

# STORMWATER SAMPLING DATA

## Town of Glastonbury Bloomfield, Connecticut

General Information		
Sampling Personnel: Luke Whitehouse, Environmental Compliance Services, Inc.		
Sampling Date: 1/16/13		
Rain Start Time: ~8:30 am	Rain Stop Time: ~12:00 pm	Runoff Start Time: unknown
Rain Description (i.e., drizzle, steady, downpour, etc.): steady		
Outside Temperature: ~36° F		
Magnitude of Storm Event (in inches): ~0.45		
Date of Previous Storm Event of 0.1 Inches or More: 1/11/13		
Location of Rain Gauge or Gauging Station: Glastonbury, CT, as reported on <a href="http://www.erh.noaa.gov/box/dailystns.shtml">http://www.erh.noaa.gov/box/dailystns.shtml</a>		
Sampling Data		
Outfall No.	Location Description	Sampling Time
C-1	42" RCP pipe (discharging south) behind stores at south end of Griswold Mall on Main St.	12:00 pm
C-2	60" RCP pipe (discharging west) north of parking lot for 379 Naubuc Ave. on west side of Naubuc Ave. at intersection with Glastonbury Blvd.	11:30 am
I-1	48" RCP pipe (discharging south) through retaining wall behind CVS Pharmacy on New London Tpke. just south of intersection with Oak St.	1:00 pm
I-2	15" RCP pipe (discharging east) into retention pond south of corner at east end of Commerce St.	1:30 pm
R-1	36" ACCMP pipe (discharging northeast) northeast of 279 Cavan Ln.	2:00 pm
R-2	18" RCP pipe (discharging south) behind 58 Whapley Rd.	12:30 pm
Analysis Data		
Laboratory Performing Analyses: Phoenix Environmental Laboratories, Inc.		
Date Samples Dropped Off: 1/16/13		
<u>Note:</u> Attach laboratory report, including analytical results, techniques and methods used.		
Comments		
Sample for I-2 taken from catch basin in Commerce St.		

**2012 STORMWATER PHASE II SAMPLING RESULTS TABLE**

## 2012 STORMWATER PHASE II SAMPLING RESULTS

Town of Glastonbury  
Glastonbury, Connecticut

Laboratory Parameter <sup>(2)</sup>	Commercial <sup>(1)</sup>		Industrial <sup>(1)</sup>		Residential <sup>(1)</sup>	
	Outfall 1 (Glast C-1)	Outfall 2 (Glast C-2)	Outfall 1 (Glast I-1)	Outfall 2 (Glast I-2)	Outfall 1 (Glast R-1)	Outfall 2 (Glast R-2)
Untaminated Rainfall Sample (SU) <sup>(3)</sup>	NS <sup>(8)</sup>	NS	NS	NS	NS	NS
Stormwater pH (SU) <sup>(3)</sup>	7.20	6.82	7.11	6.93	7.54	7.39
Hardness (mg/L) <sup>(4)</sup>	100	261	154	102	271	46.5
Conductivity (umos) <sup>(5)</sup>	4,370	22,300	9,000	5,430	16,700	910
Oil and Grease (mg/L)	3.1	4.4	5.2	3.8	<1.4	<1.4
Chemical Oxygen Demand (mg/L)	114	310	130	110	146	<10
Turbidity (NTU) <sup>(6)</sup>	78.1	159	173	79.1	16.7	1.83
Total Suspended Solids (mg/L)	46	120	130	48	19	<5.0
Total Phosphorous (mg/L)	0.12	0.34	0.21	0.08	0.07	0.21
Ammonia (mg/L)	0.54	1.61	0.98	3.35	0.57	0.04
Total Kjeldahl Nitrogen (mg/L)	1.25	5.48	2.31	3.92	1.17	0.71
Nitrate plus Nitrite Nitrogen (mg/L)	1.45	0.39	0.51	0.61	0.85	1.74
E. coli (col/100 mL) <sup>(7)</sup>	930	160	400	40	40	10

**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
8. NS = Not Sampled

**STORMWATER MONITORING REPORTS**



# 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): C-1 (42 inch RCP pipe behind stores at south end of Griswold Mall on Main Street)

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: 1/16/13 at 12:00 pm Water Temperature: \_\_\_\_\_

Person Collecting Sample: Luke Whitehouse of Environmental Compliance Services, Inc.

Storm Magnitude (inches): approx. 0.45 Storm Duration (hours): approx. 3.5 hours

Date of Previous Storm Event: 1/11/13

### MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.20 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	100 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	4,370 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	3.1 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	114 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	78.1 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	46 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.12 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	0.54 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	1.25 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	1.45 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	930 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: Robert Shirshac, Senior Engineering Technician

Signature: *Robert Shirshac* Date: 1/28/2013



# 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-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>1/16/13 at 12:00 pm</u>	Water Temperature: _____
Person Collecting Sample: <u>Luke Whitehouse of Environmental Compliance Services, Inc.</u>	
Storm Magnitude (inches): <u>approx. 0.45</u>	Storm Duration (hours): <u>approx. 3.5 hours</u>
Date of Previous Storm Event: <u>1/11/13</u>	

### MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	6.82 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	261 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	22,300 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	4.4 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	310 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	159 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	120 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.34 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	1.61 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	5.48 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	0.39 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	160 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u><i>Robert Shirshac</i></u>	Date: <u>1/28/2013</u>



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## 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-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>1/16/13 at 12:00 pm</u>	Water Temperature: _____
Person Collecting Sample: <u>Luke Whitehouse of Environmental Compliance Services, Inc.</u>	
Storm Magnitude (inches): <u>approx. 0.45</u>	Storm Duration (hours): <u>approx. 3.5 hours</u>
Date of Previous Storm Event: <u>1/11/13</u>	

### MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.11 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	154 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	9,000 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	5.2 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	130 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	173 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	130 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.21 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	0.98 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	2.31 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	0.51 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	400 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u><i>Robert Shirshac</i></u>	Date: <u>1/28/2013</u>



# 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>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>1/16/13 at 12:00 pm</u>	Water Temperature: _____
Person Collecting Sample: <u>Luke Whitehouse of Environmental Compliance Services, Inc.</u>	
Storm Magnitude (inches): <u>approx. 0.45</u>	Storm Duration (hours): <u>approx. 3.5 hours</u>
Date of Previous Storm Event: <u>1/11/13</u>	

### MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	6.93 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	102 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	5,430 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	3.8 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	110 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	79.1 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	48 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.08 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	3.35 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	3.92 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	0.61 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	40 col/100 mL	Phoenix Environmental Laboratories, Inc.

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Authorized Official: <u>Robert Shirshac, Senior Engineering Technician</u>	
Signature: <u><i>Robert Shirshac</i></u>	Date: <u>1/28/2013</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: 1/16/13 at 12:00 pm Water Temperature: \_\_\_\_\_

Person Collecting Sample: Luke Whitehouse of Environmental Compliance Services, Inc.

Storm Magnitude (inches): approx. 0.45 Storm Duration (hours): approx. 3.5 hours

Date of Previous Storm Event: 1/11/13

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.54 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	271 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	16,700 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.4 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	146 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	16.7 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	19 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.07 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	0.57 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	1.17 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	0.85 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	40 col/100 mL	Phoenix Environmental Laboratories, Inc.

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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: 1/16/13 at 12:00 pm Water Temperature: \_\_\_\_\_

Person Collecting Sample: Luke Whitehouse of Environmental Compliance Services, Inc.

Storm Magnitude (inches): approx. 0.45 Storm Duration (hours): approx. 3.5 hours

Date of Previous Storm Event: 1/11/13

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-HB/9040	7.39 SU	Phoenix Environmental Laboratories, Inc.
Rain pH		Not Sampled	
Hardness	E 200.7	46.5 mg/L	Phoenix Environmental Laboratories, Inc.
Conductivity	SM 2510B	910 umos	Phoenix Environmental Laboratories, Inc.
Oil & Grease	EPA 1664A	<1.4 mg/L	Phoenix Environmental Laboratories, Inc.
COD	SM 5220 D	<10 mg/L	Phoenix Environmental Laboratories, Inc.
Turbidity	SM 2130 B	1.83 NTU	Phoenix Environmental Laboratories, Inc.
TSS	SM 2540 D	<5.0 mg/L	Phoenix Environmental Laboratories, Inc.
TP	SM 4500 PE	0.21 mg/L	Phoenix Environmental Laboratories, Inc.
Ammonia	E 350.1	0.04 mg/L	Phoenix Environmental Laboratories, Inc.
TKN	E 351.1	0.71 mg/L	Phoenix Environmental Laboratories, Inc.
NO <sub>3</sub> +NO <sub>2</sub>	E 353.2	1.74 mg/L	Phoenix Environmental Laboratories, Inc.
E. coli	SM 9223 B	10 col/100 mL	Phoenix Environmental Laboratories, Inc.

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