



# Town of Glastonbury

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

January 18, 2006

**GLASTONBURY  
PUBLIC WORKS  
FILE COPY**

Mr. Christopher Stone, P.E.  
Stormwater Permit Coordinator  
Bureau of Water Management  
Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Re: Town of Glastonbury – MS4 Permit  
2005 Sampling Data and Plan Review Fee

Dear Mr. Stone:

Enclosed please find stormwater sampling results and the annual plan review fee in the amount of \$187.50 related to the Town's MS4 permit for 2005. This data supplements our Annual Report that was submitted on October 27, 2005 as a combined report for both 2004 and 2005.

If you have any questions or require any additional information, please contact me at your earliest convenience.

Sincerely,

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

SMB/ce

Enclosures

cc: Stephen M. Braun, Assistant to the Town Engineer  
Robert W. Shirshac, Senior Engineering Technician

# Anchor Engineering Services, Inc.



*Civil Engineering • Environmental Consulting • Construction Management • Land Surveying*

November 18, 2005

Mr. Robert Shirshac  
Senior Engineering Technician  
Town of Glastonbury  
2155 Main Street  
Glastonbury, Connecticut 06033

Re: DEP Phase II MS4 Stormwater General Permit  
Stormwater Monitoring Reports: 2005 Samples

Dear Mr. Shirshac:

On September 15, 2005 Anchor Engineering personnel collected MS4 stormwater samples at six different Town of Glastonbury storm outfalls. The samples were transported under chain-of-custody procedures to Phoenix Environmental Laboratories for chemical analyses.

Attached are six different Stormwater Monitoring Reports (SMRs) for your review, signature (at the bottom of each), date, and submittal to the DEP. Please note that in the sampling information section of the SMR is a section to identify the area as industrial, commercial, or residential, which you need to circle. According to the DEP permit, two of the six sampling locations need to be industrial, two need to be commercial, and two need to be residential. The attached laboratory data is for informational purposes and should not be submitted with the SMRs. Signed SMRs should be mailed along with the annual report to:

Stormwater Permit Coordinator  
Bureau of Water Management  
Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Please provide us with a copy of the signed SMRs for our records. If you have any questions regarding these results, or about the annual report that the Town has to submit by January 1, 2006, please call either of the undersigned at (860) 633-8770.

Sincerely,

Patrick J. McKay  
Environmental Scientist

James C. Otis, P.E.  
Principal



**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, Glastonbury, CT 06033</u>
Contact Person: <u>Mr. Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>(860) 652-7712</u>
Permit Registration # <u>GSM 000057</u>

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): <u>West of Buttonball Lane, 300' south of intersection with Hubbard Street; 36" RCP outlet</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Hubbard Brook, 4007</u>
Time of Start of Discharge: <u>approx. 8:00 a.m.</u>
Date/Time Collected: <u>9/15/05 11:45 a.m.</u> Water Temperature: <u>approx. 68 deg. F</u>
Person Collecting Sample: <u>Jeffrey Wilson</u>
Storm Magnitude (inches): <u>0.91 in.</u> Storm Duration (hours): <u>approx. 2.5 hours</u>
Date of Previous Storm Event: <u>8/31/05</u>

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	7.19 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	28.2 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	77 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	< 1.4 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	73 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	110 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	83 mg/L	Phoenix Environmental Laboratories
TP	E365.2	0.41 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.43 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	0.79 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.46 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 1000/100mls	Phoenix Environmental Laboratories

**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>DANIEL A. PENNINGTON TOWN ENGINEER</u>
Signature:	<u><i>Daniel A. Pennington</i></u> Date: <u>12-22-05</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, Glastonbury, CT 06033</u>
Contact Person: <u>Mr. Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>(860) 652-7712</u>
Permit Registration # <u>GSM 000057</u>

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): <u>North side of Neipsic Road, 100' east of intersection with New London Turnpike; 18" RCP outlet</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Hubbard Brook, 4007</u>
Time of Start of Discharge: <u>approx. 8:00 a.m.</u>
Date/Time Collected: <u>9/15/05 11:30 a.m.</u> Water Temperature: <u>approx. 68 deg. F</u>
Person Collecting Sample: <u>Jeffrey Wilson</u>
Storm Magnitude (inches): <u>0.91 in.</u> Storm Duration (hours): <u>approx. 2.5 hours</u>
Date of Previous Storm Event: <u>8/31/05</u>

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	6.27 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	5.75 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	97 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	< 1.4 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	62 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	14 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	13 mg/L	Phoenix Environmental Laboratories
TP	E365.2	1.5 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.61 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	1.4 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.44 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 1000/100mls	Phoenix Environmental Laboratories

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Authorized Official:	<u>DANIEL A. PENNINGTON P.E. TOWN ENGINEER</u>
Signature:	<u>Daniel A. Pennington</u> Date: <u>12/22/05</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, Glastonbury, CT 06033</u>
Contact Person: <u>Mr. Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>(860) 652-7712</u>
Permit Registration # <u>GSM 000057</u>

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): <u>375' south of National Drive, 750' east of intersection with Western Boulevard; 36' RCP outlet</u>	
Please circle the appropriate area description: Industrial, Commercial, or Residential	
Receiving Water (name, basin): <u>Salmon Brook, 4006</u>	
Time of Start of Discharge: <u>approx. 8:00 a.m.</u>	
Date/Time Collected: <u>9/15/05 11:00 a.m.</u>	Water Temperature: <u>approx. 68 deg. F</u>
Person Collecting Sample: <u>Jeffrey Wilson</u>	
Storm Magnitude (inches): <u>0.91 in.</u>	Storm Duration (hours): <u>approx. 2.5 hours</u>
Date of Previous Storm Event: <u>8/31/05</u>	

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	6.56 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	10 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	42 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	< 1.4 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	49 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	5.16 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	< 5 mg/L	Phoenix Environmental Laboratories
TP	E365.2	0.19 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.27 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	0.71 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.39 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 1000/100mls	Phoenix Environmental Laboratories

**STATEMENT OF ACKNOWLEDGMENT**

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Authorized Official:	<u>DANIEL A. PENNINGTON P.E. TOWN ENGINEER</u>
Signature:	<u><i>Daniel A. Pennington</i></u> Date: <u>12-22-05</u>



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Municipal Separate Storm Sewer Systems**

**Stormwater Monitoring Report Form**

**PERMITTEE INFORMATION**

Town: <u>Town of Glastonbury</u>
Mailing Address: <u>2155 Main Street, Glastonbury, CT 06033</u>
Contact Person: <u>Mr. Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>(860) 652-7712</u>
Permit Registration # <u>GSM 000057</u>

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): <u>400' southeast of Commerce Street, on the southwest side of Route 2; 24" RCP outlet</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Hubbard Brook, 4007</u>
Time of Start of Discharge: <u>approx. 8:00 a.m.</u>
Date/Time Collected: <u>9/15/05 11:15 a.m.</u> Water Temperature: <u>approx. 68 deg. F</u>
Person Collecting Sample: <u>Jeffrey Wilson</u>
Storm Magnitude (inches): <u>0.91 in.</u> Storm Duration (hours): <u>approx. 2.5 hours</u>
Date of Previous Storm Event: <u>8/31/05</u>

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	6.22 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	8.55 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	45 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	6.3 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	78 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	46 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	44 mg/L	Phoenix Environmental Laboratories
TP	E365.2	0.33 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.35 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	1.3 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.36 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 1000/100mls	Phoenix Environmental Laboratories

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Authorized Official:	<u>DANIEL A. PENNINGTON P.E. TOWN ENGINEER</u>
Signature:	<u><i>Daniel A. Pennington</i></u> Date: <u>12-22-05</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, Glastonbury, CT 06033</u>
Contact Person: <u>Mr. Robert Shirshac</u> Title: <u>Senior Engineering Technician</u> Phone: <u>(860) 652-7712</u>
Permit Registration # <u>GSM 000057</u>

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): <u>West of Main Street opposite of Rankin Road; 42'' ACCMP outlet</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Hubbard Brook, 4007</u>
Time of Start of Discharge: <u>approx. 15:45 p.m.</u>
Date/Time Collected: <u>9/15/05 16:25 p.m.</u> Water Temperature: <u>approx. 68 deg. F</u>
Person Collecting Sample: <u>Jeffrey Wilson</u>
Storm Magnitude (inches): <u>0.91 in.</u> Storm Duration (hours): <u>approx. 2.5 hours</u>
Date of Previous Storm Event: <u>8/31/05</u>

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	6.50 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	6.4 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	26 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	< 1.4 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	27 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	14.6 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	170 mg/L	Phoenix Environmental Laboratories
TP	E365.2	0.55 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.4 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	2.1 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.29 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 600/100mls	Phoenix Environmental Laboratories

**STATEMENT OF ACKNOWLEDGMENT**

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Authorized Official:	<u>DANIEL A. PENNINGTON P.E. TOWN ENGINEER</u>
Signature:	<u>Daniel A. Pennington</u> Date: <u>12-22-05</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, Glastonbury, CT 06033

Contact Person: Mr. Robert Shirshac Title: Senior Engineering Technician Phone: (860) 652-7712

Permit Registration # GSM 000057

**SAMPLING INFORMATION**

Discharge Location (Lat/Long or other description): West of Main Street opposite of Hebron Avenue; 36'' RCP outlet

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

Receiving Water (name, basin): Hubbard Brook, 4007

Time of Start of Discharge: approx. 15:45 p.m.

Date/Time Collected: 9/15/05 16:20 p.m. Water Temperature: approx. 68 deg. C

Person Collecting Sample: Jeffrey Wilson

Storm Magnitude (inches): 0.82 in. Storm Duration (hours): approx. 2.5 hours

Date of Previous Storm Event: 8/31/05

**MONITORING RESULTS**

Parameter	Method	Results (units)	Laboratory
Sample pH	E150.1/SW9045	6.53 S.U.	Phoenix Environmental Laboratories
Rain pH	Field measured	7.55 S.U.	Anchor Engineering Services
Hardness	S2340B	5.26 mg/L	Phoenix Environmental Laboratories
Conductivity	SM2510B	22 umhos/cm	Phoenix Environmental Laboratories
Oil & Grease	EPA 1664	< 1.4 mg/L	Phoenix Environmental Laboratories
C.O.D.	SM5220 D	27 mg/L	Phoenix Environmental Laboratories
Turbidity	E180.1	21.8 NTU	Phoenix Environmental Laboratories
TSS	SM2540 D	73 mg/L	Phoenix Environmental Laboratories
TP	E365.2	0.31 mg/L	Phoenix Environmental Laboratories
Ammonia	S4500NH3	0.27 mg/L	Phoenix Environmental Laboratories
TKN	E351.1	1.2 mg/L	Phoenix Environmental Laboratories
NO <sub>3</sub> +NO <sub>2</sub>	E353.2	0.24 mg/L	Phoenix Environmental Laboratories
E. coli	SM9222G	> 600/100mls	Phoenix Environmental Laboratories

**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: DANIEL A PENNINGTON P.E. TOWN ENGINEER

Signature: *Daniel A Pennington* Date: 12-22-05





**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 September 23, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 P.O.#: 07518A

Custody Information

Collected by: JW  
 Received by: DL  
 Analyzed by: see "By" below

Date Time

09/15/05 11:00  
 09/15/05 16:32

Laboratory Data

SDG I.D.: GAG69157  
 Phoenix I.D.: AG69160

Client ID: GLASTONBURY STORMWATER MS4 07518 NATIONAL DR

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	3.17	0.01	mg/L	09/16/05		EK	200.7/6010
Hardness (CaCO3)	10	0.10	mg/L	09/19/05		RM1	S2340B
Magnesium	0.505	0.01	mg/L	09/16/05		EK	200.7/6010
Escherichia Coli	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM9222G
Total Coliform	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM 9222B
C.O.D.	49	10	mg/L	09/20/05		JL	SM5220 D
Conductivity	42	1.0	umhos/cm	09/19/05		J/E	SM2510B
Ammonia as Nitrogen	0.27	0.02	mg/L	09/22/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.39	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	09/19/05		ESG	EPA 1664
pH	6.56	0.10	pH Units	09/15/05	20:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	0.71	0.1	mg/L	09/22/05		JD	E351.1
Phosphorus, as P	0.19	0.01	mg/L	09/20/05		JL	E365.2
Total Suspended Solids	< 5	5	mg/L	09/16/05		KL	SM2540D
Turbidity	5.16	0.10	NTU	09/15/05	21:00	CD	E180.1
Total Metals Digestion	Completed			09/15/05		AG	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director  
 September 23, 2005



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

September 27, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 I.O.#: 075-18A

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date Time

09/15/05 16:25  
 09/16/05 10:02

## Laboratory Data

SDG I.D.: GAG69332  
 Phoenix I.D.: AG69332

Client ID: GALSTONBURY-MS4 STORMWATER MS4 075 18 MAIN-RANKIN

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	1.51	0.01	mg/L	09/19/05		EKT	200.7/6010
Hardness (CaCO3)	6.4	0.10	mg/L	09/20/05		KC1	S2340B
Magnesium	0.639	0.01	mg/L	09/19/05		EKT	200.7/6010
Escherichia Coli	>600	10	/100 mls.	09/16/05	13:30	RM	SM9222G
Total Coliform	>600	10	/100 mls.	09/16/05	13:30	RM	SM 9222B
C.O.D.	27	10	mg/L	09/23/05		esg	SM5220 D
Conductivity	26	1.0	umhos/cm	09/20/05		JD	SM2510B
Ammonia as Nitrogen	0.4	0.02	mg/L	09/26/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.29	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	09/21/05		ESG	EPA 1664
pH	6.50	0.10	pH Units	09/16/05	23:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	2.1	0.1	mg/L	09/26/05		JD	E351.1
Phosphorus, as P	0.55	0.01	mg/L	09/22/05		JL	E365.2
Total Suspended Solids	170	5	mg/L	09/19/05		KL	SM2540D
Turbidity	14.6	0.10	NTU	09/16/05	23:00	CD	E180.1
Total Metals Digestion	Completed			09/16/05		AG	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

*Phyllis Shiller*  
 Phyllis Shiller, Laboratory Director  
 September 27, 2005



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

September 27, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

### Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 .O.#: 075-18A

### Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

### Date      Time

09/15/05      16:20  
 09/16/05      10:02

SDG I.D.: GAG69332

Phoenix I.D.: AG69333

## Laboratory Data

Client ID: GALSTONBURY-MS4 STORMWATER MS4 075 18 MAIN-HEBRON

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	1.34	0.01	mg/L	09/19/05		EKT	200.7/6010
Hardness (CaCO <sub>3</sub> )	5.26	0.10	mg/L	09/20/05		KC1	S2340B
Magnesium	0.466	0.01	mg/L	09/19/05		EKT	200.7/6010
Escherichia Coli	>600	10	/100 mls.	09/16/05	13:30	RM	SM9222G
Total Coliform	>600	10	/100 mls.	09/16/05	13:30	RM	SM 9222B
C.O.D.	27	10	mg/L	09/23/05		esg	SM5220 D
Conductivity	22	1.0	umhos/cm	09/20/05		JD	SM2510B
Ammonia as Nitrogen	0.27	0.02	mg/L	09/26/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.24	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	09/21/05		ESG	EPA 1664
pH	6.53	0.10	pH Units	09/16/05	23:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	1.2	0.1	mg/L	09/26/05		JD	E351.1
Phosphorus, as P	0.31	0.01	mg/L	09/22/05		JL	E365.2
Total Suspended Solids	73	5	mg/L	09/19/05		KL	SM2540D
Turbidity	21.8	0.10	NTU	09/16/05	23:00	CD	E180.1
Total Metals Digestion	Completed			09/16/05		AG	

### Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director  
 September 27, 2005



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

September 23, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 P.O.#: 07518A

Custody Information

Collected by: JW  
 Received by: DL  
 Analyzed by: see "By" below

Date Time

09/15/05 11:30  
 09/15/05 16:32

## Laboratory Data

SDG I.D.: GAG69157  
 Phoenix I.D.: AG69159

Client ID: GLASTONBURY STORMWATER MS4 07518 NEIPSIC RD

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	1.77	0.01	mg/L	09/16/05		EK	200.7/6010
Hardness (CaCO3)	5.75	0.10	mg/L	09/19/05		RM1	S2340B
Magnesium	0.322	0.01	mg/L	09/16/05		EK	200.7/6010
Escherichia Coli	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM9222G
Total Coliform	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM 9222B
C.O.D.	62	10	mg/L	09/20/05		JL	SM5220 D
Conductivity	97	1.0	umhos/cm	09/19/05		J/E	SM2510B
Ammonia as Nitrogen	0.61	0.02	mg/L	09/22/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.44	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	09/19/05		ESG	EPA 1664
pH	6.27	0.10	pH Units	09/15/05	20:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	1.4	0.1	mg/L	09/22/05		JD	E351.1
Phosphorus, as P	1.5	0.05	mg/L	09/20/05		JL	E365.2
Total Suspended Solids	13	5	mg/L	09/16/05		KL	SM2540D
Turbidity	14	0.10	NTU	09/15/05	21:00	CD	E180.1
Total Metals Digestion	Completed			09/15/05		AG	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director  
 September 23, 2005



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

September 23, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 Lab. #: 07518A

Custody Information

Collected by: JW  
 Received by: DL  
 Analyzed by: see "By" below

Date

09/15/05  
 09/15/05

Time

11:45  
 16:32

## Laboratory Data

SDG I.D.: GAG69157

Phoenix I.D.: AG69157

Client ID: GLASTONBURY STORMWATER MS4 07518 BUTTONBALL

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	8.47	0.01	mg/L	09/16/05		EK	200.7/6010
Hardness (CaCO3)	28.2	0.10	mg/L	09/19/05		RM1	S2340B
Magnesium	1.7	0.01	mg/L	09/16/05		EK	200.7/6010
Escherichia Coli	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM9222G
Total Coliform	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM 9222B
C.O.D.	73	10	mg/L	09/20/05		JL	SM5220 D
Conductivity	77	1.0	umhos/cm	09/19/05		J/E	SM2510B
Ammonia as Nitrogen	0.43	0.02	mg/L	09/22/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.46	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	09/19/05		ESG	EPA 1664
pH	7.19	0.10	pH Units	09/15/05	20:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	0.79	0.1	mg/L	09/22/05		JD	E351.1
Phosphorus, as P	0.41	0.01	mg/L	09/20/05		JL	E365.2
Total Suspended Solids	83	10	mg/L	09/16/05		KL	SM2540D
Turbidity	110	0.10	NTU	09/15/05	21:00	CD	E180.1
Total Metals Digestion	Completed			09/15/05		AG	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

*Phyllis Shiller*  
 Phyllis Shiller, Laboratory Director  
 September 23, 2005



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 September 23, 2005

FOR: Attn: Mr. Patrick McKay  
 Anchor Engineering  
 Services, Inc.  
 75 Nutmeg Lane  
 Glastonbury, CT 06033

Sample Information

Matrix: WATER  
 Location Code: ANCHOR  
 Rush Request:  
 .O.#: 07518A

Custody Information

Collected by: JW  
 Received by: DL  
 Analyzed by: see "By" below

Date Time

09/15/05 11:15  
 09/15/05 16:32

**Laboratory Data**

SDG I.D.: GAG69157  
 Phoenix I.D.: AG69158

Client ID: GLASTONBURY STORMWATER MS4 07518 RT 2

Parameter	Result	RL	Units	Date	Time	By	Reference
Calcium	2.33	0.01	mg/L	09/16/05		EK	200.7/6010
Hardness (CaCO3)	8.55	0.10	mg/L	09/19/05		RM1	S2340B
Magnesium	0.663	0.01	mg/L	09/16/05		EK	200.7/6010
Escherichia Coli	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM9222G
Total Coliform	>1000	10	/100 mls.	09/15/05	18:30	C/R	SM 9222B
C.O.D.	78	10	mg/L	09/20/05		JL	SM5220 D
Conductivity	45	1.0	umhos/cm	09/19/05		J/E	SM2510B
Ammonia as Nitrogen	0.35	0.02	mg/L	09/22/05		JD	S4500NH3
Nitrate-Nitrite (N)	0.36	0.01	mg/L	09/19/05		JL	E353.2
Oil and Grease by EPA 1664	6.3	1.4	mg/L	09/19/05		ESG	EPA 1664
pH	6.22	0.10	pH Units	09/15/05	20:00	CD	E150.1/SW9045
Nitrogen Tot Kjeldahl	1.3	0.1	mg/L	09/22/05		JD	E351.1
Phosphorus, as P	0.33	0.01	mg/L	09/20/05		JL	E365.2
Total Suspended Solids	44	10	mg/L	09/16/05		KL	SM2540D
Turbidity	46	0.10	NTU	09/15/05	21:00	CD	E180.1
Total Metals Digestion	Completed			09/15/05		AG	

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director  
 September 23, 2005

MS4

# Analytical Parameter Request Form

Project: GLASTONBURY MS4 STORMWATER  
 Location: GLASTONBURY, CT

Project No.: 075-18ADate: 9/15/05

<b>Report To:</b> Anchor Engineering Services, Inc. Attn: Patrick McKay Environmental Scientist 75 Nutmeg Lane Glastonbury, CT 06033 Phone: (860) 633-8770 Fax: (860) 633-5971	<b>Invoice To:</b> Anchor Engineering Services, Inc. Attn: <del>Glenn Lux Scott</del> <u>ATTN: [REDACTED]</u>
<b>Comments:</b> Send Invoice via Anchor Engineering for Review. Stormwater Sample (Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems [MS4])	

QC #	Sample Number	COC #	Sample Number	COC #	Sample Number
1	MS4 07518 BUTTONBALL LN				
1	MS4 07518 RT 2				
1	MS4 07518 NEIPSIC RD				
1	MS4 07518 NATIONAL DR				

### Analysis Requested:

	MDL	Units
Total Oil & Grease	1.4	mg/L
COD	10	mg/L
Total Suspended Solids	5	mg/L
Total Phosphorous	0.01	mg/L
TKN	0.1	mg/L
Nitrate plus Nitrite as N	0.05	mg/L
Hardness	0.1	mg/L
Conductivity	1	umos
Turbidity	0.05	NTU
Ammonia	0.02	mg/L
E. Coli	0	col/100 ml
pH	0.1	S.U.

- Note:**
1. The MDL for each parameter must be equivalent to the numbers shown above.
  2. Parameters per CTDEP General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) (dated 2/9/04).

10/10/2010 Pg 1 of 1

# CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Email: service@phoenixlabs.com Fax (860) 645-0823



Client Services (860) 645-8726

Customer: ANKHOR ENGINEERING SERVICES, INC.

Address: 75 NUTMEG LANE  
 GLASTONBURY, CT 06033

Project: GLASTONBURY MSH STORMWATER  
 Report to: PATRICK MCKAY; ANKHOR ENGINEERING  
 Invoice to: SCOTT ATKIN;

Project P.O.: 07518A  
 Phone #: 633-8770  
 Fax #: 633-5971

Data Delivery (check one):  
 Fax #: 633-5971  
 Email:

Temp: \_\_\_\_\_ Pg 1 of 1  
 Format:  Excel  Pdf  Gis Key

## Client Sample - Information - Identification

Sampler's Signature: Jeffrey Wallson Date: 9/15/05  
 ANKHOR

Matrix Code: WW=wastewater S=soil/solid O=Oil  
 GW=groundwater SL=sludge A=air X=Other

#	Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
1	69157	MSH 07518 Button Ball	X	9/15	11:45
2	69158	MSH 07518 Rt 2	X	9/15	11:15
3	69159	MSH 07518 NEIPSIC RD	X	9/15	11:30
4	69160	MSH 07518 NATIONAL DR	X	9/15	11:00

Analysis Request

Analysis Request	PL AS 15	GL Soil container ( ) oz	GL Soil container ( ) oz	GL Amber 100ml [As] [HCl]	PL H2SO4 [ 250ml ] 500ml [ 1000ml ]	PL HNO3 250ml	Bacteria Bottle
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓

SEE MSH APPR

Relinquished by: Jeffrey Wallson Accepted by: Patrick McKay  
 Date: 9-15-05 Time: 1032

Comments, Special Requirements or Regulations:  
 X = STORMWATER.  
 DEP STORMWATER MSH SAMPLES.

Turnaround:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other  
 \* Surcharge Applies

Requirements for CT/RI  
 Res. Criteria  
 GW Protection  
 GA Mobility  
 GB Mobility  
 SW Protection  
 Res. Vol.  
 Ind. Vol.

Requirements for MA  
 GW-1  
 GW-2  
 GW-3  
 S-1  
 S-2  
 S-3  
 MCP Certification  
 Other



# Analytical Parameter Request Form

Project: Glastonbury MS4 Stormwater  
 Location: Main/Rankin, Main/Hebron, Glastonbury

Project No.: ~~075-18A~~ 075-18A  
 Date: 9/16/05

<b>Report To:</b> Anchor Engineering Services, Inc. Attn: Patrick McKay Environmental Scientist 75 Nutmeg Lane Glastonbury, CT 06033 Phone: (860) 633-8770 Fax: (860) 633-5971	<b>Invoice To:</b> Anchor Engineering Services, Inc. Attn: Ginni Lux
--	---

**Comments:** Send Invoice via Anchor Engineering for Review.  
 Stormwater Sample (Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems [MS4])

OC#	Sample Number	COC#	Sample Number	COC#	Sample Number
1	MS4-075-18 Main/Rankin				
1	MS4-075-18 Main/Hebron				

**Analysis Requested:**

	<u>MDL</u>	<u>Units</u>
Total Oil & Grease	1.4	mg/L
COD	10	mg/L
Total Suspended Solids	5	mg/L
Total Phosphorous	0.01	mg/L
TKN	0.1	mg/L
Nitrate plus Nitrite as N	0.05	mg/L
Hardness	0.1	mg/L
Conductivity	1	umos
Turbidity	0.05	NTU
Ammonia	0.02	mg/L
E. Coli	0	col/100 ml
pH	0.1	S.U.

- Note:**
1. The MDL for each parameter must be equivalent to the numbers shown above.
  2. Parameters per CTDEP General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) (dated 2/9/04).

