# Appendix 1

# 2019 MS4 Stormwater Annual Report

**Water Testing Data** 

Part 1 – Laboratory Reports



Friday, May 03, 2019

Attn: Mr. Luke Whitehouse ATC Associates 290 Roberts St., Suite 301 East Hartford, CT 06108

Project ID: NEW HAVEN STORMWATER

SDG ID: GCD02275

Sample ID#s: CD02275 - CD02281

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

May 03, 2019

SDG I.D.: GCD02275

Project ID: NEW HAVEN STORMWATER

Client Id	Lab Id	Matrix
0122	CD02275	STORM WATER
0124	CD02276	STORM WATER
0124X	CD02277	STORM WATER
0125	CD02278	STORM WATER
0126	CD02279	STORM WATER
0127	CD02280	STORM WATER
0128	CD02281	STORM WATER



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR:

Attn: Mr. Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

Location Code:

STORM WATER

ATC-EHDAS

Rush Request:

Standard

**Custody Information** Collected by:

Received by: Analyzed by:

LB

see "By" below

04/26/19 04/26/19 <u>Time</u> 9:00

Date

14:02

P.O.#:

.aboratory Data

SDG ID: GCD02275

Phoenix ID: CD02275

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

0122

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time By Reference
Boron	< 0.05	0.05	mg/L	1	
Hardness (CaCO3)	36.1	0.1	mg/L	1	31100100
Escherichia Coli	7270	10	MPN/100 mls	10	
Enterococci Bacteria	3080	10	MPN/100 mls	10	04/26/19 15:50 MLT/KDB SM9223B-04
Fecal Coliforms MPN	4880	10	MPN/100 mls		04/26/19 15:55 MLT/KDB Enterolert
Total Coliforms	>24200	10		10	04/26/19 15:55 MLT/KDB Colifert-18
Chlorine Residual			MPN/100 mls	10	04/26/19 15:50 MLT/KDB SW9223B-06
	< 0.02	0.02	mg/L	1	04/26/19 18:44 O SM4500CI-G-00
C.O.D.	65	10	mg/L	1	04/27/19 DA SM5220D-11
Conductivity	179	5.00	umhos/cm	1	04/27/19 RR/EG SM2510B-11
MBAS	0.16	0.05	mg/L	1	04/27/19 09:14 EG SM5540 C-11
Ammonia as Nitrogen	0.37	0.05	mg/L	1	04/30/19 KDB E350.1
Nitrite-N	0.024	0.010	mg/L	1	04/26/19 17:59 TB E353.2
Nitrate-N	0.80	0.02	mg/L	1	04/26/19 17:59 TB E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	04/30/19 MSF E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19 AP SM2520B-10
Nitrogen Tot Kjeldahl	2.95	0.10	mg/L	1	04/30/19 KDB E351.1
Phosphorus, as P	0.401	0.010	mg/L	1	05/01/19 JR SM4500PE-11
Total Suspended Solids	36	10	mg/L	2	04/29/19 BJA/EG SM2540D-11
Turbidity	15.0	0.20	NTU	1	04/26/19 17:59 RWR SM2130B-11
Total Metals Digestion	Completed				04/29/19 AG

Project ID: NEW HAVEN STORMWATER

Client ID: 0122

Phoenix I.D.: CD02275

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR:

Attn: Mr. Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

P.O.#:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

**Custody Information** Collected by:

Received by:

LB

04/26/19 9:10

Date

04/26/19 14:02

Time

Analyzed by:

see "By" below

aboratory Data

SDG ID: GCD02275

Phoenix ID: CD02276

Project ID:

**NEW HAVEN STORMWATER** 

Client ID: 0124

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	0.05	0.05	mg/L	1	04/30/19	CPP	SW6010D
Hardness (CaCO3)	61.0	0.1	mg/L	1	04/30/19		E200.7
Escherichia Coli	>24200	10	MPN/100 mls	10	04/26/19 15:50	MLT/KDE	3 SM9223B-04
Enterococci Bacteria	4610	10	MPN/100 mls	10	04/26/19 15:55	MLT/KD	3 Enterolert
Fecal Coliforms MPN	>24200	10	MPN/100 mls	10	04/26/19 15:55	MLT/KDE	3 Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	04/26/19 15:50	MLT/KDE	3 SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 18:45	0	SM4500CI-G-00
C.O.D.	1090	20	mg/L	2	04/27/19	DA	SM5220D-11
Conductivity	471	5.00	umhos/cm	1	04/27/19	RR/EG	SM2510B-11
MBAS	13.9	0.50	mg/L	10	04/27/19 09:15	EG	SM5540 C-11
Ammonia as Nitrogen	34.2	1.00	mg/L	20	04/30/19	KDB	E350.1
Nitrite-N	0.080	0.010	mg/L	1	04/26/19 18:00	ТВ	E353.2
Nitrate-N	0.27	0.02	mg/L	1	04/26/19 18:00	ТВ	E353.2
Oil and Grease by EPA 1664	130	1.4	mg/L	1	04/30/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	78.6	2.00	mg/L	20	04/30/19	KDB	E351.1
Phosphorus, as P	8.51	0.10	mg/L	10	05/01/19	JR	SM4500PE-11
Total Suspended Solids	320	20	mg/L	4	04/29/19	BJA/EG	SM2540D-11
Turbidity	167	0.20	NTU	1	04/26/19 17:59	RWR	SM2130B-11
Total Metals Digestion	Completed				04/29/19	AG	

Project ID: NEW HAVEN STORMWATER

Client ID: 0124

RL/
Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: CD02276



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR:

Attn: Mr. Luke Whitehouse

**ATC Associates** 

see "By" below

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

Received by: Analyzed by:

LB

04/26/19

9:20

<u>Time</u>

Date

04/26/19 14:02

P.O.#:

<u>aboratory Data</u>

**Custody Information** 

Collected by:

SDG ID: GCD02275

Phoenix ID: CD02277

Project ID:

NEW HAVEN STORMWATER

Client ID: 0124X

		RL/			
Parameter	Result	PQL	Units	Dilution	Date/Time By Reference
Boron	0.05	0.05	mg/L	1	04/30/19 CPP SW6010D
Hardness (CaCO3)	23.9	0.1	mg/L	1	04/30/19 E200.7
Escherichia Coli	216	10	MPN/100 mls	10	04/26/19 15:50 MLT/KDB SM9223B-04
Enterococci Bacteria	134	10	MPN/100 mls	10	04/26/19 15:55 MLT/KDB Enterolert
Fecal Coliforms MPN	395	10	MPN/100 mls	10	04/26/19 15:55 MLT/KDB Colilert-18
Total Coliforms	19900	10	MPN/100 mls	10	04/26/19 15:50 MLT/KDB SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 18:46 O SM4500CI-G-00
C.O.D.	99	10	mg/L	1	04/27/19 DA SM5220D-11
Conductivity	432	5.00	umhos/cm	1	04/27/19 RR/EG SM2510B-11
MBAS	0.44	0.10	mg/L	2	04/27/19 09:15 EG SM5540 C-11
Ammonia as Nitrogen	0.92	0.25	mg/L	5	05/01/19 KDB E350.1
Nitrite-N	0.033	0.010	mg/L	1	04/26/19 18:01 TB E353.2
Nitrate-N	0.19	0.02	mg/L	1	04/26/19 18:01 TB E353.2
Oil and Grease by EPA 1664	3.5	1.4	mg/L	1	04/30/19 MSF E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19 AP SM2520B-10
Nitrogen Tot Kjeldahl	2.40	0.50	mg/L	5	05/01/19 KDB E351.1
Phosphorus, as P	0.196	0.010	mg/L	1	05/01/19 JR SM4500PE-11
Total Suspended Solids	38	10	mg/L	2	04/29/19 BJA/EG SM2540D-11
Turbidity	67.5	0.20	NTU	1	20,723 31123402 11
Total Metals Digestion	Completed			ı	04/26/19 17:59 RWR SM2130B-11 04/29/19 AG

Project ID: NEW HAVEN STORMWATER

Client ID: 0124X

RL/
Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: CD02277



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR: Attn: Mr. Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER

Location Code:

ATC-EHDAS

Rush Request: Standard

P.O.#:

Project ID:

 Custody Information
 Date
 Time

 Collected by:
 04/26/19
 9:40

 Received by:
 LB
 04/26/19
 14:02

Analyzed by: see "By" below

Laboratory Data

SDG ID: GCD02275

Phoenix ID: CD02278

NEW HAVEN STORMWATER

Client ID: 0125

December		RL/			
Parameter	Result	PQL	Units	Dilution	Date/Time By Reference
Boron	0.41	0.05	mg/L	1	04/30/19 CPP SW6010D
Hardness (CaCO3)	788	0.1	mg/L	1	05/01/19 E200.7
Escherichia Coli	10	10	MPN/100 mls	10	04/26/19 15:50 MLT/KDB SM9223B-04
Enterococci Bacteria	61	10	MPN/100 mls	10	04/26/19 15:55 MLT/KDB Enterolert
Fecal Coliforms MPN	10	10	MPN/100 mls	10	04/26/19 15:55 MLT/KDB Colilert-18
Total Coliforms	934	10	MPN/100 mls	10	04/26/19 15:50 MLT/KDB SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 18:47 O SM4500CI-G-00
C.O.D.	65	10	mg/L	1	04/27/19 DA SM5220D-11
Conductivity	4250	5.00	umhos/cm	1	04/27/19 RR/EG SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	04/27/19 09:18 EG SM5540 C-11
Ammonia as Nitrogen	0.17	0.10	mg/L	2	05/01/19 KDB E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	04/26/19 18:02 TB E353.2
Nitrate-N	0.54	0.02	mg/L	1	04/26/19 18:02 TB E353.2
Oil and Grease by EPA 1664	6.6	1.4	mg/L	1	04/30/19 MSF E1664A
Salinity	3.1	0.5	ppt	1	05/02/19 AP SM2520B-10
Nitrogen Tot Kjeldahl	0.59	0.20	mg/L	2	05/01/19 KDB E351.1
Phosphorus, as P	0.067	0.010	mg/L	1	05/01/19 JR SM4500PE-11
Total Suspended Solids	37	5.0	mg/L	1	04/29/19 BJA/EG SM2540D-11
Turbidity	7.22	0.20	NTU	1	04/26/19 17:59 RWR SM2130B-11
Total Metals Digestion	Completed				04/29/19 AG

Project ID: NEW HAVEN STORMWATER Phoenix I.D.: CD02278

Client ID: 0125

RL/
Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR: Attn: Mr. Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:04/26/1911:00Location Code:ATC-EHDASReceived by:LB04/26/1914:02

Rush Request: Standard Analyzed by: see "By" below

P.O.#: Laboratory Data

<u>aboratory Data</u> SDG ID: GCD02275

Phoenix ID: CD02279

Project ID: NEW HAVEN STORMWATER

Client ID: 0126

_		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	0.06	0.05	mg/L	1	04/30/19	CPP	SW6010D
Hardness (CaCO3)	136	0.1	mg/L	1	04/30/19		E200.7
Escherichia Coli	>24200	10	MPN/100 mls	10	04/26/19 15:50	MLT/KDE	3 SM9223B-04
Enterococci Bacteria	>24200	10	MPN/100 mls	10	04/26/19 15:55	MLT/KDE	3 Enterolert
Fecal Coliforms MPN	>24200	10	MPN/100 mls	10	04/26/19 15:55	MLT/KDE	3 Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	04/26/19 15:50	MLT/KDE	3 SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 18:47	0	SM4500CI-G-00
C.O.D.	459	10	mg/L	1	04/27/19	DA	SM5220D-11
Conductivity	608	5.00	umhos/cm	1	04/27/19	RR/EG	SM2510B-11
MBAS	1.92	0.10	mg/L	2	04/27/19 09:18	EG	SM5540 C-11
Ammonia as Nitrogen	14.5	0.50	mg/L	10	05/01/19	KDB	E350.1
Nitrite-N	0.093	0.010	mg/L	1	04/26/19 18:06	ТВ	E353.2
Nitrate-N	0.25	0.02	mg/L	1	04/26/19 18:06	ТВ	E353.2
Oil and Grease by EPA 1664	27	1.4	mg/L	1	04/30/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	26.6	1.00	mg/L	10	05/01/19	KDB	E351.1
Phosphorus, as P	4.00	0.050	mg/L	5	05/01/19	JR	SM4500PE-11
Total Suspended Solids	130	13	mg/L	2.5	04/29/19	BJA/EG	SM2540D-11
Turbidity	51.1	0.20	NTU	1	04/26/19 17:59	RWR	SM2130B-11
Total Metals Digestion	Completed				04/29/19	AG	

Project ID: NEW HAVEN STORMWATER

Client ID: 0126

Phoenix I.D.: CD02279

Parameter Result PQL

Dilution

Units

Date/Time

By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

May 03, 2019

FOR: Attn: Mr. Luke Whitehouse

ATC Associates

see "By" below

LB

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: Location Code:

P.O.#:

STORM WATER ATC-EHDAS

Rush Request: Stand

Standard

**Laboratory Data** 

**Custody Information** 

Collected by:

Received by:

Analyzed by:

SDG ID: GCD02275

**Time** 

11:30

14:02

Phoenix ID: CD02280

<u>Date</u>

04/26/19

04/26/19

Project ID: NEW HAVEN STORMWATER

Client ID: 0127

Daganatas	<b>5</b> . "	RL/		<b></b>		_	
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	04/30/19	CPP	SW6010D
Hardness (CaCO3)	69.8	0.1	mg/L	1	04/30/19		E200.7
Escherichia Coli	703	10	MPN/100 mls	10	04/26/19 15:50 N	/LT/KDE	3 SM9223B-04
Enterococci Bacteria	1170	10	MPN/100 mls	10	04/26/19 15:55 N	/LT/KDE	3 Enterolert
Fecal Coliforms MPN	24200	10	MPN/100 mls	10	04/26/19 15:55 N	/LT/KDE	3 Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	04/26/19 15:50 N	/LT/KDE	3 SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 19:00	0	SM4500CI-G-00
C.O.D.	20	10	mg/L	1	04/27/19	DA	SM5220D-11
Conductivity	254	5.00	umhos/cm	1	04/27/19	RR/EG	SM2510B-11
MBAS	0.09	0.05	mg/L	1	04/27/19 09:19	EG	SM5540 C-11
Ammonia as Nitrogen	0.18	0.05	mg/L	1	05/01/19	KDB	E350.1
Nitrite-N	0.015	0.010	mg/L	1	04/26/19 19:57	TB	E353.2
Nitrate-N	1.31	0.02	mg/L	1	04/26/19 19:57	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	04/30/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.12	0.10	mg/L	1	05/01/19	KDB	E351.1
Phosphorus, as P	0.114	0.010	mg/L	1	05/01/19	JR	SM4500PE-11
Total Suspended Solids	< 5.0	5.0	mg/L	1	04/29/19	BJA/EG	SM2540D-11
Turbidity	4.44	0.20	NTU	1	04/26/19 17:59	RWR	SM2130B-11
Total Metals Digestion	Completed				04/29/19	AG	

Project ID: NEW HAVEN STORMWATER

Client ID: 0127

N STORMWATER Phoenix I.D.: CD02280

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

May 03, 2019

FOR: Attn: Mr. Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:04/26/1910:30Location Code:ATC-EHDASReceived by:LB04/26/1914:02

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GCD02275 Phoenix ID: CD02281

Project ID: NEW HAVEN STORMWATER

Client ID: 0128

<b>.</b>		RL/				
Parameter	Result	PQL	Units	Dilution	Date/Time I	By Reference
Boron	0.07	0.05	mg/L	1	04/30/19	CPP SW6010D
Hardness (CaCO3)	77.9	0.1	mg/L	1	04/30/19	E200.7
Escherichia Coli	218	10	MPN/100 mls	10	04/26/19 15:50 ML	T/KDB SM9223B-04
Enterococci Bacteria	1070	10	MPN/100 mls	10	04/26/19 15:55 ML	T/KDB Enterolert
Fecal Coliforms MPN	98	10	MPN/100 mls	10	04/26/19 15:55 ML	T/KDB Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	04/26/19 15:50 ML	T/KDB SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	04/26/19 19:01	O SM4500CI-G-00
C.O.D.	69	10	mg/L	1	04/27/19	DA SM5220D-11
Conductivity	578	5.00	umhos/cm	1	04/27/19 RF	R/EG SM2510B-11
MBAS	0.13	0.05	mg/L	1	04/27/19 09:19 I	EG SM5540 C-11
Ammonia as Nitrogen	0.11	0.10	mg/L	2	05/01/19 K	(DB E350.1
Nitrite-N	0.011	0.010	mg/L	1	04/26/19 20:00	TB E353.2
Nitrate-N	0.29	0.02	mg/L	1	04/26/19 20:00	TB E353.2
Oil and Grease by EPA 1664	< 1.5	1.5	mg/L	1.1	04/30/19 N	/ISF E1664A
Salinity	< 0.5	0.5	ppt	1	05/02/19	AP SM2520B-10
Nitrogen Tot Kjeldahl	0.67	0.20	mg/L	2	05/01/19 K	(DB E351.1
Phosphorus, as P	0.248	0.010	mg/L	1	05/01/19	JR SM4500PE-11
Total Suspended Solids	26	5.0	mg/L	1	04/30/19 E	BJA SM2540D-11
Turbidity	11.0	0.20	NTU	1	04/26/19 17:59 R	WR SM2130B-11
Total Metals Digestion	Completed					AG

Project ID: NEW HAVEN STORMWATER

Client ID: 0128

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 03, 2019

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: CD02281



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 03, 2019

QA/QC Data

SDG I.D.: GCD02275

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 476804 (mg/L), C	C Samp	ole No:	CD02266	(CD022	75, CD	02276,	CD022	77, CD(	02278,	CD0227	79, CD	02280,	CD02281)
ICP Metals - Aqueous													•
Boron	BRL	0.05	0.10	0.10	NC	101			98.8			75 - 125	20



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

May 03, 2019

QA/QC Data

SDG I.D.: GCD02275

Parameter			Blk	Sample	Dup	Dup	LCS	LCSD	LCS	MS	MSD	MS	%	%
Oil and Grease by EPA 1664A   BRL   1.4	Parameter	Blank											Rec Limits	RPD Limits
Oil and Grease by EPA 1664A   BRL   1.4	QA/QC Batch 476901 (mg/L), Q	C Samp	ole No:	CD02057	(CD022	75, CD	02276,	CD022	77, CD(	02278,	CD0227	'9. CD(	)2280. (	CD02281)
Additional: MS acceptance rampe 75-125%.  CAVICC Batch 476597 (NTU), QC Sample No: CD02088 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  BRL 0.20	Oil and Grease by EPA 1664A									•		,		•
QA/QC Batch 476597 (NTU), QC Sample No: CD02088 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281) Turbidity 8RL 0.00														
Turbidity BRL 0.20 <0.20 <0.20 <0.20 104  85.115 20  AVACC Batch 476670 (umhos/cm), AC Sample No: CDU2/128 (CDU2/275; CDU2/276, CDU2/277, CDU2/278, CDU2/279, CDU2/27	-													
QA/QC Batch 476670 (umhos/cm), QC Sample No: CD02128 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Conductivity BRL 5.00 313 326 4.10 97.7 85 -115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125w.  CA/QC Batch 476744 (mg/L), QC Sample No: CD02201 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Total Suspended Solids BRL 5.0 5.0 4.0 NC 99.0 85 -115 20  QA/QC Batch 477093 (mg/L), QC Sample No: CD02206 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Phosphorus, as P BRL 0.01 0.031 0.038 NC 107 103 85 -115 20  COmment:  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476674 (mg/L), QC Sample No: CD02266 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  CO.D. BRL 10 46 39 NC 104 100 85 - 115 20  COmment:  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476684 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Comment:  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476688 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476688 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476699 (mg/L), QC Sample No: CD02281 (CD02281)  Additional criteria matrix spike acceptance range is 75-125w.  QA/QC Batch 476699 (mg/L), QC Sample No: CD02281 (CD02275, CD02277, CD02278, CD02279,				CD02088				CD0227	77, CD0	2278,	CD0227	9, CD0		CD02281)
Conductivity BRL 5.00 313 326 4.10 97.7	•							0070 0						
Comment:  Additional criteria matrix spike acceptance range is 57-1258.  QA/QC Batch 476744 (mg/L), QC Sample No: CD02211 (CD02275; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Total Suspended Solids BRL 5.0 5.0 5.0 45.0 NC 99.0 85-115 20  QA/QC Batch 477093 (mg/L), QC Sample No: CD02260 (CD02275; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Phosphorus, as P BRL 0.01 0.031 0.038 NC 107 103 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 57-1258.  QA/QC Batch 476674 (mg/L), QC Sample No: CD02266 (CD02275; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  CO.D. BRL 10 46 39 NC 104 100 85-115 20  COmment:  Additional criteria matrix spike acceptance range is 57-1258.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Additional criteria matrix spike acceptance range is 57-1258.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 57-1258.  QA/QC Batch 476688 (mg/L), QC Sample No: CD02322 (CD02277; CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Total Suspended Solids BRL 0.0 1 0	CD02281)	iii), QC	Sample	e No: CDU	12 128 (C	D02275	o, CD0	22/6, CI	J02277	, CD02	2278, CE	002279	), CD022	280,
CAYOC Batch 476744 (mg/L)	•	BRL	5.00	313	326	4.10	97.7						85 - 115	20
Total Suspended Solids	Additional criteria matrix spike acco	eptance	range is	75-125%.										
Total Suspended Solids	QA/QC Batch 476744 (mg/L), Q	C Samp	le No:	CD02201	(CD022	75, CD	02276,	CD022	77, CD0	)2278,	CD0227	9, CD0	)2280)	
Phosphorus, as P BRL 0.01 0.031 0.038 NC 107 103 85-115 20 Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476674 (mg/L), QC Sample No: CD02266 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  C.O.D. BRL 10 46 39 NC 104 100 85-115 20 Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD020257 (CD02275, CD02276, CD02277, CD02278, CD02278, CD02279)  Nitrate-N BRL 0.01 <0.01 <0.01 <0.01 NC 103 99.6 90.110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02281, CD02281)  Nitrate-N BRL 0.01 <0.01 <0.01 <0.01 NC 103 99.1 90.110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02281, CD02281)  Nitrate-N BRL 0.01 0.015 0.02 NC 104 106 90.110 20  QA/QC Batch 476694 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.01 0.185 1.95 5.30 103 87.0 85.115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 4766900 (mg/L), QC Sample No: CD022878 (CD02277, CD02278, CD02280, CD02281)	Total Suspended Solids	BRL	5.0	5.0	<5.0	NC	99.0						85 - 115	
Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476674 (mg/L), QC Sample No: CD02266 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  C.O.D. BRL 10 46 39 NC 104 100 85 - 115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85 - 115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85 - 115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 < 5.0 < 5.0 NC 90.0 85 - 115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02278)  Nitrate-N BRL 0.01 0.01 0.01 0.01 NC 103 99.6 90.110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90.110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD02179 (CD02275, CD02281)  Nitrate-N BRL 0.01 0.015 0.02 NC 104 106 90.110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90.110 20  Nitrogen Tot Kjeldahl BRL 0.0 1.85 1.95 5.30 103 87.0 85.0110 20  Nitrogen Tot Kjeldahl BRL 0.05 0.06 0.07 NC 94.1 96.1 90.110 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02280, CD02281)	QA/QC Batch 477093 (mg/L), Q	C Samp	le No:	CD02260	(CD022	75, CD	02276,	CD022	77, CD0	)2278,	CD0227	9, CD0	)2280, (	CD02281)
QA/QC Batch 476674 (mg/L), QC Sample No: CD02266 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02280, CD02281)  C.O.D. BRL 10 46 39 NC 104 100 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02325 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02280, CD02281)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.6 90-110 20  QA/QC Batch 476694 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02275, CD02278, CD02280, CD02281)  Ammonia as Nitrogen BRL 0.10 1.85 1.95 5.30 103 87.0 85.115 20  COmment:  TKN is reported as Organic Nitrogen in the Blank LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD01790 (CD02277, CD02278, CD02280, CD02280, CD02281)	· ·	BRL	0.01	0.031	0.038	NC	107			103			85 - 115	20
C.O.D. O BRL 10 46 39 NC 104 100 85 - 115 20 Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85 - 115 20 S5 - 115 20 Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85 - 115 20 S5 - 115 20 S	Additional criteria matrix spike acce	eptance	range is	75-125%.										
Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02278)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  Nitritae a Nitrogen BRL 0.01 0.01 <0.01  <0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  QA/QC Batch 476694 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  QA/QC Batch 476690 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02280, CD02280, CD02281)	QA/QC Batch 476674 (mg/L), Q	C Samp	le No:	CD02266	(CD022	75, CD	02276,	CD022	77, CD0	)2278,	CD0227	9, CD0	2280, 0	CD02281)
Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85-115 20  Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 <0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrate-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD02280 (CD02280, CD02280)  Nitrate-N BRL 0.01 1.85 1.95 5.30 103 87.0 85-115 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD02275 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)		BRL	10	46	39	NC	104			100			85 - 115	20
QA/QC Batch 476644 (mg/L), QC Sample No: CD02281 (CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281)  MBAS BRL 0.05 0.13 0.12 NC 107 112 85 - 115 20  Comment:  Additional criteria matrix spike acceptance range is 75 - 125 %.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85 - 115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90 - 110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 NC 103 107 99.1 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90 - 110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90 - 110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90 - 110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90 - 110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85 - 115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)				75 4050/										
MBAS Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0  85 - 115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90.110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 <0.01 NC 103 107 90.110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90.110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90.110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90.110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85.115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02280, CD02281)	·	•	•		(00000	75 00	20070	00000						
Comment:  Additional criteria matrix spike acceptance range is 75-125%.  QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02280, CD02281)	MBAS							CD022.	//, CD0		CD0227	9, CD0		•
QA/QC Batch 476888 (mg/L), QC Sample No: CD02322 (CD02281)  Total Suspended Solids BRL 5.0 < 5.0		5,12	0.00	0.10	0.12	140	107			112			85 - 115	20
Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	Additional criteria matrix spike acce	eptance i	range is	75-125%.										
Total Suspended Solids BRL 5.0 <5.0 <5.0 NC 90.0 85-115 20  QA/QC Batch 476599 (mg/L), QC Sample No: CD02057 (CD02275, CD02276, CD02277, CD02278, CD02279)  Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20  Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	QA/QC Batch 476888 (mg/L), Q	C Samp	le No:	CD02322	(CD022	81)								
Nitrate-N BRL 0.02 1.03 1.02 1.00 103 99.6 90-110 20 Nitrite as Nitrogen BRL 0.01 <-0.01 -0.01 NC 103 107 90-110 20  QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281) Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276) Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20 Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20 Comment: TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	Total Suspended Solids						90.0						85 - 115	20
Nitrite as Nitrogen BRL 0.01 <0.01 <0.01 NC 103 107 90-110 20 QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20 Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20 QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20 Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20 Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	QA/QC Batch 476599 (mg/L), Q	C Samp	le No:	CD02057	(CD022	75, CD(	02276,	CD0227	77, CD0	2278,	CD0227	9)		
QA/QC Batch 476625 (mg/L), QC Sample No: CD02280 (CD02280, CD02281)  Nitrate-N BRL 0.02 1.31 1.30 0.80 103 99.1 90-110 20  Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20  QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)										99.6			90 - 110	20
Nitrate-N    BRL   0.02   1.31   1.30   0.80   103   99.1   90 - 110   20     Nitrite-N   BRL   0.01   0.015   0.02   NC   104   106   90 - 110   20     QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)   Ammonia as Nitrogen   BRL   0.05   0.06   0.07   NC   94.1   96.1   90 - 110   20     Nitrogen Tot Kjeldahl   BRL   0.10   1.85   1.95   5.30   103   87.0   85 - 115   20     Comment:   TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.   QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	•									107			90 - 110	20
Nitrite-N BRL 0.01 0.015 0.02 NC 104 106 90-110 20 QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20 Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20 Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)							•							
QA/QC Batch 476794 (mg/L), QC Sample No: CD01790 (CD02275, CD02276)  Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90-110 20  Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20  Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)														
Ammonia as Nitrogen BRL 0.05 0.06 0.07 NC 94.1 96.1 90 - 110 20 Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85 - 115 20 Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)										100			90 - 110	20
Nitrogen Tot Kjeldahl BRL 0.10 1.85 1.95 5.30 103 87.0 85-115 20 Comment:  TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	Ammonia as Nitrogen									96.1			00 110	20
TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.  QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)	Nitrogen Tot Kjeldahl	BRL												
QA/QC Batch 476900 (mg/L), QC Sample No: CD02278 (CD02277, CD02278, CD02279, CD02280, CD02281)		n in the	Blank I	CS DUP a	and MS									
Ammania as Nitrasas DDI COM COM COM						77 CD0	פרככו	CDOSS	10 CD0	1220A 4		11		
Ammonia as Nitrogen BRL 0.05 0.17 0.16 NC 96.3 102 90 - 110 20	Ammonia as Nitrogen	BRL	0.05	0.17	0.16	NC	96.3	000227	J, UDU		UUU228	1)	90 - 110	20

## QA/QC Data

SDG I.D.: GCD02275

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Nitrogen Tot Kjeldahl Comment:	BRL	0.10	0.59	0.51	14.5	93.3			100			85 - 115	20
TKN is reported as Organic Nitroge	n in the	Blank, L	.CS, DUP a	and MS.									
QA/QC Batch 476601 (mg/L), Q0	C Samp	le No:	CD02042	(CD022	75, CD	02276,	CD022	77, CD(	02278,	CD0227	79)		
Chlorine Residual	BRL	0.02	<0.02	<0.02	NC	99.6					,		
QA/QC Batch 476604 (mg/L), QC Chlorine Residual	C Samp BRL	le No: 0.02	CD02280 <0.02	(CD022 <0.02	80, CD NC	02281) 105							

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

May 03, 2019

Sample Criteria Exceedances Report

GCD02275 - ATC-EHDAS

Analysis Units RL Critería Criteria R Result Criteria Phoenix Analyte Acode State: CT

\*\*\* No Data to Display \*\*\*

SampNo

Friday, May 03, 2019

Criteria: None

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



# REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc.

Client: ATC Associates

Project Location:

**NEW HAVEN STORMWATER** 

Project Number:

Laboratory Sample ID(s): CD02275-CD02281

**Sampling Date(s):** 4/26/2019

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes □ No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes □ No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☐ Yes ☑ No
5	a) Were reporting limits specified or referenced on the chain-of-custody?	☐ Yes ☑ No
	b) Were these reporting limits met?	✓ Yes □ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes 🗹 No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

knowledge and belief	est under the pains and penalt and based upon my personal in l in this analytical report, such	nquiry of t	hose responsible for providing the
Authorized Signature	: Rashui waxol	Position:	Project Manager
	nmi Makol		Friday, May 03, 2019
Name of Laboratory	Phoenix Environmental Labs, Inc.		

This certification form is to be used for RCP methods only.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

May 03, 2019

SDG I.D.: GCD02275

#### SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only Boron is reported as requested on the chain of custody.

#### Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes,

#### Instrument:

#### BECKMAN DU720 #2 05/01/19-1 Jean Rawling, Chemist 05/01/19

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

#### BECKMAN DU720 04/27/19-1 Eric Geyer, Chemist 04/27/19

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

#### HACH DR 5000 04/27/19-1 Derek Allard, Chemist 04/27/19

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

#### QC (Batch Specific):

#### Batch 476597 (CD02088)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 476670 (CD02128)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 476674 (CD02266)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 476744 (CD02201)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 476888 (CD02322)

CD02281



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# RCP Certification Report

May 03, 2019

SDG I.D.: GCD02275

#### Wet Chemistry Analysis

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 476901 (CD02057)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All LCSD recoveries were within 85 - 115 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

Additional: MS acceptance range 75-125%.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 477093 (CD02260)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### QC (Site Specific):

#### Batch 476644 (CD02281)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

#### ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### Instrument:

#### BLUE 04/30/19 09:01

Cindy Pearce, Chemist 04/30/19

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

#### QC (Batch Specific):

#### Batch 476804 (CD02266)

CD02275, CD02276, CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 75 - 125 with the following exceptions: None.

#### LACHAT



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

May 03, 2019

SDG I.D.: GCD02275

#### **LACHAT**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

LACHAT 04/26/19-1

Thomas Budz, Chemist 04/26/19

CD02275, CD02276, CD02277, CD02278, CD02279

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

LACHAT 04/26/19-2

Thomas Budz, Chemist 04/26/19

CD02280, CD02281

The initial calibration met all criteria including a standard run at the reporting level. All method verification standards and blanks met criteria.

#### QC (Batch Specific):

#### Batch 476599 (CD02057)

CD02275, CD02276, CD02277, CD02278, CD02279

All LCS recoveries were within 90 - 110 with the following exceptions: None.

#### QC (Site Specific):

#### Batch 476625 (CD02280)

CD02280, CD02281

All LCS recoveries were within 90 - 110 with the following exceptions: None.

All MS recoveries were within 90 - 110 with the following exceptions: None.

#### **NITROGEN**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

#### LACHAT 04/30/19-1

Kandi Della Bella, Chemist 04/30/19

CD02275, CD02276

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

#### LACHAT 05/01/19-1

Kandi Della Bella, Chemist 05/01/19

CD02277, CD02278, CD02279, CD02280, CD02281

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

#### QC (Batch Specific):

Batch 476794 (CD01790)



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

May 03, 2019

SDG I.D.: GCD02275

#### **NITROGEN**

CD02275, CD02276

All LCS recoveries were within 85 - 115 with the following exceptions: None. TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

### QC (Site Specific):

#### Batch 476900 (CD02278)

CD02277, CD02278, CD02279, CD02280, CD02281

All LCS recoveries were within 85 - 115 with the following exceptions: None. All MS recoveries were within 75 - 125 with the following exceptions: None. TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

#### **Temperature Narration**

The samples were received at 5.9C with cooling initiated. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Table   Chain OF CUSTODY RECORD   Table   Data Dall	Set East Middle Tumpike, P.O. Box 370, Manchester, CT 08040     Final info@phoemidats com Fax (860) 645-0823     Final Services (860) 645-0823     Final info@phoemidats com Fax (860)	CHAIN OF CUSTODY RECORD  Say East Middle Tumpike, P.O. Box 370, Manchester, CT 06040  Email: info@phoenixlabs.com Fax (860) 645-0823  Client Services (860) 645-8736  Project: Report to: Luke Witter Witter Sampled  OUOTE # CT DAS Real tes  OUOTE #	C Pg of ntact Options:	nouse@ateys.com	This section MUST be completed with Bottle Quantities.	1807 (1808) 1809 (1809) 1809 (1809)	ANIA CONIL		16	18	61	6 6	rd			Data Format  Excel  GIS/Key  GIS/Key  Data Package  Tier II Checklist  Full Data Package  Full Data Str Report
Time:   Columb   Co	Set East Middle Tumpike, P.O. Box 370, Manchester, CT 08040     Final: Info@phoemidabs com Fax (860) 645-0823     Final: Info@phoemidabs com Fax	CHAIN OF CUSTODY RECORD   S97 East Middle Tumpike, P.O. Box 370, Manchester, CT 66040   Email: info@phoenklabs com Fax (860) 645-9726   Services   S60   645-9726   Services   Services   S60   645-9726   Services   Serv	Temp5-7 ° C Pg of Data Delivery/Contact Options:	Fax: Phone: Email: Luke: Whitel	Project F	A TOLE SE	67/40 g	4		- - - 人	寸.	٦.	-	>		GW2 \$\begin{array}{c} \begin{array}{c} \
Sat Email: info@phoenixlabs.com Fax (Senderntial) Marker Set Middle Tumpike, P.O. Box 370, Marker Set Middle Tumpike, P.O. Box 370, Marker Set Water Report to: Laker Complete	Sample Date We'vipe Sample Autrix Sample Date Watrix Sampled We'vipe Sample Date We'vipe Sampled We'vipe Sampl	Sample Date: 4. 26-17  Sample Sample Sample Substitution H. 26-17  Substitution Date: 4. 26-17  Substit	CORD		w Haven Litehous Routes	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	7000									
Set Email: infe Email: infe Oll = Oil   Cl   Cl   Cl   Cl   Cl   Cl   Cl	Sample Date We'vipe Sample Autrix Sample Date Watrix Sampled We'vipe Sample Date We'vipe Sampled We'vipe Sampl	Sample Date: 4. 26-17  Sample Sample Sample Substitution H. 26-17  Substitution Date: 4. 26-17  Substit	IN OF CUSTODY RE	e Tumpike, P.O. Box 370, Mar Agphoenixlabs.com Fax (8 ient Services (860) 645	I THE	3.20 1.										<u>ම</u>
	Services Services Sample Date Matrix Sample Sample Supple	TC Grave Services  Age Refer to the Mater Surface Water Water Surface Water Water Water Water Water Water Water Water Surface Water Water Surface Water Water Surface Water Water Surface Water Water Cother)  Customer Sample - Information	CHA	587 East Middl Email: info	17	<u> </u>	Time	1401	04,0	0000	0 000		7 8			4β4   9   10   10   10   10   10   10   10



Thursday, June 27, 2019

Attn: Luke Whitehouse **ATC Associates** 290 Roberts St., Suite 301 East Hartford, CT 06108

Project ID:

NH MS-4

SDG ID:

GCD37405

Sample ID#s: CD37405 - CD37408

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618

MA Lab Registration #M-CT007 ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301

PA Lab Registration #68-03530

RI Lab Registration #63

UT Lab Registration #CT00007

VT Lab Registration #VT11301



587 East Middle Tumpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **SDG Comments**

June 27, 2019

SDG I.D.: GCD37405

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

June 27, 2019

SDG I.D.: GCD37405

Project ID: NH MS-4

Client Id	Lab Id	Matrix
0133	CD37405	STORM WATER
0134	CD37406	STORM WATER
0129	CD37407	STORM WATER
081	CD37408	STORM WATER



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

June 27, 2019

FOR:

Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EH

Rush Request:

Standard

P.O.#:

**Custody Information** 

Collected by: Received by:

Analyzed by:

NH MS-4

<u>Date</u> 06/18/19 06/18/19 <u>Time</u> 13:00

CP

- 1175 117 1

17:28

see "By" below

**Laboratory Data** 

SDG ID: GCD37405

Phoenix ID: CD37405

Project ID:

NH MS-4

0133

Client ID:

Parameter	5 "	RL/		_			
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	0.07	0.05	mg/L	1	06/26/19	CPP	SW6010D
Hardness (CaCO3)	65.6	0.1	mg/L	1	06/27/19		E200.7
Escherichia Coli	211	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SM9223B-04
Enterococci Bacteria	657	10	MPN/100 mls	10	06/18/19 18:45	LJ/LJ	Enterolert
Fecal Coliforms MPN	546	10	MPN/100 mls	10	06/18/19 18:40	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	06/18/19 20:02	0	SM4500CI-G-00
C.O.D.	123	10	mg/L	1	06/20/19	DA/BJA	SM5220D-11
Conductivity	525	5.00	umhos/cm	1	06/19/19	RR/EG	SM2510B-11
MBAS	0.07	0.05	mg/L	1	06/20/19 02:07	s	SM5540 C-11
Ammonia as Nitrogen	< 0.25	0.25	mg/L	5	06/21/19	KDB	E350.1
Nitrite-N	0.059	0.010	mg/L	1	06/18/19 20:48	TB	E353.2
Nitrate-N	0.26	0.02	mg/L	1	06/18/19 20:48	ТВ	E353.2
Oil and Grease by EPA 1664	7.5	1.4	mg/L	1	06/22/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	06/20/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.87	0.50	mg/L	5	06/21/19	KDB	E351.1
Phosphorus, as P	0.376	0.020	mg/L	2	06/19/19	MI	SM4500PE-11
Total Suspended Solids	550	17	mg/L	3.3	06/20/19 E	ALB/DME	SM2540D-11
Turbidity	445	0.20	NTU	1	06/18/19 20:21		SM2130B-11
Total Metals Digestion	Completed				06/25/19	AG	7005 11

Project ID: NH MS-4 Client ID: 0133

Phoenix I.D.: CD37405

RL/
Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

June 27, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

June 27, 2019

FOR:

Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EH

Rush Request:

Standard

P.O.#:

Custody Information

Collected by:

NH MS-4

06/18/19

<u>Date</u>

<u>Time</u> 13:53

Received by:

CP

06/18/19

17:28

Analyzed by: see "By" below

Laboratory Data

SDG ID: GCD37405

Phoenix ID: CD37406

Project ID:

NH MS-4

Client ID:

0134

D		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	06/26/19	CPP	SW6010D
Hardness (CaCO3)	29.6	0.1	mg/L	1	06/27/19		E200.7
Escherichia Coli	3260	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SM9223B-04
Enterococci Bacteria	8660	10	MPN/100 mls	10	06/18/19 18:45	LJ/LJ	Enterolert
Fecal Coliforms MPN	3650	10	MPN/100 mls	10	06/18/19 18:40	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	06/18/19 20:03	0	SM4500CI-G-00
C.O.D.	154	10	mg/L	1	06/20/19	DA/BJA	SM5220D-11
Conductivity	60	5.00	umhos/cm	1	06/19/19	RR/EG	SM2510B-11
MBAS	0.21	0.05	mg/L	1	06/20/19 02:08	s	SM5540 C-11
Ammonia as Nitrogen	< 0.25	0.25	mg/L	5	06/21/19	KDB	E350.1
Nitrite-N	0.021	0.010	mg/L	1	06/18/19 20:49	TB	E353.2
Nitrate-N	0.26	0.02	mg/L	1	06/18/19 20:49	TB	E353.2
Oil and Grease by EPA 1664	12	1.4	mg/L	1	06/22/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	06/20/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	2.10	0.50	mg/L	5	06/21/19	KDB	E351.1
Phosphorus, as P	0.345	0.020	mg/L	2	06/19/19	MI	SM4500PE-11
Total Suspended Solids	100	5.0	mg/L	1	06/20/19	BMD/BJA	SM2540D-11
Turbidity	113	0.20	NTU	1	06/18/19 20:21	RWR	SM2130B-11
Total Metals Digestion	Completed				06/25/19	AG	

Project ID: NH MS-4 Client ID: 0134

Phoenix I.D.: CD37406

RL/
Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

June 27, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

June 27, 2019

FOR:

Attn: Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EH

Rush Request:

Standard

P.O.#:

**Custody Information** 

Collected by: Received by:

NH MS-4

<u>Date</u> 06/18/19 Time 14:19

CP

06/18/19

17:28

Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GCD37405

Phoenix ID: CD37407

Project ID:

NH MS-4

Client ID:

0129

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	06/26/19	CPP	SW6010D
Hardness (CaCO3)	6.4	0.1	mg/L	1	06/27/19	0	E200.7
Escherichia Coli	537	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SM9223B-04
Enterococci Bacteria	988	10	MPN/100 mls	10	06/18/19 18:45	LJ/LJ	Enterolert
Fecal Coliforms MPN	437	10	MPN/100 mls	10	06/18/19 18:40	LJ/LJ	Colilert-18
Total Coliforms	24200	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	06/18/19 20:04	0	SM4500CI-G-00
C.O.D.	14	10	mg/L	1	06/20/19		SM5220D-11
Conductivity	19	5.00	umhos/cm	1	06/19/19		SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	06/20/19 02:08	s	SM5540 C-11
Ammonia as Nitrogen	0.12	0.05	mg/L	1	06/21/19	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	06/18/19 20:38	ТВ	E353.2
Nitrate-N	0.15	0.02	mg/L	1	06/18/19 20:38	ТВ	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	06/22/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	06/20/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.29	0.10	mg/L	1	06/21/19	KDB	E351.1
Phosphorus, as P	0.047	0.010	mg/L	1	06/19/19	MI	SM4500PE-11
Total Suspended Solids	25	5.0	mg/L	1	06/20/19	BMD/BJA	SM2540D-11
Turbidity	18.7	0.20	NTU	1	06/18/19 20:21	RWR	SM2130B-11
Total Metals Digestion	Completed				06/25/19	AG	11

Project ID: NH MS-4 Client ID: 0129

Phoenix I.D.: CD37407

RL/ Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

June 27, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

June 27, 2019

FOR: Attn: Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EH

Rush Request:

Standard

P.O.#:

**Custody Information** 

Collected by: NH MS-4 Received by:

CP

06/18/19

<u>Date</u>

<u>Time</u> 14:58

06/18/19

17:28

Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GCD37405

Phoenix ID: CD37408

Project ID:

NH MS-4

081

Client ID:

_		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	06/26/19	CPP	SW6010D
Hardness (CaCO3)	11.4	0.1	mg/L	1	06/27/19		E200.7
Escherichia Coli	2060	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SM9223B-04
Enterococci Bacteria	9210	10	MPN/100 mls	10	06/18/19 18:45	LJ/LJ	Enterolert
Fecal Coliforms MPN	934	10	MPN/100 mls	10	06/18/19 18:40	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	06/18/19 18:50	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	06/18/19 20:05	0	SM4500CI-G-00
C.O.D.	16	10	mg/L	1	06/20/19	DA/BJA	SM5220D-11
Conductivity	42	5.00	umhos/cm	1	06/19/19	RR/EG	SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	06/20/19 02:09	s	SM5540 C-11
Ammonia as Nitrogen	0.13	0.05	mg/L	1	06/21/19	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	06/18/19 20:50	ТВ	E353.2
Nitrate-N	0.13	0.02	mg/L	1	06/18/19 20:50	тв	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	06/22/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	06/20/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.63	0.10	mg/L	1	06/21/19	KDB	E351.1
Phosphorus, as P	0.072	0.010	mg/L	1	06/19/19	MI	SM4500PE-11
Total Suspended Solids	8.0	5.0	mg/L	1	06/20/19	BMD/BJA	SM2540D-11
Turbidity	8.88	0.20	NTU	1	06/18/19 20:21	RWR	SM2130B-11
Total Metals Digestion	Completed				06/25/19	AG	5

Project ID: NH MS-4
Client ID: 081
Phoenix I.D.: CD37408

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

June 27, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

June 27, 2019

# QA/QC Data

SDG	ID.	GCD37405
SUG	1.1.7	しょし しょうきん 40つ

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 485003 (mg/L), (	QC Samp	ole No:	CD40372	(CD374	05, CD	37406,	CD3740	07, CD3	37408)				
ICP Metals - Aqueous													
Boron	BRL	0.05	0.21	0.22	NC	101	102	1.0	103			75 - 125	20



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

June 27, 2019

## QA/QC Data

SDG I.D.: GCD37405

Parameter	Blank	Bik RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 483955 (NTU), Q					05, CD3	37406,	CD3740	7, CD3	7408)				
Turbidity	BRL	0.20	65.3	65.9	0.90	111						85 - 115	20
QA/QC Batch 484322 (mg/L), Q							CD3740	07, CD3	37408)				
C.O.D. Comment:	BRL	10	144	144	0	102			93.6			85 - 115	20
Additional criteria matrix spike acc	eptance	range is	75-125%.										
QA/QC Batch 484134 (mg/L), Q	C Samp	ole No:	CD37108	(CD374	05, CD	37406,	CD3740	7, CD3	37408)				
MBAS Comment:	BRL	0.05	<0.05	<0.05	NC	103			100			85 - 115	20
Additional criteria matrix spike acco	eptance	range is	75-125%.										
QA/QC Batch 484062 (umhos/c	m), QC	Sample	No: CD3	7139 (C	D37405	5, CD3	7406, CI	037407	, CD37-	408)			
Conductivity Comment:	BRL	5.00	1550	1560	0.60	102				,		85 - 115	20
Additional criteria matrix spike acce	eptance	range is	75-125%.										
QA/QC Batch 484622 (mg/L), Q	C Samp	le No:	CD37188	(CD374	05, CD:	37406,	CD3740	7. CD3	37408)				
Oil and Grease by EPA 1664A Comment:	BRL	1.4		•		98.0	97.0	1.0	,			85 - 115	20
Additional: MS acceptance range	75-125%	).											
QA/QC Batch 484246 (mg/L), Q	C Samp	le No:	CD37219	(CD374	05, CD:	37406,	CD3740	7. CD3	37408)				
Total Suspended Solids	BRL	5.0	2800	2700	3.60	90.0		,	/			85 - 115	20
QA/QC Batch 484082 (mg/L), Q	C Samp	le No:	CD37222	(CD374	05, CD	37406,	CD3740	7, CD3	37408)				
Phosphorus, as P Comment:	BRL	0.01	3.87	3.87	0	98.6			96.6			85 - 115	20
Additional criteria matrix spike acce	eptance	range is	75-125%.										
QA/QC Batch 483964 (mg/L), Q	C Samp	le No:	CD37407	(CD374	05, CD:	37406,	CD3740	7. CD3	37408)				
Nitrate-N	BRL	0.02	0.15	0.15	0	102		.,	104			90 - 110	20
Nitrite-N	BRL	0.01	<0.010	<0.01	NC	100			106			90 - 110	20
QA/QC Batch 484260 (mg/L), Q	C Samp	le No:	CD37224	(CD374	05, CD	37406,	CD3740	7, CD3	37408)				
Ammonia as Nitrogen	BRL	0.05	<0.05	<0.05	NC	102			92.5			90 - 110	20
Nitrogen Tot Kjeldahl Comment:	BRL	0.10	0.83	0.91	9.20	99.3			96.3			85 - 115	20
TKN is reported as Organic Nitroge	en in the	Blank, L	.CS, DUP a	and MS.									
QA/QC Batch 483951 (mg/L), Q					05, CD3	37406.	CD3740	7. CD3	7408)				
Chlorine Residual	BRL	0.02	<0.02	<0.02	NC	105		,	/				

## QA/QC Data

SDG I.D.: GCD37405

% RPD % Blk Sample Dup Dup LCS LCSD LCS MS MSD MS Rec Blank RL Parameter Result Result RPD RPD % % RPD Limits Limits

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

June 27, 2019

Thursday, June 27, 2019

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

GCD37405 - ATC-EH

Phoenix Analyte

SampNo Acode
\*\*\* No Data to Display \*\*\*

Criteria

껖 Result

Analysis Units

RL Criteria

Criteria

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc. 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **Analysis Comments**

June 27, 2019

SDG I.D.: GCD37405

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

CHAIN OF CUSTODY  Final Laboratories, Inc.  Final: info@thoenivabs com Figure Surface (860)  Figure Sample - Information - Identification  Council Sample - Information - Identification  Council Sample - Information - Identification  Següment Str-Surface Water WW-Waste Water Següment Str-Surface Water Següment S	Coolant: IPK   ICE   No	Temp <b>[O.Q.</b> C Pg of	Data Delivery/Contact Options:	Phone:	Design to the Art of t	MOSCAM This section MIST he		Bottle Quantities.		No Control Control	1000 000 00 00 00 00 00 00 00 00 00 00 0	1140 1140 1140 1140 1140 1140 1140 1140	Sug III	000000000000000000000000000000000000000	67								MCP Certification Excel			S-1 GW-1	S-3 GW-1 S-3 GW-2 S-3 GW-3 Phoenix Std Report	\ <u>\</u>
Date & Date Sample Samp		HAIN OF COSTODY RECORD	diddle Tumpike, P.O. Box 370, Manchester, CT 06040	I: info@phoenixiabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Droigot: 111 AAC-1	7	ATC.	QUOTE#				1000			X	XXXXX	XXXXXXX					I CI	(Residential)	WO	م م	ege D		
Environmer Customer: Address: Sampler's Signature But Lelquid X= SAMPLE # S				s, Inc.	2	10 KODYTS KING	HEARCA CT		Clent Sample - Information - Identification	Date: 6-	GW=Ground Water SW=Surface Water W	* Storment St. Sudde Secon SD-Solid W=Wipe OIL=Oil	Sample Date	Matrix Sampled	\ \ \ \	, ×	> ×				/	Date:	<u>2</u>		equirements or Reculations:			Standar Standar Standar S



Monday, December 23, 2019

Attn: Luke Whitehouse ATC Associates 290 Roberts St., Suite 301 East Hartford, CT 06108

Project ID: NEW HAVEN STORMWATER

**SDG ID:** GCE83117

Sample ID#s: CE83117 - CE83129

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phvllis/Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

December 23, 2019

SDG I.D.: GCE83117

Project ID:

**NEW HAVEN STORMWATER** 

Client Id	Lab Id	Matrix
CB13001	CE83117	STORM WATER
CB13015	CE83118	STORM WATER
CB13033	CE83119	STORM WATER
CB13073	CE83120	STORM WATER
CB13089	CE83121	STORM WATER
CB8609	CE83122	STORM WATER
CB9129	CE83123	STORM WATER
CB13175	CE83124	STORM WATER
CB9436	CE83125	STORM WATER
OUTFALL 126	CE83126	STORM WATER
CB13157	CE83127	STORM WATER
CB13205	CE83128	STORM WATER
CB9473	CE83129	STORM WATER



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

P.O.#:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

**Custody Information** Collected by:

**Laboratory Data** 

Received by:

CP

<u>Date</u> 12/09/19 <u>Time</u> 10:25

12/09/19

14:44

Analyzed by:

see "By" below

SDG ID: GCE83117

Phoenix ID: CE83117

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

CB13001

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	12.0	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	459	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	2610	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	109	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:32	0	SM4500CI-G-00
C.O.D.	118	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	297	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.15	0.05	mg/L	1	12/10/19 18:22	MI/EG	SM5540 C-11
Ammonia as Nitrogen	< 0.10	0.10	mg/L	2	12/12/19	KDB	E350.1
Nitrite-N	0.010	0.010	mg/L	1	12/09/19 19:06	TB	E353.2
Nitrate-N	0.05	0.02	mg/L	1	12/09/19 19:06	ТВ	E353.2
Oil and Grease by EPA 1664	2.0	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.91	0.20	mg/L	2	12/12/19	KDB	E351.1
Phosphorus, as P	0.419	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	90	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	22.9	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB13001

Phoenix I.D.: CE83117

Reference

RL/

Parameter Result PQL Units Dilution Date/Time By

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:12/09/1910:40Location Code:ATC-EHDASReceived by:CP12/09/1914:44

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

## Laboratory Data

SDG ID: GCE83117

Phoenix ID: CE83118

Project ID: NEW HAVEN STORMWATER

Client ID: CB13015

_		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	4.5	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	10	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	633	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	10	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	12000	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:35	0	SM4500CI-G-00
C.O.D.	36	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	38	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.12	0.05	mg/L	1	12/10/19 18:23	MI/EG	SM5540 C-11
Ammonia as Nitrogen	< 0.05	0.05	mg/L	1	12/12/19	KDB	E350.1
Nitrite-N	0.013	0.010	mg/L	1	12/09/19 19:13	ТВ	E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/09/19 19:13	ТВ	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.46	0.10	mg/L	1	12/12/19	KDB	E351.1
Phosphorus, as P	0.124	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	28	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	15.8	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	·

Client ID: CB13015

Phoenix I.D.: CE83118

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:12/09/1910:50Location Code:ATC-EHDASReceived by:CP12/09/1914:44

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

## **Laboratory Data**

SDG ID: GCE83117 Phoenix ID: CE83119

Project ID: NEW HAVEN STORMWATER

Client ID: CB13033

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	2.7	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	31	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	448	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	74	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	17300	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:35	0	SM4500CI-G-00
C.O.D.	19	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	64	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.12	0.05	mg/L	1	12/10/19 18:24	MI/EG	SM5540 C-11
Ammonia as Nitrogen	< 0.05	0.05	mg/L	1	12/12/19	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	12/09/19 19:15	TB	E353.2
Nitrate-N	0.07	0.02	mg/L	1	12/09/19 19:15	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	0.51	0.10	mg/L	1	12/12/19	KDB	E351.1
Phosphorus, as P	0.075	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	13	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	12.4	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB13033

Phoenix I.D.: CE83119

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:12/09/1911:05Location Code:ATC-EHDASReceived by:CP12/09/1914:44

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GCE83117 Phoenix ID: CE83120

Project ID: NEW HAVEN STORMWATER

Client ID: CB13073

Denomatan	5 "	RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	22.4	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	1040	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	3450	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	583	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:36	0	SM4500CI-G-00
C.O.D.	125	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	3460	500	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.14	0.05	mg/L	1	12/10/19 18:25	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.32	0.10	mg/L	2	12/12/19	KDB	E350.1
Nitrite-N	0.053	0.010	mg/L	1	12/09/19 19:16	TB	E353.2
Nitrate-N	0.15	0.02	mg/L	1	12/09/19 19:16	TB	E353.2
Oil and Grease by EPA 1664	3.6	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.70	0.20	mg/L	2	12/12/19	KDB	E351.1
Phosphorus, as P	0.386	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	70	10	mg/L	2	12/10/19	ARG	SM 2540D-11
Turbidity	93.7	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB13073

Phoenix I.D.: CE83120

Reference

RL/

Parameter Result PQL Units Dilution Date/Time By

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Informat	<u>tion</u>	Custody Inform	<u>ation</u>	<u>Date</u>	<u>Time</u>
Matrix:	STORM WATER	Collected by:		12/09/19	11:23
Location Code:	ATC-EHDAS	Received by:	CP	12/09/19	14:44
Rush Request:	Standard	Analyzed by:	see "By" below		

P.O.#:

## **Laboratory Data**

SDG ID: GCE83117 Phoenix ID: CE83121

Project ID: NEW HAVEN STORMWATER

Client ID: CB13089

Parameter	Result	RL/ PQL	Units	Dilution	Doto/Time	Ο	Defense
			Office	Dilation	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	16.2	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	958	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	3870	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	529	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:37	0	SM4500CI-G-00
C.O.D.	223	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	199	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.12	0.05	mg/L	1	12/10/19 18:29	MI/EG	SM5540 C-11
Ammonia as Nitrogen	< 0.25	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.013	0.010	mg/L	1	12/09/19 19:17	ТВ	E353.2
Nitrate-N	0.03	0.02	mg/L	1	12/09/19 19:17	ТВ	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	3.08	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	1.14	0.050	mg/L	5	12/18/19	JR	SM4500PE-11
Total Suspended Solids	25	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	18.7	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	51VL2 100D-11

Client ID: CB13089

Phoenix I.D.: CE83121

RL/

Parameter

Result PQL

Units

Dilution

Date/Time

By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

CP

12/09/19 12/09/19

Date

<u>Time</u> 11:40

14:44

Received by: Analyzed by:

Collected by:

see "By" below

**Laboratory Data** 

**Custody Information** 

SDG ID: GCE83117

Phoenix ID: CE83122

Project ID:

P.O.#:

**NEW HAVEN STORMWATER** 

Client ID:

CB8609

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	44.8	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	134	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	1400	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	187	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:37	0	SM4500CI-G-00
C.O.D.	220	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	471	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.13	0.05	mg/L	1	12/10/19 18:30	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.42	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.071	0.010	mg/L	1	12/09/19 19:18	TB	E353.2
Nitrate-N	0.13	0.02	mg/L	1	12/09/19 19:18	TB	E353.2
Oil and Grease by EPA 1664	8.4	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	2.20	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	0.553	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	220	10	mg/L	2	12/10/19	ARG	SM 2540D-11
Turbidity	211	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Project ID: NEW HAVEN STORMWATER Phoenix I.D.: CE83122

Client ID: CB8609

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER

Location Code: ATC-EHDAS

Rush Request: Standard

P.O.#:

 Custody Information
 Date
 Time

 Collected by:
 12/09/19
 10:11

 Received by:
 CP
 12/09/19
 14:44

Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GCE83117

Phoenix ID: CE83123

Project ID: NEW HAVEN STORMWATER

Client ID: CB9129

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	12.6	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	145	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	3450	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	199	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:38	0	SM4500CI-G-00
C.O.D.	42	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	174	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.11	0.05	mg/L	1	12/10/19 18:30	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.16	0.05	mg/L	1	12/13/19	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	12/09/19 19:19	TB	E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/09/19 19:19	ТВ	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.01	0.10	mg/L	1	12/13/19	KDB	E351.1
Phosphorus, as P	0.182	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	29	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	13.0	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB9129

Phoenix I.D.: CE83123

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

**Custody Information** Collected by:

Received by:

CP

<u>Date</u> 12/09/19 <u>Time</u> 10:00

12/09/19

14:44

Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GCE83117

Phoenix ID: CE83124

Project ID:

P.O.#:

**NEW HAVEN STORMWATER** 

Client ID:

CB13175

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	12.9	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	2050	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	9800	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	465	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:39	0	SM4500CI-G-00
C.O.D.	70	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	214	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.16	0.05	mg/L	1	12/10/19 18:31	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.31	0.10	mg/L	2	12/13/19	KDB	E350.1
Nitrite-N	0.030	0.010	mg/L	1	12/09/19 19:20	TB	E353.2
Nitrate-N	0.10	0.02	mg/L	1	12/09/19 19:20	TB	E353.2
Oil and Grease by EPA 1664	2.1	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.10	0.20	mg/L	2	12/13/19	KDB	E351.1
Phosphorus, as P	0.257	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	39	5.0	mg/L	1	12/10/19	ARG	SM 2540D-11
Turbidity	36.7	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Project ID: NEW HAVEN STORMWATER Phoenix I.D.: CE83124

Client ID: CB13175

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR:

Attn: Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

Analyzed by:

CP see "By" below

12/09/19 12/09/19 <u>Time</u> 11:56

<u>Date</u>

14:44

P.O.#:

**Laboratory Data** 

**Custody Information** 

Collected by:

Received by:

SDG ID: GCE83117

Phoenix ID: CE83125

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

CB9436

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	MGH	SW6010D
Hardness (CaCO3)	55.1	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	987	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	9800	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	520	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:41	0	SM4500CI-G-00
C.O.D.	405	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	293	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.27	0.05	mg/L	1	12/10/19 18:33	MI/EG	SM5540 C-11
Ammonia as Nitrogen	< 0.25	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.025	0.010	mg/L	1	12/09/19 19:23	TB	E353.2
Nitrate-N	0.04	0.02	mg/L	1	12/09/19 19:23	TB	E353.2
Oil and Grease by EPA 1664	8.2	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	5.83	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	1.39	0.020	mg/L	2	12/18/19	JR	SM4500PE-11
Total Suspended Solids	240	10	mg/L	2	12/10/19	ARG	SM 2540D-11
Turbidity	404	0.20	NTU	1	12/09/19 18:02	ΑP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB9436

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: CE83125



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR:

Attn: Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sampl	e l	nf	orm	ation

Matrix:

P.O.#:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

**Custody Information** Collected by:

Received by:

.aboratory Data

CP

<u>Date</u> 12/09/19 <u>Time</u> 9:46

12/09/19

14:44

Standard

Analyzed by:

see "By" below

SDG ID: GCE83117

Phoenix ID: CE83126

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

**OUTFALL 126** 

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	MGH	SW6010D
Hardness (CaCO3)	15.4	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	2600	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	1080	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:42	0	SM4500CI-G-00
C.O.D.	293	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	205	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.20	0.05	mg/L	1	12/10/19 18:33	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.51	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.024	0.010	mg/L	1	12/09/19 19:24	TB	E353.2
Nitrate-N	0.04	0.02	mg/L	1	12/09/19 19:24	ТВ	E353.2
Oil and Grease by EPA 1664	7.5	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	3.95	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	0.812	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	110	17	mg/L	3.3	12/10/19	ARG	SM 2540D-11
Turbidity	103	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: OUTFALL 126

Phoenix I.D.: CE83126

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Tumpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR:

Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Samp	le In	form	ation

Matrix:

P.O.#:

STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

**Custody Information** Collected by:

Received by:

CP

Date 12/09/19 <u>Time</u> 12:25

12/09/19

14:44

Analyzed by:

see "By" below

# .aboratory Data

SDG ID: GCE83117

Phoenix ID: CE83127

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

CB13157

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time E	By Reference
Boron	< 0.05	0.05	mg/L	1	12/12/19	TH SW6010D
Hardness (CaCO3)	11.1	0.1	mg/L	1	12/12/19	E200.7
Escherichia Coli	31	10	MPN/100 mls	10	12/09/19 17:05 L	J/LJ SM9223B-04
Enterococci Bacteria	557	10	MPN/100 mls	10	12/09/19 17:05 L	J/LJ Enterolert
Fecal Coliforms MPN	20	10	MPN/100 mls	10	12/09/19 17:05 L	J/LJ Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05 L	J/LJ SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:43	O SM4500CI-G-00
C.O.D.	690	10	mg/L	1	12/11/19 N	LM SM 5220C-11
Conductivity	84	5	umhos/cm	1	12/09/19 A	AP SM2510B-11
MBAS	0.27	0.05	mg/L	1	12/10/19 18:34 MI	/EG SM5540 C-11
Ammonia as Nitrogen	0.58	0.25	mg/L	5	12/13/19 K	DB E350.1
Nitrite-N	0.011	0.010	mg/L	1	12/09/19 19:25	ΓB E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/09/19 19:25	ΓB E353.2
Oil and Grease by EPA 1664	5.7	1.4	mg/L	1	12/13/19 M	ISF E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19 A	AP SM2520B-10
Nitrogen Tot Kjeldahl	7.28	0.50	mg/L	5	12/13/19 K	DB E351.1
Phosphorus, as P	1.10	0.020	mg/L	2	12/18/19	JR SM4500PE-11
Total Suspended Solids	160	10	mg/L	2	12/11/19 ARG	G/BJA SM 2540D-11
Turbidity	53.1	0.20	NTU	1	12/09/19 18:02 A	AP SM2130B-11
Total Metals Digestion	Completed				12/10/19 A	AG .

Client ID: CB13157

Phoenix I.D.: CE83127

RL/

Parameter Result PQL

Units Dilution

Date/Time

By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample InformationCustody InformationDateTimeMatrix:STORM WATERCollected by:12/09/1911:30Location Code:ATC-EHDASReceived by:CP12/09/1914:44Push Request:StandardApplying the standardApplying the standard

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GCE83117

Phoenix ID: CE83128
Project ID: NEW HAVEN STORMWATER

Client ID: CB13205

P.O.#:

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/12/19	TH	SW6010D
Hardness (CaCO3)	26.6	0.1	mg/L	1	12/12/19		E200.7
Escherichia Coli	51	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	1210	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	10	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	14100	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:44	0	SM4500CI-G-00
C.O.D.	152	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	314	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.25	0.05	mg/L	1	12/10/19 18:35	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.61	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.046	0.010	mg/L	1	12/09/19 19:26	TB	E353.2
Nitrate-N	0.11	0.02	mg/L	1	12/09/19 19:26	TB	E353.2
Oil and Grease by EPA 1664	6.2	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	2.27	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	0.390	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	92	10	mg/L	2	12/11/19	ARG/BJA	SM 2540D-11
Turbidity	110	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB13205

Phoenix I.D.: CE83128

RL/ PQL

Parameter

Result

Units

Dilution

Date/Time

By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 23, 2019

FOR: Attn: Luke Whitehouse

**ATC Associates** 

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER

Location Code:

ATC-EHDAS

Rush Request: Standard

P.O.#:

**Custody Information** <u>Date</u> Collected by: 12/09/19 12/09/19

Received by: CP

Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GCE83117

<u>Time</u>

12:20

14:44

Phoenix ID: CE83129

Project ID: **NEW HAVEN STORMWATER** 

Client ID: CB9473

Doromotor	D 14	RL/		<b>***</b> *********************************			
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/12/19	TH	SW6010D
Hardness (CaCO3)	60.0	0.1	mg/L	1	12/12/19		E200.7
Escherichia Coli	134	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	1350	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	52	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:44	0	SM4500CI-G-00
C.O.D.	378	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	226	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.32	0.05	mg/L	1	12/10/19 18:35	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.60	0.25	mg/L	5	12/13/19	KDB	E350.1
Nitrite-N	0.031	0.010	mg/L	1	12/09/19 19:27	TB	E353.2
Nitrate-N	0.10	0.02	mg/L	1	12/09/19 19:27	TB	E353.2
Oil and Grease by EPA 1664	13	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	4.42	0.50	mg/L	5	12/13/19	KDB	E351.1
Phosphorus, as P	4.70	0.25	mg/L	25	12/18/19	JR	SM4500PE-11
Total Suspended Solids	250	10	mg/L	2	12/11/19	ARG/BJA	SM 2540D-11
Turbidity	90.3	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Client ID: CB9473

Phoenix I.D.: CE83129

RL/

Parameter Result F

PQL

Units Dilution

Date/Time

By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 23, 2019



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

December 23, 2019

QA/QC Data

SDC	10.	GCF83117	
SUG	1.17.1	(aCE8311/	

Parameter	Blank	Bik RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509579 (mg/L), CE83124)	QC Samp	le No:	CE82451	(CE831	17, CE	83118,	CE8311	19, CE8	3120,	CE83121	, CE8	3122, C	E83123,
ICP Metals - Aqueous													
Boron	BRL	0.05	<0.05	<0.05	NC	97.0	99.9	2.9	98.4			75 - 125	20
QA/QC Batch 509580 (mg/L),	QC Samp	le No:	CE83178	(CE831	25, CE	83126,	CE8312	27, CE8	3128,	CE83129	)		
ICP Metals - Aqueous													
Boron	BRL	0.05	0.13	0.13	NC	93.5	96.0	2.6	95.4			75 - 125	20



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

December 23, 2019

QA/QC Data

SDG I.D.: GCE83117

Parameter	Blk Blank RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509446 (NTU),	QC Sample No	: CE82863	(CE831	17, CE8	3118,	CE8311	19, CE83	3120,	CE83121	, CE83	3122, C	E83123
CE83124, CE83125, CE83126 Turbidity	3, CE83127, C BRL 0.2		,	NO	105							
<i>'</i>			<0.20	NC	105						85 - 115	
QA/QC Batch 510144 (mg/L), CE83124, CE83125, CE83126	CE83127 C	D: CE82909 F83128 CF	I (CE831 F83129)	17, CE	83118,	CE831	19, CE8	3120,	CE83121	I, CE8	3122, C	E83123
Oil and Grease by EPA 1664A	BRL 1.4		_00120)		97.0	96.0	1.0				85 - 115	20
Comment:												
Additional: MS acceptance range	e 75-125%.											
QA/QC Batch 510766 (mg/L),	QC Sample No	o: CE83055	(CE831	17, CE	83118,	CE831	19, CE8	3120.	CE83121	. CE83	3122. C	E83123
CE83124, CE83125, CE83126	6, CE83127, C	E83128, CI	E83129)							•	,	
Phosphorus, as P	BRL 0.0	1 2.29	2.29	0	101			99.0			85 - 115	20
Comment:												
Additional criteria matrix spike ad												
QA/QC Batch 509534 (mg/L), CE83124, CE83125, CE83126		o: CE83055	(CE831	17, CE	83118,	CE831	19, CE8	3120,	CE83121	I, CE83	3122, C	E83123
Total Suspended Solids	BRL 2.5	78	76	2.60	110						85 - 115	20
QA/QC Batch 509450 (umhos CE83123, CE83124, CE83125	/cm), QC Samp 5, CE83126, C	ole No: CE8 E83127, CE	33093 (C E83128.	E83117	7, CE8: 29)	3118, CI	E83119,	CE83	3120, CE	33121,	CE831	22,
Conductivity	BRL 5	928	928	0	98.0						85 - 115	20
Comment:												
Additional criteria matrix spike ad	cceptance range	is 75-125%.										
QA/QC Batch 509752 (mg/L),	QC Sample No	o: CE83119	(CE831	17, CE	83118,	CE831	19, CE8	3120,	CE83121	, CE83	3122, C	E83123
CE83124, CE83125, CE83126			,									
C.O.D.	BRL 10	19	14	NC	100			99.4			85 - 115	20
Comment:												
Additional criteria matrix spike ad	, ,											
QA/QC Batch 509605 (mg/L), CE83124, CE83125, CE83126	QC Sample No	o: CE83296	(CE831	17, CE	83118,	CE831	19, CE8	3120,	CE83121	, CE83	3122, C	E83123
CE63124, CE63123, CE63126 MBAS	BRL 0.0		0.06	NC	97.9			91.3			85 - 115	20
Comment:	D112 0.0	0.10	0.00	110	37.3			31.3			00 - 110	20
Additional criteria matrix spike ad	cceptance range	is 75-125%										
QA/QC Batch 509714 (mg/L),	•			27 CE	23122	CE931	30)					
Total Suspended Solids	BRL 2.5		12	NC	92.0	CLOSTA	29)				85 - 115	20
QA/QC Batch 509468 (mg/L),						CE021	10 050	2120	OE02121	000		
CE83124, CE83125, CE83126	6, CE83127, C	E83128, CE	E83129)	17, CE	55116,	CEOST	19, CEO	3120,	CE03121	, UEO	3 122, C	E03123
Nitrate-N	BRL 0.0		0.13	0	102			103			90 - 110	20
Nitrite-N	BRL 0.0	0.050	0.05	0	97.6			102			90 - 110	20
QA/QC Batch 509816 (mg/L),	QC Sample No	o: CE82745	(CE831	17, CE	83118,	CE831	19, CE8	3120)				
Ammonia as Nitrogen	BRL 0.0		1.19	0.80	95.9		,	98.0			90 - 110	20
Nitrogen Tot Kjeldahl	BRL 0.1	2.61	2.69	3.00	98.4			88.4			85 - 115	20
Comment:												
TKN is reported as Organic Nitro	gen in the Blank	, LCS, DUP	and MS.									

# QA/QC Data

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509915 (mg/L), CE83128, CE83129)	QC Samp	ole No:	CE83121	(CE831	21, CE	83122,	CE8312	3, CE8	3124,	CE83125	5, CE8	3126, C	E83127,
Ammonia as Nitrogen	BRL	0.05	<0.25	<0.25	NC	102			100			90 - 110	20
Nitrogen Tot Kjeldahl Comment:	BRL	0.10	3.08	2.81	9.20	93.5			109			85 - 115	20
TKN is reported as Organic Nitro	gen in the	Blank, I	LCS, DUP	and MS.									
QA/QC Batch 509451 (mg/L), CE83124, CE83125, CE83126	, CE8312	27, CE	83128, CE	83129)			CE8311	9, CE8	3120,	CE8312	1, CE8	3122, C	E83123,
Chlorine Residual	BRL	0.02	<0.02	<0.02	NC	111							

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria Intf - Interference Phyllis/Shiller, Laboratory Director

SDG I.D.: GCE83117

December 23, 2019

Monday, December 23, 2019

Criteria: None

# Sample Criteria Exceedances Report

GCE83117 - ATC-EHDAS

State: CT						꿉	Analysis
SampNo Acode	Phoenix Analyte	Criteria	Result	꿉	Criteria	Criteria	a Units
*** No Data to Display ***							
to Data to Dispital							

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



# REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. Client: ATC Associates

Project Location: NEW HAVEN STORMWATER Project Number:

Laboratory Sample ID(s): CE83117-CE83129 Sampling Date(s): 12/9/2019

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes □ No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes □ No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	✓ Yes □ No
5	a) Were reporting limits specified or referenced on the chain-of-custody?      b) Were these reporting limits met?	☐ Yes 🗹 No
	b) Were these reporting mines ince.	✓ Yes □ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes 🗹 No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes 🗹 No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

knowledge and belief a	est under the pains and penalt and based upon my personal ir in this analytical report, such	iquiry of t	hose responsible for providing the
Authorized Signature:	Rashui nakol	Position:	Project Manager
Printed Name: Rash	mi Makol	Date:	Monday, December 23, 2019
Name of Laboratory	Phoenix Environmental Labs, Inc.		

This certification form is to be used for RCP methods only.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# RCP Certification Report

December 23, 2019

SDG I.D.: GCE83117 \*\*

### **SDG Comments**

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only Boron is reported as requested on the chain of custody.

### Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

#### BECKMAN DU720 #2 12/10/19-3 Michael Tran, Eric Geyer, Chemist 12/10/19

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83127, CE83129, CE8

#### BECKMAN DU720 #2 12/18/19-1 Jean Rawling, Chemist 12/18/19

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83127, CE83129

# HACH DR 5000 12/11/19-2 Nicole Molloy, Chemist 12/11/19

CE83117, CE83118, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129 The initial calibration met all criteria including a standard run at the reporting level. All method verification standards and blanks met criteria.

# QC (Batch Specific):

# Batch 509446 (CE82863)

CE83117, CE83118, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129 All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

# Batch 509450 (CE83093)

CE83117, CE83118, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129 All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509534 (CE83055)

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126 All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509605 (CE83296)

CE83117, CE83118, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129 All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509714 (CE84368)

CE83127, CE83128, CE83129



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

December 23, 2019

SDG I.D.: GCE83117

# Wet Chemistry Analysis

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

# Batch 510144 (CE82909)

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All LCSD recoveries were within 85 - 115 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

Additional: MS acceptance range 75-125%.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 510766 (CE83055)

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83127, CE83129, CE8

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

# QC (Site Specific):

# Batch 509752 (CE83119)

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

# ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### Instrument:

# BLUE 12/10/19 09:25

Mike Hornak, Chemist 12/10/19

CE83125, CE83126

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

# BLUE 12/11/19 10:29

Tina Hall, Chemist 12/11/19

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83127, CE83128, CE83129

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# Certification Report

December 23, 2019

SDG I.D.: GCE83117

# ICP Metals Narration

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None. The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None. The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

### QC (Batch Specific):

#### Batch 509579 (CE82451)

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124

All LCS recoveries were within 75 - 125 with the following exceptions: None.

All LCSD recoveries were within 75 - 125 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

#### Batch 509580 (CE83178)

CE83125, CE83126, CE83127, CE83128, CE83129

All LCS recoveries were within 75 - 125 with the following exceptions: None.

All LCSD recoveries were within 75 - 125 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

#### **LACHAT**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

#### LACHAT 12/09/19-1

Thomas Budz, Chemist 12/09/19

CE83117, CE83118, CE83119, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83127, CE83129, CE8

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

# QC (Batch Specific):

#### Batch 509468 (CE83094)

CE83117, CE83118, CE83120, CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129 All LCS recoveries were within 90 - 110 with the following exceptions: None.

#### **NITROGEN**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

### Instrument:

#### LACHAT 12/12/19-1

Kandi Della Bella, Chemist 12/12/19

CE83117, CE83118, CE83119, CE83120

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

#### LACHAT 12/13/19-1

Kandi Della Bella, Chemist 12/13/19

CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

December 23, 2019

SDG I.D.: GCE83117

# **NITROGEN**

The initial calibration met all criteria including a standard run at the reporting level. All method verification standards and blanks met criteria.

# QC (Batch Specific):

# Batch 509816 (CE82745)

CE83117, CE83118, CE83119, CE83120

All LCS recoveries were within 85 - 115 with the following exceptions: None.

TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.

# QC (Site Specific):

#### Batch 509915 (CE83121)

CE83121, CE83122, CE83123, CE83124, CE83125, CE83126, CE83127, CE83128, CE83129

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.

# **Temperature Narration**

The samples were received at 5.4C with cooling initiated. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

☐ 2 Days* ☐ I/C DEC ☐ S-3 ☐ Full Data Package*
--

Coolant: IPK ICE No Temp. 'U°C Pg 2 of 7	Contact Options:	Phone:	Project P.O:	This section MUST be completed with Bottle Quantities.	032 105 105 2 105	10 0 10 10 10 10 10 10 10 10 10 10 10 10	2			Data Format
CHAIN OF CLISTONY RECORD	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040	Email: info@phoenixlabs.com	Project: New Have A Starmwater	to: Luke white			7 2 7 2 7 7 7 7 7 7			Ri     CI     MA
	DHOR/W	zatories, Inc.	Customer: ATC Good	290 R	Sampler's Signature Sample - Information - Identification Sampler's Signature Signature Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Soild W=Wipe OIL=Oil B=Bulk L=Liquid X = (Other)	PHOENIX USE ONLY SAMOLE # Identification Marry Samoled Samoled	CB9473 SW 12/4/9			Comments, Special Requirements or Regulations:   Turnaround Time:   Turnaround Time:   Turnaround Time:   Turnaround Time:   Turnaround Time:   1 Day*   2 Days*   3 Days*   3 Days*   Comments Other   Comments



Friday, December 20, 2019

Attn: Luke Whitehouse ATC Associates 290 Roberts St., Suite 301 East Hartford, CT 06108

Project ID: NEW HAVEN STORMWATER

**SDG ID:** GCE83093

Sample ID#s: CE83093 - CE83094

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618

MA Lab Registration #M-CT007 ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003

NY Lab Registration #11301 PA Lab Registration #68-03530

RI Lab Registration #63

UT Lab Registration #CT00007

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# Sample Id Cross Reference

December 20, 2019

SDG I.D.: GCE83093

Project ID: NEW HAVEN STORMWATER

Client Id	Lab Id	Matrix
OF-129	CE83093	STORM WATER
OF-128	CE83094	STORM WATER



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Fax (860) 645-0823 Tel. (860) 645-1102

# **Analysis Report**

December 20, 2019

FOR: Attn: Luke Whitehouse

CP

**ATC Associates** 

see "By" below

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER

Location Code:

ATC-EHDAS

Rush Request:

Standard

aboratory Data

**Custody Information** 

Collected by:

Received by:

Analyzed by:

SDG ID: GCE83093

<u>Time</u>

11:50

14:45

Phoenix ID: CE83093

<u>Date</u>

12/09/19

12/09/19

Project ID:

**NEW HAVEN STORMWATER** 

Client ID:

P.O.#:

OF-129

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	0.10	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	118	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	327	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	857	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	189	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:30	0	SM4500CI-G-00
C.O.D.	161	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	928	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.41	0.10	mg/L	2	12/10/19 18:21	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.44	0.10	mg/L	2	12/12/19	KDB	E350.1
Nitrite-N	0.066	0.010	mg/L	1	12/09/19 19:12	TB	E353.2
Nitrate-N	0.13	0.02	mg/L	1	12/09/19 19:12	TB	E353.2
Oil and Grease by EPA 1664	10	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.94	0.20	mg/L	2	12/12/19	KDB	E351.1
Phosphorus, as P	0.265	0.010	mg/L	1	12/18/19	MI	SM4500PE-11
Total Suspended Solids	100	17	mg/L	3.3	12/10/19	ARG	SM 2540D-11
Turbidity	183	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Project ID: NEW HAVEN STORMWATER Phoenix I.D.: CE83093

Client ID: OF-129

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 20, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# **Analysis Report**

December 20, 2019

FOR: Attn: Luke Whitehouse

ATC Associates

290 Roberts St., Suite 301 East Hartford, CT 06108

Sample Information **Custody Information** <u>Date</u> <u>Time</u> Matrix: STORM WATER Collected by: 12/09/19 10:40 Received by: ATC-EHDAS Location Code: CP 12/09/19 14:45 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GCE83093

Phoenix ID: CE83094

Project ID: NEW HAVEN STORMWATER

Client ID: OF-128

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Boron	< 0.05	0.05	mg/L	1	12/11/19	TH	SW6010D
Hardness (CaCO3)	12.9	0.1	mg/L	1	12/11/19		E200.7
Escherichia Coli	384	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SM9223B-04
Enterococci Bacteria	836	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Enterolert
Fecal Coliforms MPN	350	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	12/09/19 17:05	LJ/LJ	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	12/09/19 18:31	0	SM4500CI-G-00
C.O.D.	72	10	mg/L	1	12/11/19	NLM	SM 5220C-11
Conductivity	336	5	umhos/cm	1	12/09/19	AP	SM2510B-11
MBAS	0.19	0.05	mg/L	1	12/10/19 18:22	MI/EG	SM5540 C-11
Ammonia as Nitrogen	0.34	0.05	mg/L	1	12/12/19	KDB	E350.1
Nitrite-N	0.050	0.010	mg/L	1	12/09/19 19:03	TB	E353.2
Nitrate-N	0.13	0.02	mg/L	1	12/09/19 19:03	TB	E353.2
Oil and Grease by EPA 1664	4.8	1.4	mg/L	1	12/13/19	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	12/09/19	AP	SM2520B-10
Nitrogen Tot Kjeldahl	1.12	0.10	mg/L	1	12/12/19	KDB	E351.1
Phosphorus, as P	0.174	0.010	mg/L	1	12/18/19	JR	SM4500PE-11
Total Suspended Solids	62	10	mg/L	2	12/10/19	ARG	SM 2540D-11
Turbidity	68.7	0.20	NTU	1	12/09/19 18:02	AP	SM2130B-11
Total Metals Digestion	Completed				12/10/19	AG	

Project ID: NEW HAVEN STORMWATER Phoenix I.D.: CE83094

Client ID: OF-128

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# **Comments:**

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 20, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

December 20, 2019

QA/QC Data

SDG I.D.: GCE83093

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509579 (mg/L),	QC Samp	ole No:	CE82451	(CE830	93, CE	83094)							
ICP Metals - Aqueous													
Boron	BRL	0.05	<0.05	<0.05	NC	97.0	99.9	2.9	98.4			75 - 125	20



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

December 20, 2019

QA/QC Data

SDG I.D.: GCE83093

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509446 (NTU), (	C Samp	le No: (	CE82863	(CE830	93. CE8	33094)							
Turbidity	BRL	0.20	<0.20	<0.20	NC	105						85 - 115	20
QA/QC Batch 510144 (mg/L), (	QC Samp	ole No:	CE82909	(CE830	93, CE	83094)							
Oil and Grease by EPA 1664A Comment:	BRL	1.4				97.0	96.0	1.0				85 - 115	20
Additional: MS acceptance range	75-125%	b.											
QA/QC Batch 510766 (mg/L), (	QC Samp	ole No:	CE83055	(CE830	94)								
Phosphorus, as P Comment:	BRL	0.01	2.29	2.29	0	101			99.0			85 - 115	20
Additional criteria matrix spike ac	ceptance	range is	75-125%.										
QA/QC Batch 509534 (mg/L),	QC Samp	ole No:	CE83055	(CE830	93, CE	83094)							
Total Suspended Solids	BRL	2.5	78	76	2.60	110						85 - 115	20
QA/QC Batch 509450 (umhos/	cm), QC	Sample	e No: CE8	33093 (C	E83093	3, CE83	3094)						
Conductivity Comment:	BRL	5	928	928	0	98.0						85 - 115	20
Additional criteria matrix spike ac	ceptance	range is	75-125%.										
QA/QC Batch 509752 (mg/L),	QC Samp	ole No:	CE83119	(CE830	93, CE	83094)							
C.O.D. Comment:	BRL	10	19	14	NC	100			99.4			85 - 115	20
Additional criteria matrix spike ac	ceptance	range is	75-125%.										
QA/QC Batch 509605 (mg/L),	QC Samp	ole No:	CE83296	(CE830	93, CE	83094)							
MBAS	BRL	0.05	0.10	0.06	NC	97.9			91.3			85 - 115	20
Comment:													
Additional criteria matrix spike ad	ceptance	range is	375 <b>-</b> 125%.										
QA/QC Batch 510843 (mg/L),	QC Sam	ole No:	CE83654	(CE830	93)								
Phosphorus, as P Comment:	BRL	0.01	3.47	3.47	0	99.4			101			85 - 115	20
Additional criteria matrix spike ad	cceptance	range is	75-125%.										
QA/QC Batch 509468 (mg/L),	QC Sam	ple No:	CE83094	(CE830	93, CE	83094)							
Nitrate-N	BRL	0.02	0.13	0.13	0	102			103			90 - 110	20
Nitrite-N	BRL	0.01	0.050	0.05	0	97.6			102			90 - 110	20
QA/QC Batch 509816 (mg/L),	QC Samı	ple No:	CE82745	(CE830	)93, CE	83094)							
Ammonia as Nitrogen	BRL	0.05	1.20	1.19	0.80	95.9			98.0			90 - 110	20
Nitrogen Tot Kjeldahl Comment:	BRL	0.10	2.61	2.69	3.00	98.4			88.4			85 - 115	20
TKN is reported as Organic Nitro	gen in the	Blank,	LCS, DUP	and MS.									
QA/QC Batch 509451 (mg/L),	QC Sam	ple No:	CE83050	(CE830	93, CE	83094)							
Chlorine Residual	BRL	0.02	<0.02	<0.02	NC	111							

# QA/QC Data

SDG I.D.: GCE83093

Blk Sample Dup Result Dup RPD LCS LCSD LCS MS MSD RPD MS Rec Blank RL RPD Result RPD Parameter % % % % Limits Limits

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

December 20, 2019

Friday, December 20, 2019

Criteria: None State: CT

# Sample Criteria Exceedances Report

GCE83093 - ATC-EHDAS

\_

씸 Result Criteria Phoenix Analyte

Analysis Units

RL Criteria

Criteria

SampNo Acode
\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



# REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. Client: ATC Associates

Project Location: NEW HAVEN STORMWATER Project Number:

Laboratory Sample ID(s): CE83093, CE83094 Sampling Date(s): 12/9/2019

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes □ No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes □ No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	□ Yes □ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	✓ Yes □ No
5	a) Were reporting limits specified or referenced on the chain-of-custody?	☐ Yes ☑ No
	b) Were these reporting limits met?	✓ Yes □ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes 🗹 No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes <b>☑</b> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalt knowledge and belief and based upon my personal in information contained in this analytical report, such	nquiry of those responsible for providing the
Authorized Signature: Roshmi Wakol	Position: Project Manager
Printed Name: Rashmi Makol	Date: Friday, December 20, 2019
Name of Laboratory Phoenix Environmental Labs, Inc.	

This certification form is to be used for RCP methods only.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# RCP Certification Report

December 20, 2019

SDG I.D.: GCE83093

# **SDG Comments**

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only Boron is reported as requested on the chain of custody.

# Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

BECKMAN DU720 #2 12/10/19-3 Michael Tran, Eric Geyer, Chemist 12/10/19

CE83093, CE83094

BECKMAN DU720 #2 12/18/19-1 Jean Rawling, Chemist 12/18/19

CE83094

BECKMAN DU720 #2 12/18/19-3 Michael Tran, Chemist 12/18/19

CE83093

HACH DR 5000 12/11/19-2

Nicole Molloy, Chemist 12/11/19

CE83093, CE83094

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

# QC (Batch Specific):

# Batch 509446 (CE82863)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

# Batch 509450 (CE83093)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509534 (CE83055)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509605 (CE83296)

CE83093, CE83094



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# RCP Certification Report

December 20, 2019

SDG I.D.: GCE83093

# Wet Chemistry Analysis

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 509752 (CE83119)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 510144 (CE82909)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. All LCSD recoveries were within 85 - 115 with the following exceptions: None. All LCS/LCSD RPDs were less than 20% with the following exceptions: None. Additional: MS acceptance range 75-125%.

Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 510766 (CE83055)

CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

#### Batch 510843 (CE83654)

CE83093

All LCS recoveries were within 85 - 115 with the following exceptions: None. Additional criteria matrix spike acceptance range is 75-125%.

# ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### Instrument:

#### BLUE 12/11/19 10:29

Tina Hall, Chemist 12/11/19

CE83093, CE83094

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

#### QC (Batch Specific):

# Batch 509579 (CE82451)

CE83093, CE83094

All LCS recoveries were within 75 - 125 with the following exceptions: None. All LCSD recoveries were within 75 - 125 with the following exceptions: None.







# **Certification Report**

December 20, 2019

SDG I.D.: GCE83093

#### ICP Metals Narration

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

# LACHAT

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

LACHAT 12/09/19-1

Thomas Budz, Chemist 12/09/19

CE83093, CE83094

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

# QC (Site Specific):

#### Batch 509468 (CE83094)

CE83093, CE83094

All LCS recoveries were within 90 - 110 with the following exceptions: None.

All MS recoveries were within 90 - 110 with the following exceptions: None.

# **NITROGEN**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes,

# Instrument:

LACHAT 12/12/19-1

Kandi Della Bella, Chemist 12/12/19

CE83093, CE83094

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

# QC (Batch Specific):

#### Batch 509816 (CE82745)

CE83093, CE83094

All LCS recoveries were within 85 - 115 with the following exceptions: None.

TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.

# **Temperature Narration**

The samples were received at 5.4C with cooling initiated.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes No	TempS. U/C Pg of	Data Delivery/Contact Options:	luke whitehouse@atcas.com	Project P.O:	This section MUST be	completed with	Bottle Quantities.			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TO BE STATE OF THE PARTY OF THE	1	. 1 (   2					MA Data Format		EQUIS	Data Package	☐ Tier II Checklist ☐ Full Data Package*	MWRA eSMART Phoenix Std Report Other	SURCHARGE APPLIES
		Fax	Phone:			He was a second and the second and t			1 2 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	TO LOVE TO SERVICE STATE OF THE PARTY OF THE	\$ 105 10 105 105 105 105 105 105 105 105		7						RCP Cert MCP C			Residential DEC C S-2  1/C DEC S-3		State where samples were collected:
	ODY RECORD	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040	Fax (860) 645-0823 <b>(60) 645-8726</b>	New Haven Stormwater	Luke Whitehouse	2	CTDAS Rates					× ×	××××					<u></u>	Direct Exposure (Residential)	Other				State where sam
	CHAIN OF CUSTODY RECORD	Aiddle Tumpike, P.O. Box	Email: info@phoenixlabs.com Fax (860) 64 Client Services (860) 645-8726	Project: Ne			_ QUOTE# CT	Analysis	Isanbay	1000 m		×	XXXXX						81-21 PILPI		Turnaround:	2 Days*	3 Days*	Other 5 000
	S	587 East N	Emai					ication	ater WW=Waste Water Solid W=Wipe OIL=Oil		Date Sampled S	150	0.00	•					Rugan					
			Environmental Laboratories, Inc.	ATC Group Services	290 Roberts St, Suite 301	East Hartford, CT		ample - Information - Identificati	MATIX Code:  DW=DIRING Water SW=Surface Water SW=Surface Water V RW=RAW Water SE=Sediment SL=Sludge S=Soil SD=Soild		Customer Sample Sample Identification Matrix	M) Z	10%					Accepted by:	(Capa)	ments or Regulations:	•			
			Environmental	Customer: ATC G	' '	East H		Sampler's Sonature	Matrix Code: DW=Drinking Water GW=C RW=Ra-Raw Water SE=Sedim R=Rulk I = I fauid	ם-פווע ב-בולמות	NLY	- <del>1</del> 0 85068	83094 OF					Remaished by		Comments, Special Requirements or Regulations:				

# **Positive Coliform Report CLIENT NOTIFICATION**

Sample Delivery Group: GCE83117

PHOENIX 🗲

Location Code: ATC-EHDAS

Project: NEW HAVEN STORMWATER

	•														
			L		T-COLI			E-COLI			F-COLI			ENTERO	
Phoenix ID Client Id	Client Id	Matrix	Rush	Result	Units	Date	Result	Units	Date	Result	Units	Date	Result	Units	Date
CE83117	CE83117 CB13001	SW		>24200	mpn/100mls	12/09/19	459	mpn/100mls	12/09/19	109	mpn/100mls	12/09/19	2610	mpn/100mls	12/09/19
CE83118	CB13015	SW		12000	mpn/100mls	12/09/19	10	mpn/100mls	12/09/19	10	mpn/100mls	12/09/19	633	mpn/100mls	12/09/19
CE83119	CB13033	SW		17300	mpn/100mls 12/09/19	12/09/19	31	mpn/100mls 12/09/19	12/09/19	74	mpn/100mls 12/09/19	12/09/19	448	mpn/100mls	12/09/19
CE83120	CB13073	SW		>24200	mpn/100mls	12/09/19	1040	mpn/100mls	12/09/19	583	mpn/100mls	12/09/19	3450	mpn/100mls	12/09/19
CE83121	CB13089	SW		>24200	mpn/100mls	12/09/19	958	mpn/100mls	12/09/19	529	mpn/100mls	12/09/19	3870	mpn/100mls	12/09/19
CE83122	CB8609	SW		24200	mpn/100mls	12/09/19	134	mpn/100mls	12/09/19	187	mpn/100mls	12/09/19	1400	mpn/100mls	12/09/19
CE83123	CB9129	SW		>24200	mpn/100mls	12/09/19	145	mpn/100mls	12/09/19	199	mpn/100mls	12/09/19	3450	mpn/100mls	12/09/19
CE83124	CE83124 CB13175	SW		>24200	mpn/100mls	12/09/19	2050	mpn/100mls	12/09/19	465	mpn/100mls	12/09/19	9800	mpn/100mls	12/09/19
CE83125	CB9436	SW		>24200	mpn/100mls	12/09/19	286	mpn/100mls	12/09/19	520	mpn/100mls	12/09/19	9800	mpn/100mls	12/09/19
CE83126	CE83126 OUTFALL 126	SW		>24200	mpn/100mls 12/09/19	12/09/19	2600	mpn/100mls	12/09/19	1080	mpn/100mls 12/09/19	12/09/19	>24200	mpn/100mls	12/09/19
CE83127	CB13157	SW		>24200	mpn/100mls	12/09/19	31	mpn/100mls	12/09/19	20	mpn/100mls	12/09/19	557	mpn/100mls	12/09/19
CE83128	CB13205	SW		14100	mpn/100mls	12/09/19	51	mpn/100mls	12/09/19	10	mpn/100mls	12/09/19	1210	mpn/100mls	12/09/19
CE83129	CB9473	SW		>24200	mpn/100mls 12/09/19	12/09/19	134	mpn/100mls	12/09/19	52	mpn/100mls	12/09/19	1350	mpn/100mls	12/09/19

Contact: luke.whitehouse@atcgs.com

**Date:** 12/11/2019 9:57:45 AM

Comments: emailed



# Report of Analysis

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date: Receipt Date: 12/9/2019 12/9/2019

Report Date:

12/10/2019

Sample Site:

CB 13001

Sample ID#: 129307

Sample Type:

Water

Sample Source:

New Haven Stormwater

Sampler:

Client

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	630	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Coliform, Total	41060	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	4540	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	100	MPN/100mL	Colilert-18	100	12/10/2019	JВ

DAVID BAKRIS - KABORATORY DIRECTOR



129308

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date: 12/9/2019 12/10/2019

Sample Site:

CB 13015

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	<100	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	11780	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	630	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	<100	MPN/100mL	Colilert-18	100	12/10/2019	ъ

DAVID BARRIS - LABORATORY DIRECTOR



129309

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date:

12/9/2019 12/10/2019

Sample Site: CB 13033						
Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	<100	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Coliform, Total	11460	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	1340	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	<1.00	MPN/100mL	Colilert-18	100	12/10/2019	JB

DAVID BARRIS - LABORATORY DIRECTOR



129310

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

Receipt Date:

12/9/2019 12/10/2019

12/9/2019

Report Date: Sample Site: CB 13073

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	740	MPN/100mL	Colilert-18	100	12/9/2019	ЈВ
Coliform, Total	111990	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	5460	MPN/100mL	Enterolert	100	12/9/2019	ΊΒ
Fecal Coliform Bacteria	310	MPN/100mL	Colilert-18	100	12/10/2019	ЈВ

DAY BARRIS - LABORATORY DIRECTOR



# Report of Analysis

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date:

12/9/2019 12/10/2019

Sample Site:

CB 13089

Sample ID#:

129311 Water

Sample Type: Sample Source:

New Haven Stormwater

Sampler:

Client

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	850	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	104620	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	10030	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	300	MPN/100mL	Colilert-18	100	12/10/2019	JB

DAVID BARRIS - LABORATORY DIRECTOR



129312

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date: 12/9/2019 12/10/2019

Sample Site:

CB 8609

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	200	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Coliform, Total	14140	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	950	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	310	MPN/100mL	Colilert-18	100	12/10/2019	JВ

DAVID BARRIS - LABORATORY DIRECTOR



129313

New Haven Stormwater

100

100

100

12/9/2019

12/9/2019

12/10/2019

JB

JB

JВ

Water

Client

# Report of Analysis

MPN/100mL

MPN/100mL

MPN/100mL

51720

6310

520

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date: Receipt Date: 12/9/2019

Report Date:

12/9/2019 12/10/2019

Sample Site:

**Biological** 

Coliform, E. Coli Coliform, Total

Enterococcus Bacteria

Fecal Coliform Bacteria

CB 9129

**Parameter** 

.9						
	Sample Result	Units	Method	MDL	Analysis Date	Analyst
	100	MPN/100mL	Colilert-18	100	12/9/2019	JB

Colilert-18

Enterolert

Colilert-18

DAVID BARRIS - LABORATORY DIRECTOR



129314

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date: 12/9/2019 12/10/2019

Sample Site:

CB 13175

Sample Site: CB 13175						
Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	1890	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	98040	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	15760	MPN/100mL	Enterolert	100	12/9/2019	JВ
Fecal Coliform Bacteria	410	MPN/100mL	Colilert-18	100	12/10/2019	JВ

DAVID BARRIS - LABORATORY DIRECTOR



129315

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date:

12/9/2019 12/10/2019

Samnla Site

12/10/2015 CB 0/36

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	1600	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	>241960	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	9340	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	1090	MPN/100mL	Colilert-18	100	12/10/2019	JВ

DAVID BARRIS - LABORATORY DIRECTOR



# Report of Analysis

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date: 12/9/2019 12/10/2019

Sample Site:

Outfall 126

Sample ID#:

129316

Sample Type:

Water New Haven Stormwater

Sample Source: Sampler:

Client

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	2750	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Coliform, Total	>241960	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	111990	MPN/100mL	Enterolert	100	12/9/2019	ЛВ
Fecal Coliform Bacteria	2130	MPN/100mL	Colilert-18	100	12/10/2019	JB

AND BARRIS - LABORATORY DIRECTOR



129317

Water

Client

New Haven Stormwater

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date:

12/9/2019

Sample Site:

12/10/2019

CB 13157

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	<100	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	72700	MPN/100mL	Colilert-18	100	12/9/2019	ЈВ
Enterococcus Bacteria	740	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	<100	MPN/100mL	Colilert-18	100	12/10/2019	JB

D BARRIS - LABORATORY DIRECTOR



129318

New Haven Stormwater

Water

Client

1005 BOSTON POST ROAD
MADISON, CT 06443
Phone 203-245-0568
FAX 203-318-0830
Connecticut Certification PH-0535
www.eclinconline.com

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date:

12/9/2019

Report Date:

12/10/2019

Sample Site: CB 13205

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	100	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Coliform, Total	11120	MPN/100mL	Colilert-18	100	12/9/2019	JВ
Enterococcus Bacteria	1580	MPN/100mL	Enterolert	100	12/9/2019	лв
Fecal Coliform Bacteria	<100	MPN/100mL	Colilert-18	100	12/10/2019	JB

BARRIS - LABORATORY DIRECTOR



129319

New Haven Stormwater

100

12/10/2019

JB

Water

Client

# **Report of Analysis**

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Colilert-18

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

300

Sample Date:

12/9/2019 12/9/2019

Receipt Date: Report Date:

12/10/2019

Sample

Fecal Coliform Bacteria

Sample Site: OF 129						
Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological			The state of the s		Dutt	
Coliform, E. Coli	100	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	18600	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	1090	MPN/100mL	Enterolert	100	12/9/2019	JB
	1050	WII IV/ IOUIIL	Enterolett	100	12/9/2019	J

MPN/100mL

BARRIS/LABORATORY DIRECTOR



129320

New Haven Stormwater

Water

Client

# Report of Analysis

Sample ID#:

Sampler:

Sample Type:

Sample Source:

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date: 12/9/2019 12/10/2019

Sample Site:

OF 128

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological			A *		Dute	
Coliform, E. Coli	410	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	21870	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	1450	MPN/100mL	Enterolert	100	12/9/2019	JB
Fecal Coliform Bacteria	520	MPN/100mL	Colilert-18	100	12/10/2019	JB

DAYID BARIS - LABORATORY DIRECTOR



# Report of Analysis

Name:

ATC Group Services, LLC

290 Roberts St.

East Hartford, CT 06108

Attn: Luke Whitehouse

Sample Date:

12/9/2019

Receipt Date: Report Date:

12/9/2019 12/10/2019

Sample Site:

9473

Sample ID#: 129321 Sample Type:

Sample Source:

Water

Sampler:

New Haven Stormwater

Client

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological					Date	<u> </u>
Coliform, E. Coli	310	MPN/100mL	Colilert-18	100	12/9/2019	JB
Coliform, Total	24000	MPN/100mL	Colilert-18	100	12/9/2019	JB
Enterococcus Bacteria	2720	MPN/100mL	Enterolert	100	12/9/2019	
Fecal Coliform Bacteria	100	MPN/100mL	Colilert-18	100	12/9/2019	JB JB

LABORATORY DIRECTOR

ENVIRONMENTAL CONSULTING LABORATORIES, INC.

Luke. Win tehudse @afcg\$ 1665 Boston Post Road Madison, CT 06413

(203) 24. 68 Phone (203) 318-0830 Fax

Client	ATC Group	(			A.	Project:				Analysis	si.			_
											· · ·		\ \ \	
Contact	290 Opports	State T	10 × 10 × 1	2	 	New	- 1	とと	Haven throughten	4			\ \ '	
Phone:		1	200			•	* v. ···			· .		/	\ \\ >>	\
ŽĮ K	TNC NTNC COMM NPDES SPDES	Sam	Samplers Name: (Print)	lers Name: (Print)	7	1.0	000			<del>J</del>	13/			
Client	Sampling		Date	Time		Sample	ample Type		Number of	-	<u> </u>	J-		
3	Location				Water	Solid	Comp	Grab	Containers	$\sum$			RCI Compile ID:	E
												}	dilloc Tod	<u>[</u>
	CB 13001	121	61/6	1025	×	THE CONTRACT OF THE CONTRACT O		>	_	>	3		VEDCE	
	CB 13015		<b>2</b>	0401	×			<b> </b>	_	X	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		00571	
	CB 13033			050	×			×	-	×	<b> </b>	-	120200	1-
	CB 12023			50)]	X			×	-	×	 		120310	
	S			5211	X			>		\ <u>&gt;</u>			12021	
	C15 8609			0411	X			\ \	 		/×		12021	
	3216			101	X			 		×	   ~		120312	
	d			000	×,×			(×		>	   X		12021	
	C.15, 9436			12.6	X			×		Х	×		120215	
	02)   St.    020			X50	X			ا لا	مست	×			17031	
	08 515 7			22	×			X,	_	<b>/</b> ×	×		120317	
	UB 15 105			120	X			×		义	×		81864	
	\$7Z	7		20	×			×	_	×	<b>×</b>		100310	
Relinquished by:	hed by:	Date	Time	Received by:	.ko/f			19/10	Were Sample	s received	Were Samples received within holding time (Y)N	11	7 (	
		17/9/19	0.00		Sal	Se		1 3 1 d	Were Samples	s chilled up in appropri	Were Samples chilled upon receipt? (YN Are Samples in appropriate containers (Y) N		15.3 C	
Polinguiched bu			ļ	>		}	0		If No Explain	III	Ayre Hell			
smhumaxy		Date	Time	Received by:	1 by:				Vic Container  Did Samples  Were Samples	s proken o need to be presented	Old Samples presented property YN  Were Samples presented property YN	(N) X		
Remarks o	Remarks or Comments:								Ĭ.	1				Discovery of the last of the l

Remarks or Comments:

ENVIRONMENTAL CONSULTING LABORATORIES, INC.

1005 Boston Post Road Madison, CT 06443

(203) 245-0568 Phone (203) 318-0830 Fax

ECL Sample IDs Were Samples received within holding time? Y/N Did Samples need to be split upon receipt? Y/N Are Samples in appropriate containers? Y/N Were Samples chilled upon receipt? Y/N Were Samples presented properly? Y/N Are containers broken or leaking? Y/N Analysis If No, type needed If No Explain\_ Number of Containers VEN they change Grab 13/0/19 DE 2:10 Molly Numbel Lute Whitchour Comp Sample Type Solid Project: Water Received by: Received by: Time Samplers Name: (Print) 12/4/19 3:00 Time Time Address No bology A. Wite 38/ Est of 2919 Client ATE (243Up) Contact WKE. WHITE hould ant al. 1811 Date 19 Date Date Sampling Location TNC NTINC COMM NPDES SPDES Relinquished by: UM OF Relinquished by: Phone: Client I.D.

Remarks or Comments: