



Town of Glastonbury

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CONNECTICUT 06033-6523

GLASTONBURY
PUBLIC WORKS
FILE COPY

November 13, 2009

Ms. Nisha A. Patel
Supervising Sanitary Engineer
Water Permit Enforcement Division
State of Connecticut
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Re: MS4 General Permit – 2009 Testing Data
Permit #GSM000057
Invoice #DEP121442

Dear Ms. Patel:

Enclosed please find our 2009 testing data associated with the Town's MS4 General Permit. Also enclosed is a check in the amount of \$187.50 for plan review fees for the 2009 reporting year. The 2009 Annual Report will follow under separate cover.

If you have any questions or require any additional information, please contact me at (860) 652-7736.

Sincerely,

Daniel A. Pennington, P.E.
Town Engineer/Manager of
Physical Services

DAP/ce

Enclosures

cc: Stephen M. Braun, Assistant Town Engineer

2009 STORMWATER PHASE II SAMPLING RESULTS

**Town of Glastonbury
Glastonbury, Connecticut**

Laboratory Parameter ⁽²⁾	Commercial ⁽¹⁾		Industrial ⁽¹⁾		Residential ⁽¹⁾	
	Outfall 1 (C-1)	Outfall 2 (C-2)	Outfall 1 (C-1)	Outfall 2 (C-2)	Outfall 1 (R-1)	Outfall 2 (R-2)
Uncontaminated Rainfall Sample (SU) ⁽³⁾	5.5	5.5	5.5	5.5	5.5	5.5
Stormwater pH (SU) ⁽³⁾	6.91	6.43	6.94	4.98	7.19	7.28
Hardness (mg/L) ⁽⁴⁾	38.6	8.46	49.1	42.6	31.8	68.7
Conductivity (umos) ⁽⁵⁾	249	54.6	164	397	150	289
Oil and Grease (mg/L)	12	<1.5	<1.6	3.2	<1.6	<1.4
Chemical Oxygen Demand (mg/L)	69	89	150	200	62	12
Turbidity (NTU) ⁽⁶⁾	21.0	18.5	23.0	196	19.3	3.33
Total Suspended Solids (mg/L)	22	22	26	140	19	9.0
Total Phosphorous (mg/L)	0.12	0.26	0.23	0.11	0.12	<0.02
Ammonia (mg/L)	0.75	1.4	0.87	5.7	0.96	0.11
Total Kjeldahl Nitrogen (mg/L)	2.1	2.2	1.2	6	1.1	1.1
Nitrate plus Nitrite Nitrogen (mg/L)	0.85	0.53	0.61	0.34	0.84	3.5
E. coli (col/100 mL) ⁽⁷⁾	4,350	910	670	240	5,170	1,550

Notes:

1. Refer to Stormwater Sampling Data form for the locations of each stormwater outfall.
2. Laboratory parameters are taken from the CT DEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems.
3. SU = standard units
4. mg/L = milligrams per liter
5. umos = micromhos
6. NTU = nephelometric turbidity units
7. col/100 mL = coliforms per 100 milliliters



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Glastonbury</u>
Mailing Address: <u>2155 Main Street, P.O. Box 6523, Glastonbury, CT 06033-7734</u>
Contact Person: <u>Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>860-652-7742</u>
Permit Registration # <u>GSM000057</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): <u>C-1 (42 inch RCP pipe behind stores at south end of Griswold Mall on Main Street)</u>
Please circle the appropriate area description: Industrial, <u>Commercial</u> or Residential
Receiving Water (name, basin): <u>Salmon Brook, Connecticut River Drainage Basin (#4406)</u>
Time of Start of Discharge: <u>Variable</u>
Date/Time Collected: <u>9/11/09 at 12:10 pm</u> Water Temperature: _____
Person Collecting Sample: <u>M. Reiser of Environmental Compliance Services, Inc.</u>
Storm Magnitude (inches): <u>approx. 0.36</u> Storm Duration (hours): <u>approx. 30 hours</u>
Date of Previous Storm Event: <u>8/29/09</u>

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	6.91 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200	38.6 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	249 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	12 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	69 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	21.0 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	22 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.12 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	0.75 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	2.1 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	0.85 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	4,350 col/100 mL	Phoenix Environmental Laboratories, Inc.

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u>Robert W. Shirshac</u>	Date: <u>11/6/2009</u>



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Contact Person: <u>Robert Shirshac</u>	Title: <u>Senior Engineering Technician</u> Phone: <u>860-652-7742</u>
Permit Registration # <u>GSM000057</u>	

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): <u>C-2 (60 inch RCP pipe north of parking lot for 379 Naubuc Ave. on west side of Naubuc Ave. at intersection with Glastonbury Blvd.)</u>	
Please circle the appropriate area description: Industrial, <u>Commercial</u> or Residential	
Receiving Water (name, basin): <u>Salmon Brook, Connecticut River Drainage Basin (#4406)</u>	
Time of Start of Discharge: <u>Variable</u>	
Date/Time Collected: <u>9/11/09 at 12:20 pm</u>	Water Temperature: _____
Person Collecting Sample: <u>M. Reiser of Environmental Compliance Services, Inc.</u>	
Storm Magnitude (inches): <u>approx. 0.36</u>	Storm Duration (hours): <u>approx. 30 hours</u>
Date of Previous Storm Event: <u>8/29/09</u>	

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	6.43 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200.	8.46 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	54.6 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.5 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	89 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	18.5 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	22 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.26 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	1.4 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	2.2 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	0.53 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	910 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u>Robert W. Shirshac</u>	Date: <u>11/6/2009</u>



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Contact Person: <u>Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>860-652-7742</u>
Permit Registration # <u>GSM000057</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): <u>I-1 (48 inch RCP pipe through retaining wall behind CVS Pharmacy on New London Tpke. just south of intersection with Oak St.)</u>
Please circle the appropriate area description: <u>Industrial</u> Commercial or Residential
Receiving Water (name, basin): <u>Hubbard Brook, Connecticut River Drainage Basin (#4407)</u>
Time of Start of Discharge: <u>Variable</u>
Date/Time Collected: <u>9/11/09 at 11:30 am</u> Water Temperature: _____
Person Collecting Sample: <u>M. Reiser of Environmental Compliance Services, Inc.</u>
Storm Magnitude (inches): <u>approx. 0.36</u> Storm Duration (hours): <u>approx. 30 hours</u>
Date of Previous Storm Event: <u>8/29/09</u>

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	6.94 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200.	49.1 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	164 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.6 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	150 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	23.0 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	26 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.23 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	0.87 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	1.2 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	0.61 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	670 col/100 mL	Phoenix Environmental Laboratories, Inc.

STATEMENT OF ACKNOWLEDGMENT

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General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

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Contact Person: <u>Robert Shirshac</u>	Title: <u>Senior Engineering Technician</u> Phone: <u>860-652-7742</u>
Permit Registration # <u>GSM000057</u>	

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): <u>I-2 (15 inch RCP pipe into retention pond south of corner at east end of Commerce St.)</u>	
Please circle the appropriate area description: <u>Industrial</u> Commercial or Residential	
Receiving Water (name, basin): <u>Hubbard Brook, Connecticut River Drainage Basin (#4407)</u>	
Time of Start of Discharge: <u>Variable</u>	
Date/Time Collected: <u>9/11/09 at 11:40 am</u>	Water Temperature: _____
Person Collecting Sample: <u>M. Reiser of Environmental Compliance Services, Inc.</u>	
Storm Magnitude (inches): <u>approx. 0.36</u>	Storm Duration (hours): <u>approx. 30 hours</u>
Date of Previous Storm Event: <u>8/29/09</u>	

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	4.98 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200.	42.6 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	397 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	3.2 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	200 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	196 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	140 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.11 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	5.7 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	6 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	0.34 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	240 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u>Robert W. Shirshac</u>	Date: <u>11/6/2009</u>



**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems**

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Glastonbury

Mailing Address: 2155 Main Street, P.O. Box 6523, Glastonbury, CT 06033-7734

Contact Person: Robert Shirshac Title: Senior Engineering Technician Phone: 860-652-7742

Permit Registration # GSM000057

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): R-1 (36 inch ACCMP pipe northeast of 279 Cavan Ln.)

Please circle the appropriate area description: Industrial, Commercial or **Residential**

Receiving Water (name, basin): Salmon Brook, Connecticut River Drainage Basin (#4406)

Time of Start of Discharge: Variable

Date/Time Collected: 9/11/09 at 11:55 am Water Temperature: _____

Person Collecting Sample: M. Reiser of Environmental Compliance Services, Inc.

Storm Magnitude (inches): approx. 0.36 Storm Duration (hours): approx. 30 hours

Date of Previous Storm Event: 8/29/09

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.19 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200.	31.8 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	150 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.6 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	62 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	19.3 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	19 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.12 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	0.96 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	1.1 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	0.84 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	5,170 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: Robert Shirshac, Senior Engineering Technician

Signature: *Robert W. Shirshac* Date: 11/6/2009



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Contact Person: Robert Shirshac Title: Senior Engineering Technician Phone: 860-652-7742
Permit Registration # GSM000057

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): R-2 (18 inch RCP pipe behind 58 Whapley Rd.)
Please circle the appropriate area description: Industrial, Commercial or Residential
Receiving Water (name, basin): Hubbard Brook, Connecticut River Drainage Basin (#4407)
Time of Start of Discharge: Variable
Date/Time Collected: 9/11/09 at 11:15 am Water Temperature: _____
Person Collecting Sample: M. Reiser of Environmental Compliance Services, Inc.
Storm Magnitude (inches): approx. 0.36 Storm Duration (hours): approx. 30 hours
Date of Previous Storm Event: 8/29/09

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.28 SU	Phoenix Environmental Laboratories, Inc.
Rain pH	Litmus Paper	5.5 SU	Environmental Compliance Services, Inc.
Hardness	SW 6010/EPA 200.	68.7 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	289 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.4 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	12 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	E 180.1	3.33 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	9.0 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	<0.02 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	350.1	0.11 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	1.1 mg/L	Phoenix Environmental Laboratories, Inc.
NO ₃ +NO ₂	E 353.2	3.5 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	1,550 col/100 mL	Phoenix Environmental Laboratories, Inc.

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