	50.0	47.7	ug/L	79-121
1,2,3-Trichloropropane	97.4	50.0	48.7	ug/L	77-120
Isopropylbenzene	113.	50.0	56.5	ug/L	96-136
Bromobenzene	110.	50.0	55.1	ug/L	84-113
2-Chlorotoluene	96.4	50.0	48.2	ug/L	81-120
N-Propylbenzene	97.2	50.0	48.6	ug/L	83-121
4-Chlorotoluene	100.	50.0	50.0	ug/L	81-122
1,3,5-Trimethylbenzene	94.4	50.0	47.2	ug/L	80-123
tert-Butylbenzene	100.	50.0	50.0	ug/L	84-121
1,2,4-Trichlorobenzene	106.	50.0	53.1	ug/L	76-126
sec-Butylbenzene	97.2	50.0	48.6	ug/L	82-122
1,3-Dichlorobenzene	108.	50.0	53.9	ug/L	86-110
P-Isopropyltoluene	101.	50.0	50.5	ug/L	88-121
1,4-Dichlorobenzene	99.6	50.0	49.8	ug/L	86-111
1,2-Dichlorobenzene	109.	50.0	54.3	ug/L	86-112
N-Butylbenzene	95.6	50.0	47.8	ug/L	78-121
1,2-Dibromo-3-Chloropropane	89.2	50.0	44.6	ug/L	67-124
1,2,4-Trimethylbenzene	96.4	50.0	48.2	ug/L	83-118
Naphthalene	92.4	50.0	46.2	ug/L	62-126
Hexachlorobutadiene	96.8	50.0	48.4	ug/L	73-113
1,2,3-Trichlorobenzene	96.4	50.0	48.2	ug/L	70-122
Methyl tert-butyl Ether	105.	100.	105.	ug/L	81-125
Acetone	99.4	50.0	49.7	ug/L	62-172
2-Butanone	101.	50.0	50.5	ug/L	71-132
4-Methyl-2-Pentanone	* 80.0	50.0	40.0	ug/L	83-122
2-Hexanone	98.4	50.0	49.2	ug/L	80-124
m+p-Xylenes	110.	100.	110.	ug/L	88-116
o-Xylene	101.	50.0	50.7	ug/L	90-116
Xylenes (Total)	107.	150.	161.	ug/L	89-116
1,3,5-Trichlorobenzene	99.4	50.0	49.7	ug/L	77-120
Vinyl Acetate	104.	50.0	52.0	ug/L	56-129
Carbon Disulfide	94.8	50.0	47.4	ug/L	71-129
Diethyl Ether	95.6	50.0	47.8	ug/L	78-124

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Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : 059-008
Lab File ID : D1539.D
Instrument ID : GCMS-D
Heated Purge : No

SDG : SF5538
Lab Sample ID : WG112770-2
Date Analyzed : 28-AUG-12
Time Analyzed : 13:45

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG112770-1	D1536.D	08/28/12	12:09
MW-3	SF5538-3RA	D1540.D	08/28/12	14:13

Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : 059-008
Lab File ID : D1539.D
Instrument ID : GCMS-D
Heated Purge : No

SDG : SF5538
Lab Sample ID : WG112770-2
Date Analyzed : 28-AUG-12
Time Analyzed : 13:45

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG112770-1	D1536.D	08/28/12	12:09
MW-3	SF5538-3RA	D1540.D	08/28/12	14:13

Report of Analytical Results

Client:
Lab ID: WG112770-2
Client ID: Method Blank Sample
Project:
SDG: SF5538
Lab File ID: D1539.D

Sample Date:
Received Date:
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Ethylbenzene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	1.0	ug/L	1	1	1.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	5.0	ug/L	1	5	5.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Xylenes (Total)	U	3.0	ug/L	1	3	3.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate	U	1.0	ug/L	1	1	1.0

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG112770-2
Client ID: Method Blank Sample
Project:
SDG: SF5538
Lab File ID: D1539.D

Sample Date:
Received Date:
Extract Date: 28-AUG-12
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG112770

Analysis Date: 28-AUG-12
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-AUG-12

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Ethylbenzene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
Styrene	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
1,2,3-Trichloropropane	U	1.0	ug/L	1	1	1.0
Isopropylbenzene	U	1.0	ug/L	1	1	1.0
Bromobenzene	U	1.0	ug/L	1	1	1.0
2-Chlorotoluene	U	1.0	ug/L	1	1	1.0
N-Propylbenzene	U	1.0	ug/L	1	1	1.0
4-Chlorotoluene	U	1.0	ug/L	1	1	1.0
1,3,5-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
tert-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2,4-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
sec-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,3-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
P-Isopropyltoluene	U	1.0	ug/L	1	1	1.0
1,4-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
1,2-Dichlorobenzene	U	1.0	ug/L	1	1	1.0
N-Butylbenzene	U	1.0	ug/L	1	1	1.0
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	1	1.0
1,2,4-Trimethylbenzene	U	1.0	ug/L	1	1	1.0
Naphthalene	U	1.0	ug/L	1	1	1.0
Hexachlorobutadiene	U	1.0	ug/L	1	1	1.0
1,2,3-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Methyl tert-butyl Ether	U	5.0	ug/L	1	5	5.0
Acetone	U	5.0	ug/L	1	5	5.0
2-Butanone	U	5.0	ug/L	1	5	5.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
2-Hexanone	U	2.0	ug/L	1	2	2.0
m+p-Xylenes	U	1.0	ug/L	1	1	1.0
o-Xylene	U	3.0	ug/L	1	3	3.0
Xylenes (Total)	U	1.0	ug/L	1	1	1.0
1,3,5-Trichlorobenzene	U	1.0	ug/L	1	1	1.0
Vinyl Acetate						

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 poinis x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 20S: Paved area (majority of Runoff Area=4.568 ac 94.07% Impervious Runoff Depth=2.66"
Flow Length=870' Tc=5.6 min CN=97 Runoff=13.24 cfs 1.012 af

Subcatchment 22S: Area of Wet Pond Runoff Area=0.649 ac 15.87% Impervious Runoff Depth=1.13"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=0.85 cfs 0.061 af

Subcatchment 40S: Area of emergency Runoff Area=0.844 ac 0.00% Impervious Runoff Depth=1.19"
Flow Length=342' Tc=6.9 min CN=79 Runoff=1.11 cfs 0.084 af

Pond 20P: Pre-treatment Swale Peak Elev=64.71' Inflow=13.24 cfs 1.012 af
Primary=13.24 cfs 1.012 af Secondary=0.00 cfs 0.000 af Outflow=13.24 cfs 1.012 af

Pond 22P: Diversion Structure Peak Elev=64.18' Inflow=13.24 cfs 1.012 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=13.24 cfs 1.012 af

Pond 23P: Treatment Wet Pond Peak Elev=63.66' Storage=60,445 cf Inflow=15.06 cfs 1.157 af
Primary=4.22 cfs 0.922 af Secondary=0.00 cfs 0.000 af Outflow=4.22 cfs 0.922 af

Pond 40P: Culvert across emergency access Peak Elev=66.62' Storage=96 cf Inflow=1.11 cfs 0.084 af
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Outflow=1.09 cfs 0.084 af

Total Runoff Area = 6.061 ac Runoff Volume = 1.157 af Average Runoff Depth = 2.29"
27.40% Pervious = 1.661 ac 72.60% Impervious = 4.400 ac

Subcatchment 90S: Riverside Street Runoff Area=0.417 ac Runoff Depth=4.75"
Flow Length=311' Tc=8.2 min CN=83 Runoff=2.12 cfs 0.165 af

Reach 20R: From 36" RCP to stream Avg. Depth=0.37' Max Vel=6.33 fps Inflow=13.30 cfs 3.053 af
n=0.030 L=86.0' S=0.0756 '/' Capacity=77.92 cfs Outflow=13.30 cfs 3.053 af

Reach 50A: Stream Avg. Depth=1.12' Max Vel=3.56 fps Inflow=50.13 cfs 4.306 af
n=0.040 L=484.0' S=0.0103 '/' Capacity=137.18 cfs Outflow=48.80 cfs 4.306 af

Reach 50B: Stream Avg. Depth=1.20' Max Vel=4.04 fps Inflow=60.68 cfs 7.359 af
n=0.040 L=366.0' S=0.0123 '/' Capacity=149.66 cfs Outflow=60.20 cfs 7.356 af

Reach 60R: Flow through 8S Avg. Depth=0.35' Max Vel=2.07 fps Inflow=10.16 cfs 0.368 af
n=0.030 L=185.0' S=0.0122 '/' Capacity=21.87 cfs Outflow=10.08 cfs 0.368 af

Reach 70R: ExistSwale Avg. Depth=0.83' Max Vel=4.97 fps Inflow=28.64 cfs 2.559 af
n=0.040 L=260.0' S=0.0377 '/' Capacity=19,583.96 cfs Outflow=28.49 cfs 2.559 af

Reach 72R: Overflow adjacent to Riverside Avg. Depth=0.90' Max Vel=2.22 fps Inflow=10.40 cfs 0.163 af
n=0.040 L=68.0' S=0.0074 '/' Capacity=30.70 cfs Outflow=10.36 cfs 0.163 af

Reach 73R: Overflow adjacent to Bioretenti Avg. Depth=0.43' Max Vel=6.33 fps Inflow=10.36 cfs 0.163 af
n=0.040 L=75.0' S=0.1533 '/' Capacity=32.42 cfs Outflow=10.36 cfs 0.163 af

Reach CURB: curb flow model Avg. Depth=0.00' Max Vel=0.00 fps
n=0.011 L=243.0' S=0.0080 '/' Capacity=34.78 cfs Outflow=0.00 cfs 0.000 af

Reach OUT 1: Wetland feeding stream Inflow=8.85 cfs 0.754 af
Outflow=8.85 cfs 0.754 af

Reach OUT 2: Stream Inflow=83.51 cfs 9.356 af
Outflow=83.51 cfs 9.356 af

Pond 20P: Pre-treatment Swale Peak Elev=66.21' Inflow=30.32 cfs 2.414 af
Primary=21.21 cfs 2.319 af Secondary=10.48 cfs 0.095 af Outflow=30.32 cfs 2.414 af

Pond 21P: 36" RCP manhole outlet Peak Elev=42.90' Storage=437 cf Inflow=13.31 cfs 3.053 af
Outflow=13.30 cfs 3.053 af

Pond 22P: Diversion Structure Peak Elev=65.53' Inflow=21.21 cfs 2.319 af
15.0" x 25.0' Culvert Outflow=21.21 cfs 2.319 af

Pond 23P: Treatment Wet Pond Peak Elev=65.11' Storage=84,946 cf Inflow=36.63 cfs 2.945 af
Primary=9.87 cfs 2.691 af Secondary=5.09 cfs 0.127 af Outflow=14.96 cfs 2.818 af

Pond 40P: Culvert across emergency access Peak Elev=68.10' Storage=589 cf Inflow=4.11 cfs 0.303 af
12.0" x 94.0' Culvert Outflow=3.13 cfs 0.303 af

Pond 50P: 48" RCP at water line — Peak Elev=40.35' Storage=2,158 cf Inflow=50.99 cfs 4.306 af
48.0" x 76.0' Culvert Outflow=50.13 cfs 4.306 af

Pond 51P: Bioretention cell — Peak Elev=65.39' Storage=5,186 cf Inflow=7.59 cfs 0.520 af
Primary=6.46 cfs 0.474 af Secondary=0.00 cfs 0.000 af Outflow=6.46 cfs 0.474 af

Pond 52P: CB at island — Peak Elev=63.60' Inflow=11.48 cfs 1.764 af
24.0" x 38.0' Culvert Outflow=11.48 cfs 1.764 af

Pond 53P: CB in grass — Peak Elev=63.85' Inflow=1.75 cfs 0.158 af
12.0" x 92.0' Culvert Outflow=1.75 cfs 0.158 af

Pond 55P: DMH at island — Peak Elev=62.69' Inflow=13.04 cfs 1.922 af
24.0" x 111.0' Culvert Outflow=13.04 cfs 1.922 af

Pond 60P: LucasCB — Peak Elev=71.03' Inflow=11.78 cfs 1.011 af
Primary=1.62 cfs 0.643 af Secondary=10.16 cfs 0.368 af Outflow=11.78 cfs 1.011 af

Pond 70aP: ExistCB — Peak Elev=69.79' Inflow=6.92 cfs 1.093 af
Primary=3.33 cfs 1.045 af Secondary=3.61 cfs 0.047 af Outflow=6.92 cfs 1.093 af

Pond 70P: Existing CB @ Riverside St — Peak Elev=71.81' Inflow=4.08 cfs 0.338 af
Primary=2.94 cfs 0.329 af Secondary=1.14 cfs 0.010 af Outflow=4.08 cfs 0.338 af

Pond 80P: Exist CB @ Riverside — Peak Elev=68.37' Inflow=18.76 cfs 1.614 af
Primary=4.54 cfs 1.162 af Secondary=16.82 cfs 0.452 af Outflow=18.76 cfs 1.614 af

Pond 90aP: Exist CB @ Riverside — Peak Elev=64.46' Inflow=11.15 cfs 1.722 af
24.0" x 48.0' Culvert Outflow=11.15 cfs 1.722 af

Pond 90P: Exist CB @ Riverside — Peak Elev=67.53' Inflow=21.55 cfs 1.885 af
Primary=11.15 cfs 1.722 af Secondary=10.40 cfs 0.163 af Outflow=21.55 cfs 1.885 af

Total Runoff Area = 23.903 ac Runoff Volume = 10.286 af Average Runoff Depth = 5.16"
61.77% Pervious Area = 14.765 ac 38.23% Impervious Area = 9.138 ac

Primary OutFlow Max=10.98 cfs @ 12.13 hrs HW=67.28' TW=64.30' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 10.98 cfs @ 6.21 fps)

Secondary OutFlow Max=5.98 cfs @ 12.13 hrs HW=67.28' TW=67.20' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir**(Weir Controls 5.98 cfs @ 1.12 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10S: North Runoff Area=1.550 ac Runoff Depth=4.86"
Flow Length=237' Tc=6.7 min CN=84 Runoff=8.43 cfs 0.627 af

Subcatchment 20S: Paved area (majority of development) Runoff Area=4.568 ac Runoff Depth=6.34"
Flow Length=870' Tc=5.6 min CN=97 Runoff=30.32 cfs 2.414 af

Subcatchment 21S: Area draining to "shelf" basin Runoff Area=0.984 ac Runoff Depth=4.42"
Flow Length=55' Tc=2.0 min CN=80 Runoff=5.85 cfs 0.362 af

Subcatchment 22S: Area of Wet Pond Runoff Area=0.649 ac Runoff Depth=4.20"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=3.26 cfs 0.227 af

Subcatchment 30S: Western portion of site Runoff Area=5.431 ac Runoff Depth=4.42"
Flow Length=1,066' Tc=11.5 min CN=80 Runoff=23.32 cfs 2.000 af

Subcatchment 40S: Area of emergency access Runoff Area=0.844 ac Runoff Depth=4.31"
Flow Length=342' Tc=6.9 min CN=79 Runoff=4.11 cfs 0.303 af

Subcatchment 50S: South Runoff Area=4.222 ac Runoff Depth=4.97"
Flow Length=440' Tc=5.4 min CN=85 Runoff=24.48 cfs 1.747 af

Subcatchment 51S: Entrance/parking area Runoff Area=1.021 ac Runoff Depth=6.11"
Flow Length=319' Tc=2.1 min CN=95 Runoff=7.59 cfs 0.520 af

Subcatchment 52S: Area of entrance Runoff Area=0.080 ac Runoff Depth=6.34"
Flow Length=190' Tc=1.5 min CN=97 Runoff=0.61 cfs 0.042 af

Subcatchment 53S: Area of Water District land Runoff Area=0.463 ac Runoff Depth=4.10"
Flow Length=140' Tc=13.4 min CN=77 Runoff=1.75 cfs 0.158 af

Subcatchment 54S: Area of entrance Runoff Area=0.200 ac Runoff Depth=6.34"
Flow Length=190' Tc=1.6 min CN=97 Runoff=1.53 cfs 0.106 af

Subcatchment 60S: Lucas Tree Site Runoff Area=2.150 ac Runoff Depth=5.64"
Flow Length=285' Slope=0.0200 '/' Tc=9.8 min CN=91 Runoff=11.78 cfs 1.011 af

Subcatchment 70aS: Riverside Street Runoff Area=0.232 ac Runoff Depth=5.76"
Flow Length=263' Slope=0.0100 '/' Tc=5.2 min CN=92 Runoff=1.50 cfs 0.111 af

Subcatchment 70S: Riverside Street Runoff Area=0.705 ac Runoff Depth=5.76"
Flow Length=287' Slope=0.0100 '/' Tc=8.5 min CN=92 Runoff=4.08 cfs 0.338 af

Subcatchment 80S: Riverside Street Runoff Area=0.387 ac Runoff Depth=4.75"
Flow Length=172' Tc=7.5 min CN=83 Runoff=2.01 cfs 0.153 af

Device	Routing	Invert	Outlet Devices
#1	Device 2	64.50'	**6.000 in/hr Exfiltration over Surface area above invert** Excluded Surface area = 7,324 sf
#2	Device 3	61.75'	**4.0" x 75.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 61.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#3	Primary	60.00'	**12.0" x 42.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 59.00' S= 0.0238 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#4	Secondary	65.45'	**8.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#5	Device 3	65.00'	**2.00' x 2.00' Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Primary OutFlow Max=5.19 cfs @ 12.07 hrs HW=65.34' TW=50.47' (Dynamic Tailwater)
└─**3=Culvert** (Passes 5.19 cfs of 6.57 cfs potential flow)
  ├─**2=Culvert** (Passes 0.08 cfs of 0.50 cfs potential flow)
  │ └─**1=Exfiltration** (Exfiltration Controls 0.08 cfs)
  └─**5=Orifice/Grate** (Weir Controls 5.11 cfs @ 1.90 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=62.75' TW=49.80' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 52P: CB at island

Inflow Area = 4.171 ac, Inflow Depth = 4.16" for 25YR event
Inflow = 11.25 cfs @ 12.09 hrs, Volume= 1.446 af
Outflow = 11.25 cfs @ 12.09 hrs, Volume= 1.446 af, Atten= 0%, Lag= 0.0 min
Primary = 11.25 cfs @ 12.09 hrs, Volume= 1.446 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 63.46' @ 12.14 hrs
Flood Elev= 67.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.90'	**24.0" x 38.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 60.60' S= 0.0079 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean

Primary OutFlow Max=11.25 cfs @ 12.09 hrs HW=63.44' TW=62.55' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 11.25 cfs @ 3.58 fps)

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.3 min (812.9 - 812.6)

Volume	Invert	Avail.Storage	Storage Description
#1	38.00'	57,309 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
38.00	0	0.0	0	0	0
40.00	2,009	339.0	1,339	1,339	9,151
42.00	6,988	589.0	8,496	9,835	27,637
44.00	12,041	673.0	18,801	28,637	36,166
46.00	16,761	791.0	28,672	57,309	49,991

Device	Routing	Invert	Outlet Devices
#1	Primary	38.00'	48.0" x 76.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 36.00' S= 0.0263 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean

Primary OutFlow Max=39.40 cfs @ 12.12 hrs HW=40.05' TW=36.96' (Dynamic Tailwater)
↑—1=Culvert (Inlet Controls 39.40 cfs @ 6.09 fps)

Pond 51P: Bioretention cell

Inflow Area =	1.021 ac,	Inflow Depth = 4.92"	for 25YR event	
Inflow =	6.18 cfs @	12.03 hrs, Volume=	0.418 af	
Outflow =	5.20 cfs @	12.07 hrs, Volume=	0.372 af,	Atten= 16%, Lag= 2.3 min
Primary =	5.20 cfs @	12.07 hrs, Volume=	0.372 af	
Secondary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 65.34' @ 12.07 hrs Surf.Area= 7,905 sf Storage= 4,968 cf
Flood Elev= 199.50' Surf.Area= 8,395 sf Storage= 7,828 cf

Plug-Flow detention time= 225.1 min calculated for 0.372 af (89% of inflow)
Center-of-Mass det. time= 172.8 min (935.0 - 762.2)

Volume	Invert	Avail.Storage	Storage Description
#1	64.50'	6,022 cf	**Ponding over bioretention (Conic)** Listed below (Recalc)
#2	62.75'	1,807 cf	**51.00'W x 68.00'L x 1.50'H Prismatoid Z=1.0** 5,474 cf Overall x 33.0% Voids
		7,828 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
64.50	3,490	0	0	3,490
65.00	3,833	1,830	1,830	3,849
66.00	4,561	4,192	6,022	4,613

Primary OutFlow Max=8.99 cfs @ 12.40 hrs HW=64.79' TW=42.82' (Dynamic Tailwater)
└─**1=Culvert** (Passes 8.99 cfs of 32.42 cfs potential flow)
  ├─**2=Exfiltration** (Exfiltration Controls 0.24 cfs)
  └─**3=Orifice/Grate** (Orifice Controls 8.75 cfs @ 5.98 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=62.00' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 40P: Culvert across emergency access

Inflow Area = 0.844 ac, Inflow Depth = 3.24" for 25YR event
Inflow = 3.10 cfs @ 12.10 hrs, Volume= 0.228 af
Outflow = 2.84 cfs @ 12.14 hrs, Volume= 0.228 af, Atten= 8%, Lag= 2.3 min
Primary = 2.84 cfs @ 12.14 hrs, Volume= 0.228 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 67.40' @ 12.14 hrs Surf.Area= 333 sf Storage= 302 cf

Plug-Flow detention time= 2.6 min calculated for 0.228 af (100% of inflow)
Center-of-Mass det. time= 2.6 min (823.7 - 821.2)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,759 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	115	0	0	115
68.00	460	537	537	478
69.00	2,200	1,222	1,759	2,223

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**12.0" x 94.0' long Culvert** CMP, projecting, no headwall, Ke= 0.900 Outlet Invert= 62.75' S= 0.0346 '/' Cc= 0.900 n= 0.025 Corrugated metal

Primary OutFlow Max=2.84 cfs @ 12.14 hrs HW=67.40' TW=64.49' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 2.84 cfs @ 3.61 fps)

Pond 50P: 48" RCP at water line

Inflow Area = 9.877 ac, Inflow Depth > 4.08" for 25YR event
Inflow = 39.97 cfs @ 12.10 hrs, Volume= 3.360 af
Outflow = 39.45 cfs @ 12.12 hrs, Volume= 3.360 af, Atten= 1%, Lag= 1.0 min
Primary = 39.45 cfs @ 12.12 hrs, Volume= 3.360 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 40.05' @ 12.12 hrs Surf.Area= 2,094 sf Storage= 1,438 cf
Flood Elev= 51.00' Surf.Area= 16,761 sf Storage= 57,309 cf

Outlet Invert= 62.75' S= 0.0080 '/' Cc= 0.900
n= 0.012 Concrete pipe, finished

Primary OutFlow Max=21.85 cfs @ 12.04 hrs HW=65.05' TW=64.08' (Dynamic Tailwater)
↑—1=Culvert (Inlet Controls 21.85 cfs @ 5.93 fps)

Pond 23P: Treatment Wet Pond

[80] Warning: Exceeded Pond 22P by 0.33' @ 24.30 hrs (1.38 cfs 0.089 af)

Inflow Area =	6.061 ac,	Inflow Depth = 4.67"	for 25YR event	
Inflow =	29.75 cfs @	12.08 hrs, Volume=	2.356 af	
Outflow =	8.99 cfs @	12.40 hrs, Volume=	2.231 af,	Atten= 70%, Lag= 19.3 min
Primary =	8.99 cfs @	12.40 hrs, Volume=	2.231 af	
Secondary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Starting Elev= 62.00' Surf.Area= 10,124 sf Storage= 36,051 cf
Peak Elev= 64.79' @ 12.40 hrs Surf.Area= 17,547 sf Storage= 79,226 cf (43,176 cf above start)

Plug-Flow detention time= 539.9 min calculated for 1.404 af (60% of inflow)
Center-of-Mass det. time= 250.7 min (1,016.0 - 765.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	101,793 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	4,155	354.0	0	0	4,155
58.00	5,914	373.0	5,009	5,009	5,313
60.00	7,550	412.0	13,431	18,439	7,872
62.00	10,124	450.0	17,611	36,051	10,618
62.10	14,062	497.0	1,204	37,255	14,160
64.00	16,106	520.0	28,638	65,892	16,257
66.00	19,860	544.0	35,901	101,793	18,551

Device	Routing	Invert	Outlet Devices
#1	Primary	59.20'	**24.0" x 32.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 58.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	62.00'	**14.000 in/hr Exfiltration X 0.10 over Surface area above Invert** Excluded Surface area = 10,124 sf
#3	Device 1	63.25'	**1.17' x 1.25' Horiz. Orifice/Grate** Limited to weir flow C= 0.600
#4	Secondary	64.85'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Pond 21P: 36" RCP manhole outlet

Inflow Area = 7.045 ac, Inflow Depth > 4.27" for 25YR event
Inflow = 10.90 cfs @ 12.05 hrs, Volume= 2.505 af
Outflow = 10.90 cfs @ 12.05 hrs, Volume= 2.504 af, Atten= 0%, Lag= 0.3 min
Primary = 10.90 cfs @ 12.05 hrs, Volume= 2.504 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 42.84' @ 12.05 hrs Surf.Area= 605 sf Storage= 401 cf
Flood Elev= 44.00' Surf.Area= 1,770 sf Storage= 1,715 cf

Plug-Flow detention time=0.8 min calculated for 2.504 af (100% of inflow)
Center-of-Mass det. time=0.6 min (994.5 - 993.9)

Volume	Invert	Avail.Storage	Storage Description
#1	40.80'	4,391 cf	**Existing pond (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
40.80	50	0	0	50
42.00	140	109	109	149
44.00	1,770	1,605	1,715	1,790
45.00	3,700	2,676	4,391	3,728

Device	Routing	Invert	Outlet Devices
#1	Primary	36.30'	36.0" x 30.0' long Culvert RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 34.00' S= 0.0767 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets
#2	Device 1	40.80'	**12.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	42.60'	**60.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Primary OutFlow Max=10.90 cfs @ 12.05 hrs HW=42.84' TW=37.33' (Dynamic Tailwater)
↑—**1=Culvert** (Passes 10.90 cfs of 76.44 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 4.70 cfs @ 5.98 fps)
└—**3=Orifice/Grate** (Weir Controls 6.20 cfs @ 1.62 fps)

Pond 22P: Diversion Structure

Inflow Area = 4.568 ac, Inflow Depth = 5.09" for 25YR event
Inflow = 22.02 cfs @ 12.04 hrs, Volume= 1.939 af
Outflow = 22.02 cfs @ 12.04 hrs, Volume= 1.939 af, Atten= 0%, Lag= 0.0 min
Primary = 22.02 cfs @ 12.04 hrs, Volume= 1.939 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 65.26' @ 12.14 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	62.95'	**15.0" x 25.0' long Culvert X 3.00** RCP, groove end projecting, Ke= 0.200

Reach OUT 1: Wetland feeding stream

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	1.550 ac,	Inflow Depth = 3.73"	for 25YR event
Inflow =	6.54 cfs @	12.10 hrs, Volume=	0.482 af
Outflow =	6.54 cfs @	12.10 hrs, Volume=	0.482 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3

Reach OUT 2: Stream

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	22.353 ac,	Inflow Depth > 3.96"	for 25YR event
Inflow =	65.63 cfs @	12.16 hrs, Volume=	7.370 af
Outflow =	65.63 cfs @	12.16 hrs, Volume=	7.370 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3

Pond 20P: Pre-treatment Swale

Inflow Area =	4.568 ac,	Inflow Depth = 5.15"	for 25YR event
Inflow =	24.81 cfs @	12.08 hrs, Volume=	1.959 af
Outflow =	24.81 cfs @	12.08 hrs, Volume=	1.959 af, Atten= 0%, Lag= 0.0 min
Primary =	22.02 cfs @	12.04 hrs, Volume=	1.939 af
Secondary =	3.64 cfs @	12.09 hrs, Volume=	0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 66.11' @ 12.09 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**15.0" x 25.0' long Culvert X 3.00** RCP, groove end projecting, Ke= 0.200 Outlet Invert= 63.25' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished
#2	Secondary	66.00'	**40.0' long x 14.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

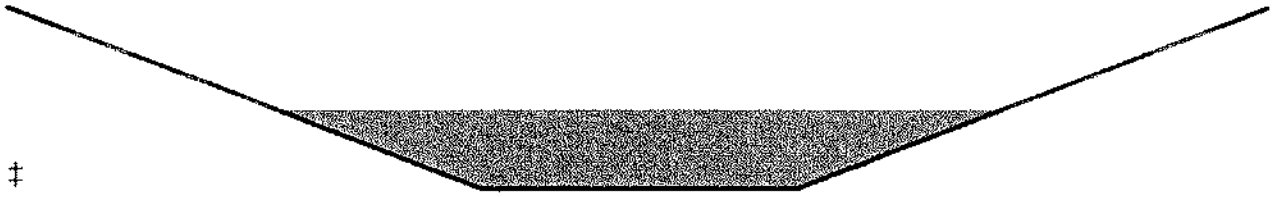
Primary OutFlow Max=21.96 cfs @ 12.04 hrs HW=66.03' TW=65.05' (Dynamic Tailwater)
↑—1=Culvert (Inlet Controls 21.96 cfs @ 5.96 fps)

Secondary OutFlow Max=3.60 cfs @ 12.09 hrs HW=66.11' TW=64.27' (Dynamic Tailwater)
↑—2=Broad-Crested Rectangular Weir(Weir Controls 3.60 cfs @ 0.86 fps)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 5.47 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.69 fps, Avg. Travel Time= 0.7 min

Peak Storage= 81 cf @ 12.14 hrs, Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 0.75', Capacity at Bank-Full= 32.42 cfs

2.00' x 0.75' deep channel, n= 0.040 Earth, cobble bottom, clean sides
Side Slope Z-value= 4.0 '/' Top Width= 8.00'
Length= 75.0' Slope= 0.1533 '/'
Inlet Invert= 65.50', Outlet Invert= 54.00'



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Reach CURB: curb flow model

This node used to find flow capacities for roadway to be entered into Tc determination

[43] Hint: Has no inflow (Outflow=Zero)

Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs, Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 0.50', Capacity at Bank-Full= 34.78 cfs

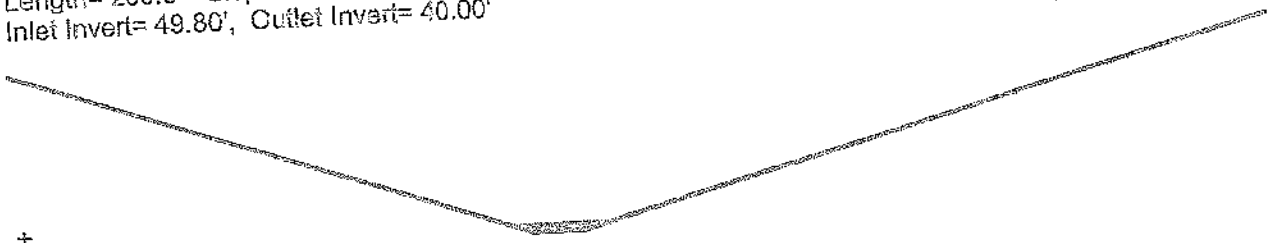
2.00' x 0.50' deep channel, n= 0.011
Side Slope Z-value= 48.0 0.0 '/' Top Width= 26.00'
Length= 243.0' Slope= 0.0080 '/'
Inlet Invert= 0.00', Outlet Invert= -1.94'

‡

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.65 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.87 fps, Avg. Travel Time= 2.3 min

Peak Storage= 1,254 cf @ 12.13 hrs, Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 14.00', Capacity at Bank-Full= 19,583.96 cfs

4.00' x 14.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 3.0 4.0 '/' Top Width= 102.00'
Length= 260.0' Slope= 0.0377 '/'
Inlet Invert= 49.80', Outlet Invert= 40.00'



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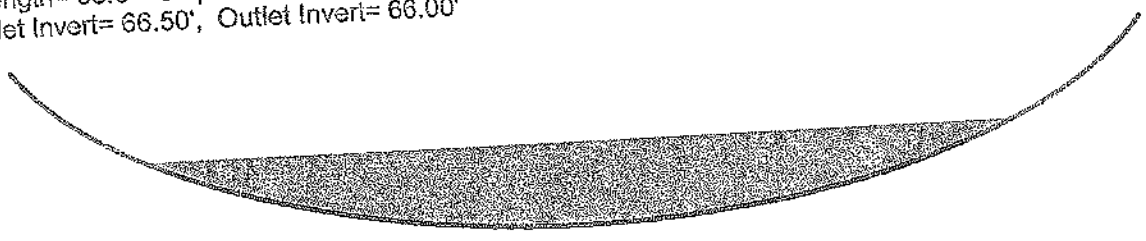
Reach 72R: Overflow adjacent to Riverside St

Inflow = 5.99 cfs @ 12.13 hrs, Volume= 0.075 af
Outflow = 5.96 cfs @ 12.13 hrs, Volume= 0.075 af, Atten= 1%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 1.88 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 2.2 min

Peak Storage= 216 cf @ 12.13 hrs, Average Depth at Peak Storage= 0.70'
Bank-Full Depth= 1.50', Capacity at Bank-Full= 30.70 cfs

10.00' x 1.50' deep Parabolic Channel, n= 0.040 Earth, cobble bottom, clean sides
Length= 68.0' Slope= 0.0074 '/'
Inlet Invert= 66.50', Outlet Invert= 66.00'



Reach 73R: Overflow adjacent to Bioretention fill

Inflow = 5.96 cfs @ 12.13 hrs, Volume= 0.075 af
Outflow = 5.95 cfs @ 12.14 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.2 min

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 20S: Paved area (majority of Runoff Area=4.568 ac 94.07% Impervious Runoff Depth=2.66"
Flow Length=870' Tc=5.6 min CN=97 Runoff=13.24 cfs 1.012 af

Subcatchment 22S: Area of Wet Pond Runoff Area=0.649 ac 15.87% Impervious Runoff Depth=1.13"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=0.85 cfs 0.061 af

Subcatchment 40S: Area of emergency Runoff Area=0.844 ac 0.00% Impervious Runoff Depth=1.19"
Flow Length=342' Tc=6.9 min CN=79 Runoff=1.11 cfs 0.084 af

Pond 20P: Pre-treatment Swale Peak Elev=64.71' Inflow=13.24 cfs 1.012 af
Primary=13.24 cfs 1.012 af Secondary=0.00 cfs 0.000 af Outflow=13.24 cfs 1.012 af

Pond 22P: Diversion Structure Peak Elev=64.18' Inflow=13.24 cfs 1.012 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=13.24 cfs 1.012 af

Pond 23P: Treatment Wet Pond Peak Elev=63.66' Storage=60,445 cf Inflow=15.06 cfs 1.157 af
Primary=4.22 cfs 0.922 af Secondary=0.00 cfs 0.000 af Outflow=4.22 cfs 0.922 af

Pond 40P: Culvert across emergency access Peak Elev=66.62' Storage=96 cf Inflow=1.11 cfs 0.084 af
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Outflow=1.09 cfs 0.084 af

Total Runoff Area = 6.061 ac Runoff Volume = 1.157 af Average Runoff Depth = 2.29"
27.40% Pervious = 1.661 ac 72.60% Impervious = 4.400 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 20S: Paved area (majority of Runoff Area=4.568 ac 94.07% Impervious Runoff Depth=5.15"
Flow Length=870' Tc=5.6 min CN=97 Runoff=24.81 cfs 1.959 af

Subcatchment 22S: Area of Wet Pond Runoff Area=0.649 ac 15.87% Impervious Runoff Depth=3.14"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=2.44 cfs 0.170 af

Subcatchment 40S: Area of emergency Runoff Area=0.844 ac 0.00% Impervious Runoff Depth=3.24"
Flow Length=342' Tc=6.9 min CN=79 Runoff=3.10 cfs 0.228 af

Pond 20P: Pre-treatment Swale Peak Elev=66.11' Inflow=24.81 cfs 1.959 af
Primary=21.77 cfs 1.938 af Secondary=3.75 cfs 0.020 af Outflow=24.81 cfs 1.959 af

Pond 22P: Diversion Structure Peak Elev=65.27' Inflow=21.77 cfs 1.938 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=21.77 cfs 1.938 af

Pond 23P: Treatment Wet Pond Peak Elev=64.82' Storage=79,640 cf Inflow=29.75 cfs 2.356 af
Primary=8.93 cfs 2.118 af Secondary=0.00 cfs 0.000 af Outflow=8.93 cfs 2.118 af

Pond 40P: Culvert across emergency access Peak Elev=67.40' Storage=302 cf Inflow=3.10 cfs 0.228 af
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Outflow=2.84 cfs 0.228 af

Total Runoff Area = 6.061 ac Runoff Volume = 2.356 af Average Runoff Depth = 4.67"
27.40% Pervious = 1.661 ac 72.60% Impervious = 4.400 ac

Summary for Subcatchment 40S: Area of emergency access

Runoff = 3.10 cfs @ 12.10 hrs, Volume= 0.228 af, Depth= 3.24"

Runoff by SCS TR-20 method; UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25YR Rainfall=5.50"

Area (ac)	CN	Description
0.028	89	Gravel roads, HSG C
0.816	79	50-75% Grass cover, Fair, HSG C
0.844	79	Weighted Average
0.844		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0350	0.18		**Sheet Flow, 40.1** Grass: Short n= 0.150 P2= 3.00"
0.6	50	0.0350	1.31		**Shallow Concentrated Flow, 40.2** Short Grass Pasture Kv= 7.0 fps
1.7	242	0.0250	2.37		**Shallow Concentrated Flow, 40.3** Grassed Waterway Kv= 15.0 fps
6.9	342	Total			

Summary for Pond 20P: Pre-treatment Swale

Inflow Area = 4.568 ac, 94.07% Impervious, Inflow Depth = 5.15" for 25YR event
Inflow = 24.81 cfs @ 12.08 hrs, Volume= 1.959 af
Outflow = 24.81 cfs @ 12.08 hrs, Volume= 1.959 af, Atten= 0%, Lag= 0.0 min
Primary = 21.77 cfs @ 12.05 hrs, Volume= 1.938 af
Secondary = 3.75 cfs @ 12.09 hrs, Volume= 0.020 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 66.11' @ 12.09 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**15.0" Round Culvert X 3.00** L= 25.0' RCP, groove end projecting, Ke= 0.200 Outlet Invert= 63.25' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished
#2	Secondary	66.00'	**40.0' long x 14.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Primary OutFlow Max=21.86 cfs @ 12.05 hrs HW=66.05' TW=65.07' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 21.86 cfs @ 5.94 fps)

Secondary OutFlow Max=3.71 cfs @ 12.09 hrs HW=66.11' TW=64.29' (Dynamic Tailwater)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 3.71 cfs @ 0.86 fps)

Device	Routing	Invert	Outlet Devices
#1	Primary	59.20'	**24.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 58.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	59.50'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	59.85'	**1.0" Vert. Orifice/Grate** C= 0.600
#4	Device 3	62.00'	**85.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#5	Device 1	63.25'	**14.0" x 15.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	64.85'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=8.93 cfs @ 12.41 hrs HW=64.82' (Free Discharge)
└**1=Culvert** (Passes 8.93 cfs of 32.50 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 11.06 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.69 fps)
  │ └**4=Broad-Crested Rectangular Weir** (Passes 0.06 cfs of 1,332.18 cfs potential flow)
  └**5=Orifice/Grate** (Orifice Controls 8.81 cfs @ 6.03 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=62.00' (Free Discharge)
└**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 40P: Culvert across emergency access

Inflow Area = 0.844 ac, 0.00% Impervious, Inflow Depth = 3.24" for 25YR event
Inflow = 3.10 cfs @ 12.10 hrs, Volume= 0.228 af
Outflow = 2.84 cfs @ 12.14 hrs, Volume= 0.228 af, Atten= 8%, Lag= 2.3 min
Primary = 2.84 cfs @ 12.14 hrs, Volume= 0.228 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 67.40' @ 12.14 hrs Surf.Area= 333 sf Storage= 302 cf

Plug-Flow detention time= 2.7 min calculated for 0.228 af (100% of inflow)
Center-of-Mass det. time= 2.6 min (823.8 - 821.2)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,759 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	115	0	0	115
68.00	460	537	537	478
69.00	2,200	1,222	1,759	2,223

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 20S: Paved area (majority of Runoff Area=4.568 ac 94.07% Impervious Runoff Depth=6.34"
Flow Length=870' Tc=5.6 min CN=97 Runoff=30.32 cfs 2.414 af

Subcatchment 22S: Area of Wet Pond Runoff Area=0.649 ac 15.87% Impervious Runoff Depth=4.20"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=3.26 cfs 0.227 af

Subcatchment 40S: Area of emergency Runoff Area=0.844 ac 0.00% Impervious Runoff Depth=4.31"
Flow Length=342' Tc=6.9 min CN=79 Runoff=4.11 cfs 0.303 af

Pond 20P: Pre-treatment Swale Peak Elev=66.22' Inflow=30.32 cfs 2.414 af
Primary=21.14 cfs 2.318 af Secondary=10.56 cfs 0.097 af Outflow=30.32 cfs 2.414 af

Pond 22P: Diversion Structure Peak Elev=65.53' Inflow=21.14 cfs 2.318 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=21.14 cfs 2.318 af

Pond 23P: Treatment Wet Pond Peak Elev=65.12' Storage=85,085 cf Inflow=36.62 cfs 2.945 af
Primary=9.75 cfs 2.570 af Secondary=5.32 cfs 0.135 af Outflow=15.07 cfs 2.705 af

Pond 40P: Culvert across emergency access Peak Elev=68.10' Storage=591 cf Inflow=4.11 cfs 0.303 af
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Outflow=3.13 cfs 0.303 af

Total Runoff Area = 6.061 ac Runoff Volume = 2.945 af Average Runoff Depth = 5.83"
27.40% Pervious = 1.661 ac 72.60% Impervious = 4.400 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10S: North & City Parcel Runoff Area=2.646 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=637' Tc=42.2 min CN=83 Runoff=2.14 cfs 0.319 af

Subcatchment20S: Paved area (majority Runoff Area=111,012 sf 85.69% Impervious Runoff Depth=2.45"
Flow Length=870' Tc=5.6 min CN=95 Runoff=7.05 cfs 0.520 af

Subcatchment21S: Area draining to "shelf" Runoff Area=0.984 ac 0.00% Impervious Runoff Depth=1.25"
Flow Length=55' Tc=2.0 min CN=80 Runoff=1.64 cfs 0.103 af

Subcatchment22S: Area of Wet Pond Runoff Area=0.649 ac 15.87% Impervious Runoff Depth=1.13"
Flow Length=32' Slope=0.0100 '/' Tc=5.4 min CN=78 Runoff=0.85 cfs 0.061 af

Subcatchment30S: Western portion of site Runoff Area=5.431 ac 17.60% Impervious Runoff Depth=1.25"
Flow Length=1,066' Tc=11.5 min CN=80 Runoff=6.51 cfs 0.566 af

Subcatchment50S: South Runoff Area=4.222 ac 31.50% Impervious Runoff Depth=1.59"
Flow Length=440' Tc=5.4 min CN=85 Runoff=8.04 cfs 0.559 af

Subcatchment51S: Entrance/parking area Runoff Area=1.021 ac 85.99% Impervious Runoff Depth=2.45"
Flow Length=319' Tc=2.1 min CN=95 Runoff=3.20 cfs 0.208 af

Subcatchment52S: Area of entrance Runoff Area=0.080 ac 93.75% Impervious Runoff Depth=2.66"
Flow Length=190' Tc=1.5 min CN=97 Runoff=0.27 cfs 0.018 af

Subcatchment53S: Area of Water District Runoff Area=0.463 ac 0.00% Impervious Runoff Depth=1.07"
Flow Length=140' Tc=13.4 min CN=77 Runoff=0.44 cfs 0.041 af

Subcatchment54S: Area of entrance Runoff Area=0.200 ac 95.00% Impervious Runoff Depth=2.66"
Flow Length=190' Tc=1.6 min CN=97 Runoff=0.67 cfs 0.044 af

Subcatchment60S: Lucas Tree Site Runoff Area=2.150 ac 29.86% Impervious Runoff Depth=2.07"
Flow Length=285' Slope=0.0200 '/' Tc=9.8 min CN=91 Runoff=4.54 cfs 0.371 af

Subcatchment70aS: Riverside Street Runoff Area=0.232 ac 69.83% Impervious Runoff Depth=2.16"
Flow Length=263' Slope=0.0100 '/' Tc=5.2 min CN=92 Runoff=0.59 cfs 0.042 af

Subcatchment70S: Riverside Street Runoff Area=0.705 ac 53.05% Impervious Runoff Depth=2.16"
Flow Length=287' Slope=0.0100 '/' Tc=8.5 min CN=92 Runoff=1.61 cfs 0.127 af

Subcatchment80S: Riverside Street Runoff Area=0.387 ac 20.67% Impervious Runoff Depth=1.45"
Flow Length=172' Tc=7.5 min CN=83 Runoff=0.62 cfs 0.047 af

Subcatchment90S: Riverside Street Runoff Area=0.417 ac 12.23% Impervious Runoff Depth=1.45"
Flow Length=311' Tc=8.2 min CN=83 Runoff=0.65 cfs 0.050 af

Reach 20R: From 36" RCP to stream Avg. Depth=0.11' Max Vel=3.04 fps Inflow=1.77 cfs 0.578 af
n=0.030 L=86.0' S=0.0756 '/' Capacity=77.92 cfs Outflow=1.76 cfs 0.578 af

Reach 50A: Stream Avg. Depth=0.58' Max Vel=2.42 fps Inflow=16.56 cfs 1.462 af
n=0.040 L=484.0' S=0.0103 '/' Capacity=137.18 cfs Outflow=15.69 cfs 1.462 af

Reach 50B: Stream Avg. Depth=0.56' Max Vel=2.60 fps Inflow=16.62 cfs 2.040 af
n=0.040 L=366.0' S=0.0123 '/' Capacity=149.66 cfs Outflow=16.30 cfs 2.037 af

Reach 51A: EXISTING WETLAND/STREAM Avg. Depth=0.20' Max Vel=1.03 fps Inflow=2.14 cfs 0.319 af
n=0.100 L=277.0' S=0.0433 '/' Capacity=956.10 cfs Outflow=2.12 cfs 0.319 af

Reach 51B: EXISTING STREAM Avg. Depth=0.72' Max Vel=2.73 fps Inflow=22.75 cfs 2.603 af
n=0.040 L=295.0' S=0.0102 '/' Capacity=507.63 cfs Outflow=22.47 cfs 2.600 af

Reach 60R: Flow through 8S Avg. Depth=0.21' Max Vel=1.49 fps Inflow=3.63 cfs 0.076 af
n=0.030 L=185.0' S=0.0122 '/' Capacity=21.87 cfs Outflow=3.50 cfs 0.076 af

Reach 70R: ExistSwale Avg. Depth=0.47' Max Vel=3.67 fps Inflow=9.88 cfs 0.903 af
n=0.040 L=260.0' S=0.0377 '/' Capacity=19,583.96 cfs Outflow=9.81 cfs 0.903 af

Reach 72R: Overflow adjacent to Riverside St Avg. Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af
n=0.040 L=68.0' S=0.0074 '/' Capacity=30.70 cfs Outflow=0.00 cfs 0.000 af

Reach 73R: Overflow adjacent to Avg. Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af
n=0.040 L=75.0' S=0.1533 '/' Capacity=32.42 cfs Outflow=0.00 cfs 0.000 af

Reach CURB: curb flow model Avg. Depth=0.00' Max Vel=0.00 fps
n=0.011 L=243.0' S=0.0080 '/' Capacity=34.78 cfs Outflow=0.00 cfs 0.000 af

Reach OUT 1: Wetland feeding stream Inflow=2.14 cfs 0.319 af
Outflow=2.14 cfs 0.319 af

Reach OUT 2: Stream Inflow=22.75 cfs 2.603 af
Outflow=22.75 cfs 2.603 af

Reach OUT 3: STREAM TO RIVER Inflow=23.17 cfs 2.919 af
Outflow=23.17 cfs 2.919 af

Pond 20P: Pre-treatment Swale Peak Elev=64.27' Storage=2,068 cf Inflow=7.05 cfs 0.520 af
Primary=6.74 cfs 0.495 af Secondary=0.00 cfs 0.000 af Outflow=6.74 cfs 0.495 af

Pond 21P: 36" RCP manhole outlet Peak Elev=41.52' Storage=53 cf Inflow=1.78 cfs 0.578 af
Outflow=1.77 cfs 0.578 af

Pond 22P: Diversion Structure Peak Elev=63.75' Inflow=6.74 cfs 0.495 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=6.74 cfs 0.495 af

Pond 23P: Treatment Wet Pond Peak Elev=63.20' Storage=53,388 cf Inflow=7.58 cfs 0.556 af
Primary=0.17 cfs 0.476 af Secondary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.476 af

Pond 40P: Culvert across emergency access Peak Elev=0.00' Storage=0 cf
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Primary=0.00 cfs 0.000 af

Reach 50A: Stream Avg. Depth=0.87' Max Vel=3.07 fps Inflow=32.27 cfs 2.738 af
n=0.040 L=484.0' S=0.0103 '/' Capacity=137.18 cfs Outflow=31.27 cfs 2.738 af

Reach 50B: Stream Avg. Depth=0.85' Max Vel=3.31 fps Inflow=33.23 cfs 3.820 af
n=0.040 L=366.0' S=0.0123 '/' Capacity=149.66 cfs Outflow=32.82 cfs 3.818 af

Reach 51A: EXISTING WETLAND/STREAM Avg. Depth=0.30' Max Vel=1.33 fps Inflow=4.31 cfs 0.640 af
n=0.100 L=277.0' S=0.0433 '/' Capacity=956.10 cfs Outflow=4.29 cfs 0.640 af

Reach 51B: EXISTING STREAM Avg. Depth=1.09' Max Vel=3.48 fps Inflow=46.80 cfs 5.009 af
n=0.040 L=295.0' S=0.0102 '/' Capacity=507.63 cfs Outflow=46.43 cfs 5.007 af

Reach 60R: Flow through 8S Avg. Depth=0.29' Max Vel=1.84 fps Inflow=7.06 cfs 0.208 af
n=0.030 L=185.0' S=0.0122 '/' Capacity=21.87 cfs Outflow=6.93 cfs 0.208 af

Reach 70R: ExistSwale Avg. Depth=0.66' Max Vel=4.41 fps Inflow=18.63 cfs 1.650 af
n=0.040 L=260.0' S=0.0377 '/' Capacity=19,583.96 cfs Outflow=18.53 cfs 1.650 af

Reach 72R: Overflow adjacent to Riverside St Avg. Depth=0.52' Max Vel=1.55 fps Inflow=3.21 cfs 0.031 af
n=0.040 L=68.0' S=0.0074 '/' Capacity=30.70 cfs Outflow=3.17 cfs 0.031 af

Reach 73R: Overflow adjacent to Avg. Depth=0.24' Max Vel=4.57 fps Inflow=3.17 cfs 0.031 af
n=0.040 L=75.0' S=0.1533 '/' Capacity=32.42 cfs Outflow=3.17 cfs 0.031 af

Reach CURB: curb flow model Avg. Depth=0.00' Max Vel=0.00 fps
n=0.011 L=243.0' S=0.0080 '/' Capacity=34.78 cfs Outflow=0.00 cfs 0.000 af

Reach OUT 1: Wetland feeding stream Inflow=4.31 cfs 0.640 af
Outflow=4.31 cfs 0.640 af

Reach OUT 2: Stream Inflow=46.80 cfs 5.009 af
Outflow=46.80 cfs 5.009 af

Reach OUT 3: STREAM TO RIVER Inflow=47.99 cfs 5.647 af
Outflow=47.99 cfs 5.647 af

Pond 20P: Pre-treatment Swale Peak Elev=64.55' Storage=2,449 cf Inflow=11.52 cfs 0.876 af
Primary=11.07 cfs 0.850 af Secondary=0.00 cfs 0.000 af Outflow=11.07 cfs 0.850 af

Pond 21P: 36" RCP manhole outlet Peak Elev=42.15' Storage=136 cf Inflow=3.67 cfs 1.083 af
Outflow=3.50 cfs 1.083 af

Pond 22P: Diversion Structure Peak Elev=64.04' Inflow=11.07 cfs 0.850 af
15.0" Round Culvert x 3.00 n=0.012 L=25.0' S=0.0080 '/' Outflow=11.07 cfs 0.850 af

Pond 23P: Treatment Wet Pond Peak Elev=63.53' Storage=58,504 cf Inflow=12.93 cfs 0.983 af
Primary=2.57 cfs 0.867 af Secondary=0.00 cfs 0.000 af Outflow=2.57 cfs 0.867 af

Pond 40P: Culvert across emergency access Peak Elev=0.00' Storage=0 cf
12.0" Round Culvert n=0.025 L=94.0' S=0.0346 '/' Primary=0.00 cfs 0.000 af

1. Since you will be accepting automobiles, could you explain the procedure of how engine oil, lubricants, antifreeze will be processed at the facility

2. How do you manage

Prolerized New England
City of Portland Review Comments

TO: City of Portland Planning Board **FROM:** Carl V. Beal, P.E. **DATE:** June 17, 2008

CC: Dave Murphy, Jeanne Schmeichel, Hope Jacobsen, file

SUBJECT: Response to Richard Knowland, Senior Planner

PROJECT: RE: Prolerized New England Site Plan; 568 Riverside Street (06-769-00)

Following please find CIVIL CONSULTANTS' responses to the memorandum from Richard Knowland of City of Portland dated March 7, 2008. CIVIL CONSULTANTS' 3/20/08 responses are in italics and 06/17/08 responses are in red.

The purpose of this letter is to summarize staff review comments on the proposed Prolerized New England Company LLC PNEC metal recycling facility in the vicinity of 568 Riverside Street. These comments are intended to be as thorough and comprehensive as possible in preparation for the July 8th meeting. Should other staff comments arise, I will forward them to you accordingly.

COMMENT		RESPONSE
1.	Lighting . . . The photometric plan is difficult to read. Value numbers are illegible. Need to submit catalog cuts of the light fixtures. Indicate mounting height. Light fixtures should have a cut-off feature.	*Electrical Design Consultants will revise the plan so the numbers are more legible. Details for the light fixtures will be added. Changes have been made and drawings EP & ES are included in the plan set.*
2.	Application seems to indicate that only vendors will be delivering scrap metal to the site. Does that mean that scrap metal will not be accepted from the general public? Could someone drive (tow) their junk car to your site or would they need to go to a vendor?	*The PNEC facility will accept scrap metal from the general public as well as from vendors.*

management of the hazardous [illegible]

√ PWD comments

√ will crane be [illegible] position when not in use

lighting

traffic report - [illegible] comments

[illegible] plan notes

survey is it in the 11"x17"

2b "each tree location and size has been surveyed and a [illegible] will be provided for city review

building elevation

[illegible] streetscape rendering never shown to us

fluids

		Prolerized New England City of Portland Review Comments
6.	Portland Water District easement. It will need to be a condition of approval unless it is finalized.	*Yes, the easement is intended to be a condition of approval. There is no need for the easement to be finalized until the Site Plan is approved by the City. Portland Water District has indicated its general agreement to the idea of a sewer easement for the PNEC property.*
7.	How many cranes will be used on the site and what height will they be?	*Two cranes are anticipated at the site. The height will be 45 feet when fully extended.*

13. What type of equipment will be located within the facility? Please specify, cranes; car crusher; front end loader; tractor trailer; etc.	*A Baler and Crusher will be located within the main building. Outside equipment will a front end loader, a crane with grapple, a crane with magnet, a mobile baler and mobile shear.*
14. Location of nearest fire hydrant along the street.	*Directly opposite the new entrance, just North of Manual Drive.*
15. Incorporate site plan notes on the plan.	*OK. We will add any and all notes that the City wishes to include on the final plans.*
16. Submit building elevations indicating exterior materials and height of all buildings proposed on the site.	*The building design has not been completed. However, we anticipate that this industrial building will have metal siding and metal roof panels.*
17. It would be helpful if the Exhibits "table of contents" was moved to the first page before Exhibit 1.	*It has been moved in the 13 new binders.*
18. Based on the project narrative it appears that an auto parts business is not part of this proposal for this site. Could you clarify this?	*The auto parts business is not part of the business plan for PNEC. This site is for recycling ferrous and non-ferrous metals.*
19. Was a stamped land survey submitted?	*Yes, the 2 drawings prepared by William G. Scott PLS 2239, dated December 16, 2005.*

Prolerized New England
City of Portland Review Comments

25. Comments from Marge Schmuckal, Zoning Administrator, are summarized below.	
• The "nonferrous storage building" up front has 25 ft. side setbacks instead of the required 35 ft. side setbacks. All front and rear setbacks are being met.	*The storage building design will be revised to provide 35-foot setbacks on both sides. This change will appear on future drawing submittals. Moved*
• There are two site plans that do not match: ES and C2. I would want a clarification as to which plan is correct. Most of the given plans match C2 for building locations and parking. ES has a different location for the flat auto storage building and shows 20 parking spaces instead of 19.	*The Progress Print of ES submitted was not correct. It has been revised and resubmitted with this response. ES & EP have been revised and are within the plan set submitted herein.*
• Applicant has not addressed the I-H noise requirements.	*A Noise Study prepared by Epsilon Associates was provided in Exhibit 19. It addresses both State and City of Portland requirements.*
• Building elevations need to be submitted.	*Building Elevations are provided in Exhibit 16*
26. I have met with Jeff Tarling (City Arborist). A number of his comments are summarized on the attached marked up site plan. Other comments are shown below.	
• There are sections of the site plan where the planting material is not clearly labeled.	*Woodburn & Company will revise their Landscape Plans L1 & L2 to provide labels. See L1&L2*
• There is some significant mature vegetation proposed to be protected near Riverside Street. Please label the size and species of trees you intend to save.	*Existing mature vegetation along the PNEC/PWD boundary is proposed to remain. In addition a portion of the mature stand of trees West of PWD shall remain. Each tree location and size has been surveyed and a sketch will be provided for City review.*
•	

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• The "nonferrous storage building" up front has 25 ft. side setbacks instead of the required 35 ft. side setbacks. All front and rear setbacks are being met.	*The storage building design will be revised to provide 35-foot setbacks on both sides. This change will appear on future drawing submittals. Moved*
• There are two site plans that do not match: ES and C2. I would want a clarification as to which plan is correct. Most of the given plans match C2 for building locations and parking. ES has a different location for the flat auto storage building and shows 20 parking spaces instead of 19.	*The Progress Print of ES submitted was not correct. It has been revised and resubmitted with this response. ES & EP have been revised and are within the plan set submitted herein.*
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• There is some significant mature vegetation proposed to be protected near Riverside Street. Please label the size and species of trees you intend to save.	*Existing mature vegetation along the PNEC/PWD boundary is proposed to remain. In addition a portion of the mature stand of trees West of PWD shall remain. Each tree location and size has been surveyed and a sketch will be provided for City review.*
• One of the streetscape sketches ("proposed sketch") prepared by Woodburn & Company shows a view from Riverside Street (Winter Green Solariums side). The sketch shows a number of evergreens in the vicinity of the bio-rention pond providing a significant screen for the site. But in reviewing the site plan there appear to be fewer of these trees shown on the plan.	*This rendering was prepared prior to the addition of the Bio-retention pond. Woodburn & Company is revising the rendering to reflect the change and it will be presented at the planning board workshop.*
27. Fire Dept comments from Capt. Greg Cass.	
• Please provide details for the storage use and handling of all flammable and combustible liquids. NFPA 30 is the code adopted by the State and City. Compliance for the tank installation will be required.	*We will provide additional details when the Building Design is completed and submitted with a Building Permit Application.*
• Provide details for the storage and use of all flammable gasses used for cutting and or welding operations.	*We will provide additional details when the Building Design is completed and submitted with a Building Permit Application.*
• Provide details for fire dept. access through-out the site, after hours access and access to the emergency gate.	*We will provide additional details when the Building Design is completed and later in the Site Plan approval process.*
• Please complete the Fire Dept. Checklist. Please provide details of all proposed fire protection	*We will provide additional details when the Building Design is completed and submitted with a Building*

• Is the proposed emergency access on the city property passable? Does it need to be improved? Who will maintain it?	*If the emergency access is not required, it can be eliminated.*
• The fire hydrant behind the building may need to be relocated to a more central location.	*Ok. Wherever the City would prefer it to be. The new hydrant has been moved to the landscaped island in front of the new building, just beyond the gate.*
• Provide info on how the cars are stripped.	*Cars would be prepared (any fluids removed, mercury switches removed, batteries, gas, etc, in accordance with all applicable regulations) then they would be flattened in the building or directly outside on concrete pavement. . The flattened cars will be trucked to Everett for processing.*
28. The wetlands report recommends researching previous NRPA permits on the property. Has that been done? Could you clarify where you will be filling wetlands?	*We are currently working with the DEP to determine if a NRPA permit exists for the property. DEP has found no NRPA permits for the property. No prior permits were found for this property.*
29. The report indicates that 0.22 acre of impervious surface of the site is not receiving water quality treatment. Where is this located on the site and why is it not being treated?	*Please refer to drawings D2 and D3 in the Stormwater Management Study in Exhibit 18. The area not treated is the portion of the entrance driveway immediately next to Riverside Street. This area at the intersection of the driveway and Riverside Street will not drain into the Bio-Retention Basin. However, runoff will be treated within the 2 catch basin structures via a "Snout" trap and a "SmartSponge Ultra-Urban Filter" to capture sediment, oils, etc.*
30. I've been to the site several times but can't recall the condition of the steep slopes along the perimeter of the site. For the most part it appeared vegetated and stable but there may be some gaps given it was filled land. Is it your intention to loam, seed and stabilize the slope where necessary?	*Any disturbed portions of the existing slope will be stabilized with mulch and seed. New pavement and curbing will direct all surface water to the treatment system and eliminate the current surface and groundwater sources of the slope erosion.*
31. Do you have a service capacity letter from the Portland Water District?	*PWD is providing a letter. Letter submitted to City previously.*
32. We haven't reviewed information relating to signage yet. We will review prior to the workshop.	*The signage is typical to what exists at other PNEC facilities. Final information will be submitted to the City for a Sign Permit.*

Prolerized New England
City of Portland Review Comments

Following please find CIVIL CONSULTANTS' responses to the memorandum from consultant Tom Errico for City of Portland dated March 10, 2008. CIVIL CONSULTANTS' responses are in italics and 06/17/08 responses are in red.

COMMENT	RESPONSE
1. Vehicle queuing at the entry is a significant concern and the applicant needs to provide detailed documentation on the expected queuing (worst-case scenario). Queuing currently occurs at the Bayside facility and therefore would be expected at the Riverside Street site. What is the breakdown of vehicle types entering the facility? The plan illustrates one entry lane for smaller trucks. Vehicle spillback onto Riverside Street must be avoided.	*Please refer to the attached response memo from Gorrill-Palmer Consulting Engineers, Inc. An updated May 6th response was submitted by GP to Wilber-Smith and a copy is included in this submittal.*
2. The driveway curb cut on Riverside Street is approximately 60 feet wide (inclusive of the center island) and therefore does not meet City standards. I recognize the importance of maximizing the vehicle queuing space, but would prefer that the curb line width be narrower than what is proposed.	*Please refer to the attached response memo from Gorrill-Palmer Consulting Engineers, Inc. An updated May 6th response was submitted by GP to Wilber-Smith and a copy is included in this submittal.*
3. The applicant shall provide an explanation on proposed internal site operations. For example, why are two exit lanes provided? How will employees access the site parking spaces if trucks are queued at the driveway entrance? What is the process for smaller delivery vehicles?	*Only one exit lane is provided from the facility. The southern lane adjacent to it is intended to be a parking lane for trucks to wait for paperwork following being weighed on the scale but prior to departure.* *Employees will turn left after traveling past the island into the parking lot. The facility will inform vendors that the left lane is to remain open.* *All vehicles with be weighed either on the large scales or via a portable scale in the building.*
4. The parking aisle, between the parking spaces and the exit lane is 28 feet. The City standard is 24 feet and therefore the applicant should provide a response as to why the extra width is necessary.	*The extra width is provided to allow trucks and cars to maneuver in the parking area. If this is a problem, the painted island can be made wider.*

8. The applicant should plan on making financial contributions towards future transportation improvements at the Riverside Street/Warren Avenue intersection.	*Please refer to the attached response memo from Gorrill-Palmer Consulting Engineers, Inc. PNEC is willing to contribute towards future improvements in proportion to any net increase in traffic it creates. An updated May 6th response was submitted by GP to Wilbur-Smith and a copy is included in this submittal.*

Following please find CIVIL CONSULTANTS' responses to the memorandum from Woodard & Curran for City of Portland. CIVIL CONSULTANTS' responses are in italics and 06/17/08 responses are in red.

COMMENT	RESPONSE
1. A demolition plan should be provided, as the existing plan indicates buildings, piping, gravel driveways, and other items that are not included on the proposed site plan.	*The amount of demolition is minor compared to the proposed project development. PNEC will provide a demolition plan if required following the Planning Board workshop.*
2. All catch basins should include casco traps. A separate detail should be included, and the location of the installed	*Casco Traps will be added to the 2 catch basins at the entrance. A detail will be added*

11. Snow storage locations will need to be reevaluated to eliminate runoff onto adjacent property.	*The snow storage areas inside the fence all drain to the treatment system.*
12. More information should be provided for the emergency access driveway to Riverside Street located on the eastern side of the property.	*The access can be eliminated if the City does not think that it is required.*
13. The catch basin located within the driveway entrance will need to be moved.	*Why? A new grate can be provided.*
14. The applicant will be required to construct a 5 foot bituminous sidewalk with an 8 foot esplanade. A detail will need to be provided.	*We are requesting a waiver of the sidewalk requirement.*

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Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
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Gray, ME 04039

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May 14, 2008

Mr. Rick Knowland
City of Portland
389 Congress Street
Portland, ME 04101

COPY

RE: Response to Comments by Tom Errico
Schnitzer Steel – Riverside Street – Portland, Maine

Dear Rick:

Gorrill-Palmer Consulting Engineers, Inc. is pleased to respond to the review comments made by Tom Errico of Wilbur-Smith Associates dated April 14, 2008 regarding the above referenced project. For ease of review, each comment has been repeated below followed by our response.

Comment 1 – Vehicle queuing at the entry is a significant concern and the applicant needs to provide detailed documentation on the expected queuing (worst-case scenario). Queuing currently occurs at the Bayside facility and therefore would be expected at the Riverside Street site. What is the breakdown of vehicle types entering the facility? The plan illustrates one entry lane for smaller trucks. Vehicle spillback onto Riverside Street must be avoided.

Status - The applicant needs to provide information that details why significant vehicle queuing occurs at the existing Bayside site and how this condition will be remedied at the Riverside Street site. The City has witnessed backups onto Franklin Arterial and needs definitive data that will guarantee backups will not occur. One visual assessment at the existing Bayside site is not sufficient information for the City to approve the vehicle storage capacity.

GP Response – Our office conducted visual observations on the mornings of May 1, 2, and 5, 2008 from approximately 6:50 AM to 7:15 AM, the "peak period" when the rate of vehicle arrival tends to be the highest and vehicles are queuing waiting for the facility to open. The greatest number of vehicles observed queued outside the facility was eight, which occurred on Friday, May 2.

What should be noted from the observations was that the majority of the trucks were not the largest WB-style (tractor trailer) vehicles. Of the 27 vehicles observed, only four were WB-sized trucks, and only one of these may have been comparable to the largest WB-62 and WB-67 design vehicles.

Based on this information, even if it was assumed that peak queuing was doubled to 16 vehicles, and four vehicles were WB-sized trucks (as opposed to the current peak of two), there is sufficient queuing space for trucks in the proposed design. It should also be noted that with more entry lanes, the facility will be able to process each vehicle more efficiently, which may in fact lead to a decrease in queuing.

We also obtained data from the Applicant relative to seasonal variations, which shows that May is one of the three peak months of the year. More discussion on this matter is provided in our response to Comment 7.

***Comment 2** – The driveway curb cut on Riverside Street is approximately 60 feet wide (inclusive of the center island) and therefore does not meet City standards. I recognize the importance of maximizing the vehicle queuing space, but would prefer that the curb line width be narrower than what is proposed.*

Status: I continue to review this with other City staff.

GP Response – Given the industrial nature of Riverside Street, and the need cited by City reviews to accommodate all queued trucks on-site, it remains the opinion of our office that the design width is necessary and acceptable, especially as ingress and egress are to be separated by a wide raised island.

Comment 3 – The applicant shall provide an explanation on proposed internal site operations. For example, why are two exit lanes provided? How will employees access the site parking spaces if trucks are queued at the driveway entrance? What is the process for smaller delivery vehicles?

Status: At this time I have no further comment. I continue to review on-site circulation and may have future comments.

GP Response – This comment will be addressed by Civil Consultants under separate cover.

***Comment 4** - The parking aisle, between the parking spaces and the exit lane is 28 feet. The City standard is 24 feet and therefore the applicant should provide a response as to why the extra width is necessary.*

Status: A waiver from the City standard is required. The applicant should clearly document the pros and cons of providing four additional feet of width. The response provided in the March 20, 2008 submittal is not sufficient.

GP Response - This comment will be addressed by Civil Consultants under separate cover.

Comment 5 – The applicant should provide commentary on the proposed driveway and its ability to meet City access management standards.

Status: The City standard for driveway separation is not met and the project will need a design standard waiver. The applicant should provide documentation that justifies a waiver.

GP Response – Based on Section III, Traffic Design Standards and Guidelines, 2. A. (e) (3) for the City of Portland: This section requires driveway separation (distance from the driveway to other driveways) of 150 feet when the arterial/collector roadway has a posted speed of 35 mph.

Along the west side of Riverside Street, the driveway does satisfy separation standards with the driveway to the south, which has a separation of approximately 230 feet. The driveway falls below the separation standard with the driveway to the north, a separation of just under 70 feet. However, this driveway is to a phone facility sub station, and typically receives only several vehicles per month. As such, it is our opinion that the driveway location as proposed is acceptable.

As for the issue with separation and alignment with driveways along the east side of the roadway, this matter was addressed in our letter prepared for the Applicant on October 2, 2007 and submitted to the City. Driveway volumes are low and conflicts are not expected to be a concern. The proposed driveway cannot meet separation standards with those across the street, as none of the driveways on the east side of Riverside Street near the project site meet current driveway separation standards.

Comment 6 – The applicant should verify that all proposed landscaping will not obstruct sight distance for vehicles exiting the proposed driveway.

Status: No further comment.

GP Response – No comment necessary.

Comment 7 – The traffic study uses data from August 2005 for estimating traffic levels from the project. The applicant should provide documentation on seasonal/yearly variation and why the August data is most appropriate.

Status: The applicant shall submit documentation that supports conclusions for seasonal/yearly variation.

GP Response – Enclosed with this letter is the number of trucks per day by month from January 2005 through April 2008. Based on this information, the peak month of the year is April (90 trucks per day), closely followed by May and June (85 trucks per day). If the observed vehicles identified in May from our observations were increased by six percent to represent May volumes, then another twenty percent to represent the increase forecast at the new facility, this is still far less than the determination made in the response to Comment 1 that a doubling of activity could be accommodated within the proposed queuing area.

***Comment 8** – The applicant should plan on making a financial contribution towards future transportation improvements at the Riverside Street/Warren Avenue intersection.*

Status: City staff will provide the contribution amount in the future.

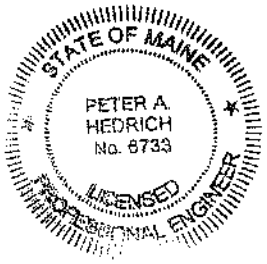
GP Response – No comment necessary.

Gorrill-Palmer Consulting Engineers, Inc. appreciates the opportunity to respond to these comments and looks forward to your review of our responses. Should you have any questions or require any additional information, please feel free to contact me.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

Peter A. Hedrich, P.E., PTOE
Vice-President, Transportation



Enclosure

CC: Tom Errico, Wilbur-Smith Associates
Carl Beal, Civil Consultants

PAH/jjb/JN1779/C&R_RKnowland/05-14-08

SCHNITZER STEEL INDUSTRIES, INC.
69 Rover Street P.O. Box 490905 Everett, Massachusetts 02149
Phone: (617) 389-8300 Fax: (617) 389-8030

Portland, ME Facility

	Inbound Trucks per Day 2005	Inbound Trucks per Day 2006	Inbound Trucks per Day 2007	Inbound Trucks per Day 2008	Inbound Trucks per Day Average
Jan	43	48	67	53	53
Feb	36	60	57	45	50
Mar	39	79	70	61	62
Apr	75	92	78	113	90
May	81	84	91		85
Jun	72	97	85		85
Jul	49	80	82		70
Aug	57	93	78		76
Sep	68	94	72		78
Oct	63	94	79		79
Nov	64	86	76		75
Dec	50	82	44		59
Average	58	82	73	68	70

Outbound Transfer Loads per Day: Average 8 to 12

GORRILL-PALMER
CONSULTING ENGINEERS, INC.
P.O. Box 1237
GRAY, MAINE 04039
(207) 657-6910
FAX (207) 657-6912

JOB 1779
SHEET NO 1 OF 1
CALCULATED BY PDO DATE 5/5/2008
CHECKED BY DATE
SCALE N/A

Traffic count at Schnitzer Metal located on Somerset Street in Portland, Maine

5/1/2008 - Thursday

Veh ID	Veh Type	Arrive	Enter	Exit
A	3-T	6:55*	6:59	7:05
B	6-RO	6:55*	6:59	7:06
C	5-FB	6:55*	7:05	
D	10	6:55*		
E	3	6:56		
F	5-FB	6:58	7:10	
G	3-T	7:01		
H	10	7:06		
I	3-DB	7:08		

5/2/2008 - Friday

Veh ID	Veh Type	Arrive	Enter	Exit	
A	7	6:50*			
B	7-RO	6:50*			
C	5	6:50*		6:53	Vehicle left, did not enter site
D	2	6:50*	7:04		
E	5-FB	6:50*			
F	5-RO	6:50*			
G	5	6:50*	6:58		
H	3	6:50*	6:58		
I	2	6:55			

5/5/2008 - Monday

Veh ID	Veh Type	Arrive	Enter	Exit
A	2-T	6:51*	6:52	7:10
B	10	6:51*		
C	9	6:51*	6:55	
D	5-FB	6:51*	6:59	7:07
E	3-DB	6:58	7:08	
F	2	7:02		
G	2-T	7:02		
H	5-FB	7:04		
I	2-DB	7:11		

Notes:
1. Vehicle type is based on the FWHA classification system.
2. An "*" proceeding a time represents a vehicle which was queued along the Somerset Street at the time the count started.
3. The letter proceeding the vehicle type indicates a certain type or feature of the vehicle, such as:
   T = Trailer
   RO = Roll Off Dumpter
   FB = Flat Bed
   DB = Dump Bed

ATTENDANCE

Public Information Meeting
May 28, 2008
For
Prolerized New England Company LLC
Proposed Scrap Yard Facility
Riverside Street, Portland

Sheila Hanson 51 Constitution Drive Westbrook, ME 04092 797-8027 shtch5@yahoo.com	Peter Gellerson LPM Property Management 723 Riverside St. Portland, ME 772-1131 pgellerson@lathropmgmt.com
Mary L. Smith 665 East Bridge St. Westbrook, ME 04092 797-4044	Patricia and William Conley 50 Constitution Dr. Westbrook, ME 797-5569
Tom Eldridge Director Public Services City of Westbrook 317 Saco St Westbrook ME 04092 854-0660 teldridge@westbrook.me.us	Robin Talbot 44 Constitution Dr. Westbrook, ME 797-2727
Ralph and Christine Morrison 58 Constitution Dr. Westbrook, ME 797-2046	Suzanne Joyce (City Council) 231 Hardy Rd. Westbrook, ME 856-7201
Roberta Place 48 Constitution Dr. Westbrook, ME 797-4935	Juanita Sylvia 43 Constitution Dr. Westbrook, ME 797-7063

Notes from Public Informational Meeting
Schnitzer Steel
Prolerized New England Company LLC (PNE)
Riverside Street Facility, Portland Maine
May 28, 2008

Attending for PNEC:

Carl Beal – Civil Consultants (design engineer)
Hope Jacobsen – Perkins Thompson (PNE counsel)
Wendy Andersen – Woodburn & Co (PNE Landscape Architecture)
Colin Kelly (PNE)
Keri Fitzpatrick (PNE)
Representative – Peter Hedrich, Gorrill-Palmer Consulting Engineers (PNE's traffic consultant)

Approximately 10 Westbrook residents (see attached sign in sheet)
2 Representatives for Town of Westbrook, ME

The meeting began at approximately 6:15 p.m. at the Riverton Community Center. The members of the public were introduced to the team and asked to sign in on the attendance sheet. Carl Beal gave an overview of the project including location, nature of the operation, traffic information, stormwater treatment and noise study information. Wendy Andersen gave a detailed overview of the proposed plantings and landscaping for the site, including the trees slated to be planted as a buffer at the back of the property to minimize the view from Westbrook. Peter Hedrich gave an overview of the traffic study performed at the site.

Members of the public expressed concerns about operating hours, noise, traffic, water quality and landscaping. The applicant's team answered questions on all of the above issues. The applicant's noise expert was not in attendance but will be for the public hearing, which residents were informed of. Residents were told the public hearing before the planning board would likely be in July and that they would receive notice of it.

The meeting adjourned at 7:45 p.m.

From: "Carl V Beal" <carl@civcon.com>
To: <rwk@portlandmaine.gov>
Date: 2/20/2008 3:19:51 PM
Subject: Prolerized New England Company Wetland

Rick,

Attached is a narative that should have been included in Exhibit 11 of the Prolerized application. It explains the Wetlands found on-site and the determination made by DEP about which are jurisdicitional.

Please insert this into Exhibit 11 of the 7 copies I dropped off this morning.

Thanks,

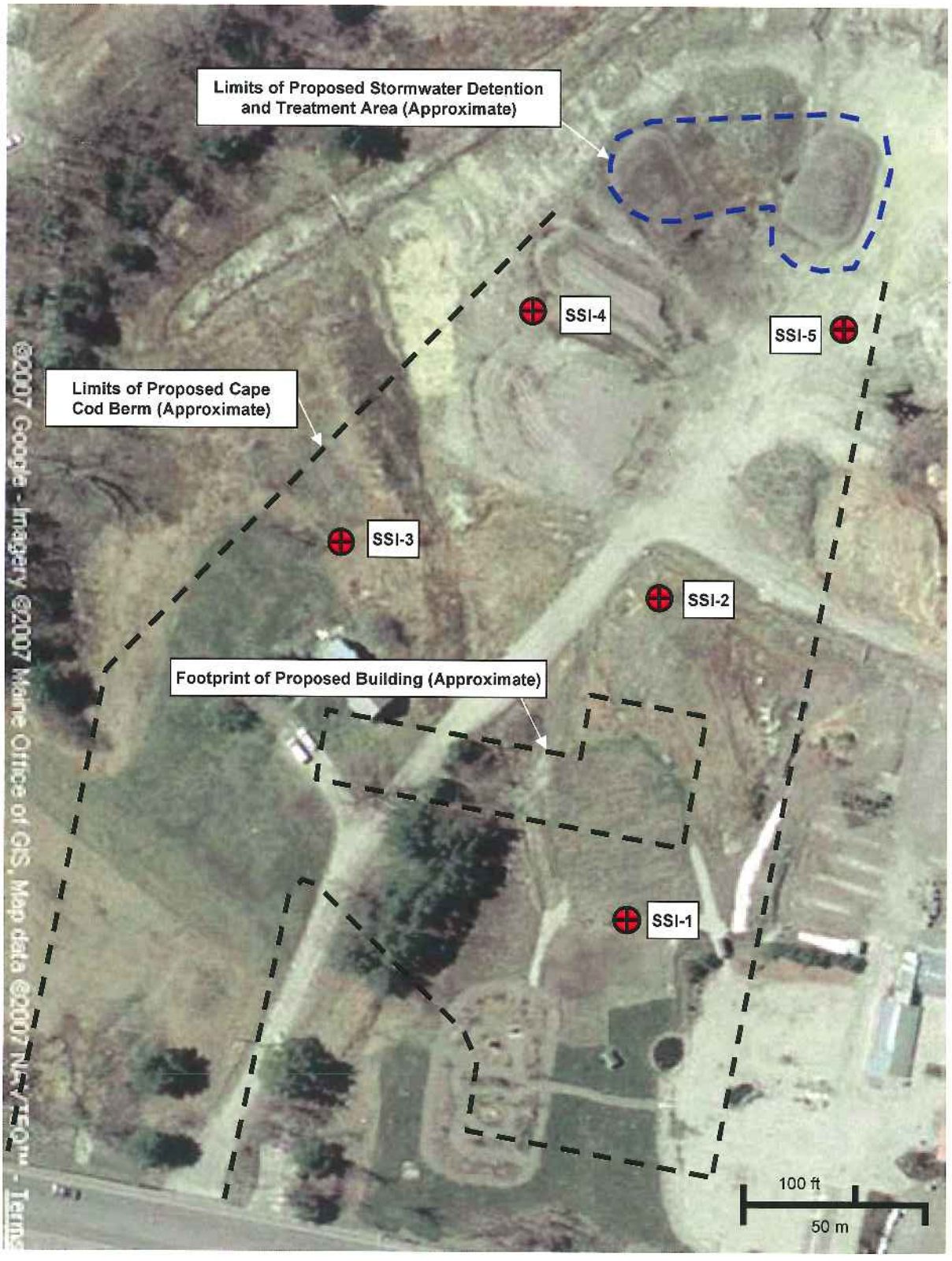
Carl V. Beal, P.E.
Civil Consultants

CC: <hjacobsen@perkinsthompson.com>, <damurphy@schn.com>, '"Jeanne Schmeichel"' <jschmeichel@schn.com>, <ccout@civcon.com>

LEGAL ADVERTISEMENT
NOTICE OF PUBLIC HEARING
CITY OF PORTLAND

The Portland City Council will hold a public hearing on Wednesday, January 21, 2009, 7:00 p.m., Council Chambers, 2nd Floor, City Hall, 389 Congress Street, to consider an application by Prolerzied New England Company LLC., for a license to operate a scrap metal recycling facility at 568 Riverside Street. Public comments will be taken at this meeting.

FMI: The proposed scrap metal recycling facility application is available in the Portland Planning Division, 4th Floor, City Hall. If you wish to submit written comments, address them to Richard Knowland, Senior Planner, Planning Division, 4th Floor, 389 Congress Street, Portland, ME 04101, by phone at (207) 874-8725 or email rwk@portlandmaine.gov



R.W. Gillespie & Associates, Inc.
Geotechnical Engineering • Geohydrology • Materials Testing Services

RWG&A: 427.41

N
W E
S

Figure 1 – Proposed Surface Soil Sampling Locations

Future Schnitzer Steel Industries, Inc.
Riverside Street
Portland, Maine 04101

July 2007

Amendments to Scrap Metal Recycling Facilities Rules
Promulgated by the
Department of Planning and Development
Pursuant to the
Scrap Metal Recycling Facilities Ordinance

The following amendments to the scrap metal recycling facilities rules are promulgated pursuant to Section 31-10 of the Scrap Metal Facilities Ordinance and all terms, conditions and requirements in that ordinance are hereby incorporated by reference.

Rule #1 Baseline Testing:

(a) An environmental waste baseline sampling plan is required which shall include the location of soil sampling and groundwater sampling locations to establish waste baseline environmental conditions at the site.

(b) A minimum of three on-site surficial soil samples, on the upper six (6) inches and three Geoprobe-installed or conventionally-installed overburden monitoring wells are required for all sites.

(c) The Department shall review and approve the number and location of soil samples and monitoring wells after reviewing the waste baseline exploration and sampling plan in accordance with generally accepted environmental standards and after consulting with the applicant's environmental consultant, if necessary.

(d) Initial waste baseline evaluation of the scrap metal recycling facility requires a waste management compliance audit of the facility by a qualified professional and the results of the audit shall be submitted to the City of Portland for evaluation prior to issuance of the license for the facility.

Rule #2 Soil Testing:

(a) Initial waste baseline testing shall consist of five on-site soil samples collected according to a sampling plan developed by a qualified environmental professional and submitted to the Department for review and approval as part of the application.

(b) Of the five on-site samples three shall be taken from soils in the principle outdoor work areas, i.e., in which metals to be recycled are received, processed and stored. The two additional on-site samples shall be taken in areas that are down-gradient from the principal work areas and are adjacent to property boundaries at which metals to be recycled are received, processed or stored. The soil samples shall represent a composite of the upper six-inches of soil at the sampling location.

(c) The soil samples shall be analyzed for volatile organic compounds (EPA Method 8260), semi-volatile organic compounds (EPA Method 8270), PCBs (EPA Method 8082), the eight RCRA metals (EPA Methods 3010/6010), and nickel (Ni), zinc (Zn) and copper (Cu) (EPA Method 6010) diesel-range organics (MDEP Method 4.1.25), and gasoline-range organics (MDEP Method 4.2.17).

(d) The criteria for evaluation of soil samples shall be the Maine DEP Remedial Action Guidelines for Soils (RAGS) of May 20, 1997 (the "Remedial Action Guidelines".

(e) The City of Portland reserves the right to request split samples of soil taken as part of the licensing procedure. The split samples taken by the City of Portland shall be analyzed by an independent laboratory in order to provide corroboration of results.

In the event that the results of waste baseline soil sampling exceed the Remedial Action Guidelines, the City may require additional sampling at the metal recycling facility or off-site and/or a plan for remediation of contaminated soils at on-site or off-site locations.

Notwithstanding any other provision of the Scrap Metal Recycling Ordinance or these Rules, in the event that a scrap metal recycling facility is located in or has relocated to an existing industrial, commercial or retail site and the baseline test results contain exceedances of certain parameters that either are consistent with a use known to exist at the site prior to scrap metal recycling facility taking possession of the site, or shown to have occurred prior to the scrap metal recycling facility taking possession of the site, then no remediation plan for those parameters shall be required of the owner or operator of the scrap metal recycling facility so long as the previously existing baselines or the state regulatory guidelines as incorporated, whichever are higher, are not exceeded.

If a remediation plan is implemented by an entity other than the owner or operator of the scrap metal recycling facility or voluntarily implemented by such owner or operator and the remediation lowers the previously existing baselines, the lower baselines or the state regulatory guidelines as incorporated, whichever are higher, shall be used for the purpose of future testing and remediation requirements.

Rule #3 Groundwater Testing:

(a) Initial waste baseline testing shall consist of three on-site overburden monitoring wells installed by Geoprobe or conventional drilling methods. The location and the rationale for the location of the three monitoring wells shall be developed by a qualified environmental professional and submitted to the Department for review and approval as part of the application.

(b) The three monitoring wells shall be located so as to monitor groundwater emanating from the principle outdoor work areas, i.e., areas in which metals to be recycled are received, processed and stored. Ten-foot well screens in the monitoring wells shall be placed so as to intersect the groundwater table. Groundwater samples shall

be taken from the three monitoring wells in according with MDEP Low-Flow Groundwater Sampling Guidance, June 1996.

(c) The water samples shall be analyzed for volatile organic compounds (EPA Method 8260), semi-volatile organic compounds (EPA Method 8270), PCBs (EPA Method 8082), the eight RCRA metals (EPA Methods 6010/7470), and nickel (Ni, zinc (Zn), copper (Cu), and antimony (Sb) (EPA Method 6010) diesel-range organics (MDEP Method 4.1.25), and gasoline-range organics (MDEP Method 4.2.17).

(d) The criteria for evaluation of water samples shall be the Maine DHS Maximum Exposure Guidelines of January 20, 2000 ("MEGs") and the Procedural Guidelines for Establishing Action Levels and Remediation Goals for the Remediation of Oil-Contaminated Soil and Groundwater in Maine, March 13, 2000 (a/k/a "Decision Tree analysis").

(e) The City of Portland reserves the right to request split samples of groundwater taken as part of the licensing procedure. The split samples taken by the City of Portland shall be analyzed by an independent laboratory in order to provide corroboration of results.

In the event that the waste baseline groundwater sampling exceeds the Maximum Exposure Guidelines or the guidelines of the decision tree, the City may require additional sampling at the metal recycling facility and a plan for remediation of contaminated groundwater at the on-site locations.

Notwithstanding any other provision of the Scrap Metal Recycling Ordinance or these Rules in the event that a scrap metal recycling facility is located in or has relocated to another existing industrial, commercial, or retail site and the baseline test results contain exceedances of certain parameters that either are consistent with a use known to exist at that site prior to the scrap metal recycling facility taking possession of the site, or are shown to have occurred prior to the scrap metal recycling facility taking possession of the site, then no remediation plan for those parameters shall be required of the owner or operator of the scrap metal recycling facility so long as the previously existing baselines ore the state regulatory guidelines as incorporated, whichever are higher, are not exceeded.

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Rule #4 Dismantling Motor Vehicles and Other Items Containing Waste:

The dismantling of items containing waste shall take place in a building with an impervious floor and appropriate equipment and containers to properly extract and store waste and recover any spilled or escaped waste in compliance with state and federal laws.

Upon receiving a motor vehicle, the battery shall be removed and located in such a ways as to ensure the battery's contents will not spill onto the ground.

When any engine lubricant, transmission fluid, brake fluid and/or engine coolant is removed from a vehicle, those fluids shall be drained into watertight containers which shall be kept covered and secured by containment in a storage building designed to contain spills. Any fluids from the motor vehicle shall be stored, recycled or disposed of according to all applicable federal and state laws. No discharge of any fluids from any motor vehicle shall be permitted into or onto the ground.

Rule #5 Storage and Handling of Waste:

Waste shall be stored and handled pursuant to and in compliance with state law and applicable regulations of the Maine Department of Environmental Protection and any amendments thereto.

Hazardous substances and hazardous waste, including PCBs, solvents, and degreasers, and mercury and special wastes, including petroleum-related products shall be received, handled, processed, stored and disposed of in accordance with State of Maine Hazardous Waste Management Rules (06-096 CMR 850, Chapter 850 and 851, January 23, 2001) and Solid Waste Management Regulations (06-096 CMR Chapter 400 et seq., September 1, 1999).

Rule #6 Setback Requirement; Visual Screening and Limitation on the Height of Piles of Metal or Other Material.

In no event shall the scrap metal recycling facility be located closer than 100 feet from a public road. The setback provision shall apply to temporary or permanent storage, weighing, or processing areas for any metal or material within the scrap metal recycling facility, but shall not apply to any driveways or administrative buildings, and shall not apply to the fences or screening which may be established to keep the facility screened from ordinary view, except such fences or screening must be outside the public road right-of-way. For the purposes of the Rules, the term "from a public road" shall mean from the far side of any immediately adjacent public road.

Visual impact standards can be met through buildings, plantings, fences, berms, setbacks, or other screening, or a combination thereof; however, the screening shall in no case exceed 15 feet in height and any piles of metal or other material shall not exceed 30 feet in height except as allowed by this Rule.

(a) *Fencing.* Fences shall be so located and of sufficient height to entirely screen those portions of the metal recycling facility or any piles of material within the facility used to receive, process or store any form of metal from ordinary view. The minimum height of any fence is six feet, although the actual height must be sufficient to accomplish the complete screening from ordinary view but <u>in no case may the height of the fence exceed 15 feet</u>. All fences shall be well constructed and maintained. All fences shall be

uniform in appearance, erected in a workmanlike manner, and constructed of sound, undamaged material.

(b) *Plantings.* Screening may be accomplished through the planting and/or maintenance of trees, shrubs, or other vegetation of sufficient height, density and depth of planting or growth to entirely screen those portions of the metal recycling facility used to receive, process or store any form of metal from ordinary view throughout the calendar year.

(c) *Natural or man-made screening.* Screening may be accomplished by use of the following natural or man-made screens provided those portions of the scrap metal recycling facility used to receive, process or store any form of metal are entirely screened from ordinary view.

(1) *Hills, gullies, or embankments.* Where man-made, such screens must be constructed to blend with the landscape with loaming and seeding or other treatment as may be necessary to establish a natural appearance; or

(2) Building or other installations; or

(3) A combination of the above.

If buildings or other installations are used, they are not subject to the 15 foot height limitation on fences or other types of screening.

For the purpose of this rule the phrase "entirely screened" shall not be interpreted to apply to piles of metal or other material that exceed 30 ft. on 5 days or less in a 30 consectuve day period unless the owner or operator applies for additional time and shows good cause for the request, or to openings used for entrances or exits to and from the facility or that are on abutting property.

Rule #7 Exemption from Specific Requirements:

The following requirements shall not apply to facilities existing on or before the effective date of this Ordinance.

(a) Rule 6, 100' setback requirement.

Rule #8 Annual Testing Requirements

The annual testing required under Section 31-6(d) of the Scrap Metal Recycling Facilities Ordinance shall conform to the following requirements.

(a) Groundwater samples shall be taken from the existing three on-site overburden monitoring wells on an annual basis in conformance with Rule #3(b)-(c).

(b) For those facilities that were required to undertake a remedial action plan after the initial waste baseline sampling, annual soil sampling shall be conducted in conformance with Rule #2(b)-(c), if the department demonstrates that the remedial action plan was not implemented in accordance with its terms. Said sampling shall be limited to those areas identified in either the initial waste baseline sampling plan or through further testing previously required by the department.

(c) After a facility can demonstrate for three consecutive years that the results of any sampling that it conducted are within the regulatory guidelines as outlined above, that facility shall be allowed to test once every three years for those substances the levels of which were below the regulatory guidelines.

those portions of the metal recycling facility used to receive, process or store any form of metal from ordinary view throughout the calendar year.

(c) *Natural or man-made screening.* Screening may be accomplished by use of the following natural or man-made screens provided those portions of the scrap metal recycling facility used to receive, process or store any form of metal are entirely screened from ordinary view.

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(c) After a facility can demonstrate for three consecutive years that the results of any sampling that it conducted are within the regulatory guidelines as outlined above, that facility shall be allowed to test once every three years for those substances the levels of which were below the regulatory guidelines.

R. W. Gillespie & Associates, Inc.
Geotechnical Engineering • Geohydrology • Materials Testing Services

July 24, 2007

Mr. Rick Knowland, Senior Planner
City of Portland Planning and Development Department
389 Congress Street
Portland, Maine 04101

Subject: Request for Review - Proposed "Baseline" Soil Sampling Locations
Future Schnitzer Steel Facility - Riverside Street
Portland, Maine
RWG&A Project No. 427-41ENV

Dear Mr. Knowland:

In accordance with recent *Amendments to Scrap Metal Recycling Facilities Rules* (see copy attached) R.W. Gillespie & Associates, Inc. (RWG&A) on behalf of Schnitzer Steel is submitting for City review and approval locations for baseline soil sampling and analysis pursuant to Rule #2.

Surficial Soil Sampling

Five locations have been selected for initial waste baseline testing as identified on the aerial photograph of the site adapted as Figure 1, attached. Three soil sampling locations–labeled SSI-1, SSI-2 and SSI-3–are situated near the proposed recycling building in principal outdoor work areas. Two soil sampling locations–labeled SSI-4 and SSI-5–are downgradient of principal work areas and are adjacent to property boundaries. Sheet number C2, attached, shows existing and proposed features in the site vicinity.

Due to the potential for existing soil impacts from previous operations at the site (Lucas Tree) a site specific health and safety plan will be prepared prior to field work to guide sampling activities. Samples for laboratory testing will be collected by an RWG&A geologist at approved locations under the direction of a Maine Certified Geologist (CG). Samples will be manually collected from the upper six inches of the soil mantle utilizing a hand trowel or shovel, as appropriate. An approximate 2 ft by 2 ft sampling unit will be established at each location. A total of four

Corporate Office
200 International Dr., Ste 170
Portsmouth, NH 03801
603-427-0244 • Fax 603-430-2041

86 Industrial Park Rd., Ste 4
Saco, ME 04072
207-286-8008 • Fax 207-286-2882

P.O. Box 289
Augusta, ME 04344
207-623-4914 • Fax 207-623-3429

www.rwgillespie.com

subsamples, one from each quadrant of the sampling unit, will be collected from the upper six inches of the ground surface. The four subsamples will then be mixed together to form a single, composite soil sample at each of the proposed locations. Polyethylene sample bags or clean 5-gallon plastic buckets will be used to contain the composite sample during homogenization. (Note: because Rule #2 specifies a composite sample at each location, undisturbed, in-situ samples will not be collected.) Prior to moving to the next location, non-disposable sampling tools will be decontaminated with deionized water and detergent to minimize the possibility of cross-contamination.

Following collection, the requisite volume of materials for analysis will be placed in appropriate containers provided by the laboratory. In the case of volatile organic compounds, diesel range organics, and gasoline range organics, the material for testing will be collected in calibrated syringes provided by the laboratory and placed directly in vials containing preservative. Containers will be labeled, placed in a cooler with ice, and transported to the laboratory accompanied by a completed chain-of-custody form. At this time we anticipate submitting the samples to Analytics Environmental Laboratory LLC, a Maine certified laboratory, for testing.

Laboratory Testing

The five composite surficial soil samples will be tested for the following parameters in accordance with requirements of Rule #2:

- Volatile Organic Compounds (VOC) - EPA Method 8260;
- Semi-volatile Organic Compounds (SVOC) - EPA Method 8270;
- Polychlorinated Biphenyls (PCB) - EPA Method 8082;
- Total RCRA 8 Metals, plus Nickel, Zinc, and Copper - EPA Methods 3010/6010;
- Diesel Range Organics (DRO) - Maine DEP (HETL) Method 4.1.25;
- Gasoline Range Organics (GRO) - Maine DEP (HETL) Method 4.2.17

For purposes of data evaluation and interpretation relative to Rule #2, we understand that baseline soil testing results are to be compared with Maine Department of Environmental Protection (Maine DEP) Remedial Action Guidelines for Soils (RAGS).

Time Frame

As you are aware, plans for Schnitzer Steel's relocation to the site are underway, and construction of the new facility is slated to begin in the near future. Toward this end, RWG&A intends to perform the baseline soil sampling program immediately upon City approval of the plan.

Therefore, on behalf of Schnitzer Steel, we respectfully request review of this proposed sampling plan be conducted at your earliest convenience. If, during your review, you have any questions, please contact the undersigned directly at our Saco, Maine office. RWG&A appreciates your assistance and prompt attention to this request.

Very truly yours,
R. W. GILLESPIE & ASSOCIATES, INC

Cynthia A. Thayer

Cynthia A. Thayer, C.G.
Chief Geohydrologist

CAT:ci
In duplicate
Attachments

cc: John Tewhey, C.G. - Tewhey Associates, Inc.
Hope Jacobsen, Esq. - Perkins Thompson
Carl Beal, P.E. - Civil Consultants, Inc.

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG116337-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: 059-009 SDG No.: SF7960

Lab File ID: AFK2093A Lab Sample ID: WG116337-1

Instrument ID: GC10 Date Extracted: 11/12/12

Matrix: (soil/water) WATER Date Analyzed: 11/14/12

Level: (low/med) LOW Time Analyzed: 1801

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG116337-LCS	WG116337-2	AFK2094A	11/14/12	1839
02	WG116337-LCSD	WG116337-3	AFK2095A	11/14/12	1916
03	SW1 OUT	SF7960-1	AFK2107	11/15/12	0213
04	SW1 IN	SF7960-2DL	AFK2137	11/21/12	2334
05					
06					
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30					

COMMENTS:

FORM IVDRO

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: 059-009
PO No:
Sample Date:
Received Date:
Extraction Date: 11/12/12
Analysis Date: 14-NOV-2012 18:01
Report Date: 11/26/2012
Matrix: WATER
% Solids: NA

Lab ID: WG116337-1
Client ID: WG116337-Blank
SDG: SF7960
Extracted by: JH
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG116337
Units: ug/L

Compound	Flags	Results	DF	PQL	Adj.PQL
Extractable TPH C9-C36	U	75	1.0	75	75
O-Terphenyl		64%			

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: 059-009
PO No:
Sample Date:
Received Date:
Extraction Date: 11/12/12
Analysis Date: 11/14/12
Report Date: 11/26/2012
Matrix: WATER

Lab ID: WG116337-2& WG116337-3
Client ID: WG116337-LCS & WG116337-LCSD
SDG: SF7960
Extracted by: JH
Extraction Method: SW846 3510
Analyst: AC
Analysis Method: SW846 M8015B
Lab Prep Batch: WG116337
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	500	500	NA	307	365	61	73	17	20	45-118

Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : 059-009
Lab File ID : 7GH069.D
Matrix : AQ

Column A
Instrument ID : GC07
Date Analyzed : 07-AUG-13
Time Analyzed : 12:36

SDG : SG5622
Lab Sample ID : WG128214-1
Date Extracted : 05-AUG-13
Extraction Method : SW846 3510

Column B
Instrument ID : GC07
Date Analyzed : 07-AUG-13
Time Analyzed : 12:36

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG128214-2	7GH070.D	08/07/13	13:10
Laboratory Control S	WG128214-3	7GH071.D	08/07/13	13:44
MW-1	SG5622-1	7GH072.D	08/07/13	14:18

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Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : 059-009
Lab File ID : 7GH164.D
Matrix : AQ
Column A
Instrument ID : GC07
Date Analyzed : 13-AUG-13
Time Analyzed : 04:21

SDG : SG5622
Lab Sample ID : WG128494-1
Date Extracted : 09-AUG-13
Extraction Method : SW846 3510
Column B
Instrument ID : GC07
Date Analyzed : 13-AUG-13
Time Analyzed : 04:21

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG128494-2	7GH165.D	08/13/13	04:55
Laboratory Control S	WG128494-3	7GH166.D	08/13/13	05:29
MW-2	SG5622-2RE	7GH169.D	08/13/13	07:11
QA/QC	SG5622-4RE	7GH170.D	08/13/13	07:45

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG128214-1
Client ID: Method Blank Sample
Project:
SDG: SG5622
Lab File ID: 7GH069.D

Sample Date:
Received Date:
Extract Date: 05-AUG-13
Extracted By: JH
Extraction Method: SW846 3510
Lab Prep Batch: WG128214

Analysis Date: 07-AUG-13
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-13

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Aroclor-1016	U	0.50	ug/L	1	.5	0.50
Aroclor-1221	U	0.50	ug/L	1	.5	0.50
Aroclor-1232	U	0.50	ug/L	1	.5	0.50
Aroclor-1242	U	0.50	ug/L	1	.5	0.50
Aroclor-1248	U	0.50	ug/L	1	.5	0.50
Aroclor-1254	U	0.50	ug/L	1	.5	0.50
Aroclor-1260	U	0.50	ug/L	1	.5	0.50
Tetrachloro-M-Xylene		95.7	%			
Decachlorobiphenyl		91.4	%			

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG128494-1
Client ID: Method Blank Sample
Project:
SDG: SG5622
Lab File ID: 7GH164.D

Sample Date:
Received Date:
Extract Date: 09-AUG-13
Extracted By: KF
Extraction Method: SW846 3510
Lab Prep Batch: WG128494

Analysis Date: 13-AUG-13
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-13

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Aroclor-1016	U	0.10	ug/L	1	.5	0.10
Aroclor-1221	U	0.10	ug/L	1	.5	0.10
Aroclor-1232	U	0.10	ug/L	1	.5	0.10
Aroclor-1242	U	0.10	ug/L	1	.5	0.10
Aroclor-1248	U	0.10	ug/L	1	.5	0.10
Aroclor-1254	U	0.10	ug/L	1	.5	0.10
Aroclor-1260	U	0.10	ug/L	1	.5	0.10
Tetrachloro-M-Xylene	*	128.	%			
Decachlorobiphenyl		88.5	%			

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Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG128214-2
LCSD ID: WG128214-3
Project:
SDG: SG5622
Report Date: 13-AUG-13
LCS File ID: 7GH070.D

Received Date:
Extract Date: 05-AUG-13
Extracted By: JH
Extraction Method: SW846 3510
Lab Prep Batch: WG128214
LCSD File ID: 7GH071.D

Analysis Date: 07-AUG-13
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Aroclor-1016	5.00	4.35	87.0	4.20	84.0	ug/L	20	30	65-112
Aroclor-1260	5.00	3.91	78.2	3.89	77.8	ug/L	29	30	62-104
Tetrachloro-M-Xylene			101.		83.0				62-111
Decachlorobiphenyl			87.5		79.1				44-135

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ANALYTICAL SERVICES

nelac
Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG128494-2
LCSD ID: WG128494-3
Project:
SDG: SG5622
Report Date: 13-AUG-13
LCS File ID: 7GH165.D

Received Date:
Extract Date: 09-AUG-13
Extracted By: KF
Extraction Method: SW846 3510
Lab Prep Batch: WG128494
LCSD File ID: 7GH166.D

Analysis Date: 13-AUG-13
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Aroclor-1016	5.00	5.30	106.	5.74	115.*	ug/L	8	30	65-112
Aroclor-1260	5.00	3.61	72.2	4.11	82.2	ug/L	13	30	62-104
Tetrachloro-M-Xylene			96.2		106.				62-111
Decachlorobiphenyl			45.1		39.0*				44-135

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Report of Analytical Results

Client: Acadia Environmental Techn
Lab ID: SG5622-1
Client ID: MW-1
Project: 059-009
SDG: SG5622
Lab File ID: 2GII10091.D

Sample Date: 01-AUG-13
Received Date: 02-AUG-13
Extract Date: 12-AUG-13
Extracted By: EKC
Extraction Method: MA-VPH
Lab Prep Batch: WG128642

Analysis Date: 12-AUG-13
Analyst: EKC
Analysis Method: MA DEP VPH 04-1.1
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-13

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Unadjusted C5-C8 Aliphatics	U	100	ug/L	1	100	100
Unadjusted C9-C12 Aliphatics	U	100	ug/L	1	100	100
C5-C8 Aliphatics	U	100	ug/L	1	100	100
C9-C12 Aliphatics	U	100	ug/L	1	100	100
C9-C10 Aromatics	U	100	ug/L	1	100	100
Benzene	U	4.0	ug/L	1	4	4.0
Ethylbenzene	U	5.0	ug/L	1	5	5.0
Methyl tert-butylether	U	5.0	ug/L	1	5	5.0
Naphthalene	U	5.0	ug/L	1	5	5.0
Toluene	U	5.0	ug/L	1	5	5.0
m+p-Xylenes	U	10	ug/L	1	10	10.
o-Xylene	U	5.0	ug/L	1	5	5.0
2,5-Dibromotoluene (FID)		78.6	%			
2,5-Dibromotoluene (PID)		71.2	%			

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

City of Portland
c/o Mark Rees, City Manager
389 Congress Street
Portland, ME 04101

Re:

PIN :	018364.00
PROJECT :	STP-1836(400)
TOWN :	Portland
PARCEL NO. :	1

Dear Property Owner:

Today, as the Department's representative, I have explained to you the proposed construction and the effect it will have on your property. I have attempted to answer any questions you had. I have also explained the methods used in preparing our appraisal and the basis for our determination of just compensation for the land and rights to be acquired. I have made you an offer in the amount of $250.00 which represents the just compensation as determined by a qualified appraiser and approved by one of the Department's review appraisers.

The land and/or rights to be acquired from you for this project are as follows:

Valuation Type	Count	Area	Unit
Temp. Const. Rights	1	386.00	Sq. Feet

The following is a statement by the Department of Transportation regarding the parcel or parcels of land above referenced:

A. The highest and best use of the property at the date of taking.
Recreational

B. The fair market value of the real property taken as of the date of taking.
$165.00

C. Offering price.
$250.00

Form AQ-2
Revised 09/30/2010

I have explained your recourse if the State's offer is not acceptable. The booklet "A Land Owner's Guide to the Property Acquisition Process" confirms the procedures available to you. If a copy of this booklet has not previously been given to you, please request one. I have also explained that the property owner or designated representative is responsible for informing any potential purchaser of the impending acquisition of land and/or rights as required by Title 23, M.R.S.A. Section 153-3(4).

A great deal of time has been spent in the effort to design an attractive, safe highway; also to design it in the manner that will cause the least damage to adjoining property; and finally to determine by properly made and carefully reviewed appraisals the just compensation due to the owners. I hope that we have accomplished our objective.

Please be advised that if you have a mortgage, the mortgage company holds a recorded interest in your property. Under Maine law, your mortgage company may receive a copy of the condemnation documents and may be named on your just compensation check. If your mortgage company is named on your compensation check, your lender must endorse the check before you can cash it. Your mortgage document quite likely contains a provision that addresses eminent domain takings. If your lender is named on your check, you should review this language in your mortgage carefully and deal with your lender directly. The holders of tax liens or other recorded encumbrances on your property may also appear on your check. Again, their endorsement will be required and you will need to deal with them directly.

PROPERTY MARKERS: Action taken by the 115th Maine Legislature has revised Maine's landmark location law (14 M.R.S.A., Sec. 7554-A). Please be sure to inform me if your property markers do not appear on our plans. The Department does not set property pins, but will re-establish the point of former location of a disrupted pin on request from the owner.

Under certain conditions MaineDOT can reimburse eligible property owners for reasonable cost associated with resetting a property pin on the new right of way line by a Licensed Professional Land Surveyor. If necessary, I will explain the eligibility criteria and application process.

Sincerely,

Melodie Kennedy

Melodie Kennedy
MaineDOT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Owner's Offer-Assent

Property Owner(s):
City of Portland

PIN:	**018364.00**
Project No:	**STP-1836(400)**
Town:	**Portland**
Parcel/Item No:	**1**

BACKGROUND:

1. It has been determined that public exigency requires the construction or reconstruction by altering, widening, changing the grade of and/or changing the drainage of a portion of State Highway "**Bayside Trail** " in the Town of **Portland**, County of **Cumberland** and State of Maine through a Maine Department of Transportation (the "MaineDOT") project identified by the PIN and Project Number referenced above (the "Project").

2. In connection with the Project, the necessary real property rights (the "Property Rights") to be acquired have been assigned value, surveyed, and identified on a plan known as Right of Way Map, State Highway "**Bayside Trail** ", Project No. **STP-1836(400)**, on file in the Augusta headquarters of MaineDOT, File No.**3-604 MAR 2015**.

3. The Property Rights in and to a certain parcel of land identified on the Right of Way Map as Parcel No. **1**, owned by the above identified Property Owner(s) (the "Property Owner(s)") in said **Portland**, are required for construction of the Project.

4. MaineDOT intends to acquire the Property Rights by filing a Notice of Layout and Taking (the "Taking") in the **Cumberland** County Registry of Deed on or about **06/02/2015**. At MaineDOT's discretion, and with the Property Owner(s)' consent, the Property Rights may be transferred through the execution of a deed or other transactional instrument.

5. MaineDOT has determined just compensation for acquisition of the Property Rights to be **$250.00** (the "Payment"), and this amount will be paid to the Property Owner(s) upon filing of the Taking.

6. The Property Owner(s) does/do hereby acknowledge that **Melodie Kennedy**, Right of Way Agent representing the MaineDOT, met with or wrote to the Property Owner(s) and explained the Property Rights to be acquired, the just compensation Payment, and all construction impacts, changes of location, grade, drainage and slopes as they apply to the Property Owner(s)' land.

AGREEMENT

1. The Property owner(s) accept the Payment as just compensation for all Property Rights taken in connection with the Project.

2. The Property Owner(s) release Maine DOT from any further claims of just compensation arising from the Property Rights taken in connection with the Project; however, if any changes in design or construction occur after the date of this settlement and negatively impact the Property Owner's land in an unanticipated manner, the Property Owner(s) shall have the right to request that this settlement be rescinded.

In witness of the above, the parties have executed this Agreement on the date herein indicated.

Dated: _____

Property Owner(s):

_____

_____

PIN: 018364.00
Parcel #: 1
R/W Form No. N-26
Form AQ-15
Revised 03/07/2011