# FORMER GASTOWN MGP SITE SITE NO. 915171

# 2012 LAB REPORTS FOR THE GROUNDWATER COLLECTION & TREATMENT SYSTEM





THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-16253-1

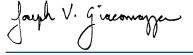
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Qtrly Post-Carbon Qtrly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 3/1/2012 2:30:54 PM

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----- LINKS -----

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

District New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Joseph V. giveonage

Joe Giacomazza Project Administrator 3/1/2012 2:30:54 PM e

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TestAmerica Job ID: 480-16253-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	
Client Sample Results	
Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	17

5

6

8

9

# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Compound was found in the blank and sample.

TestAmerica Job ID: 480-16253-1

#### **Qualifiers**

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
Х	Surrogate is outside control limits

#### **GC VOA**

J

В

Qualifier	Qualifier Description								
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.								
Metals									
Qualifier	Qualifier Description								

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

These commonly used abbreviations may or may not be present in this report.

#### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.

# Glossary Abbreviation

<del>\times</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-16253-1

Job ID: 480-16253-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-16253-1

#### Receipt

All samples were received in good condition within temperature requirements.

#### GC/MS VOA

Method 8260B: The following sample was diluted due to the abundance of target analytes: Pre-Carbon (480-16255-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method 8270C: The following sample contained one base surrogate outside acceptance limits: Post-Carbon (480-16253-1). The laboratory's SOP allows one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. This result has been reported and qualified.

No other analytical or quality issues were noted.

#### Ion Chromatography

Method 300.0: In batch 52511, the following samples were diluted due to the abundance of target analytes: Pre-Carbon (480-16255-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **GC VOA**

Method 8021B: The following sample was diluted due to abundance of target analytes: Pre-Carbon (480-16255-1). Therefore, elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

No analytical or quality issues were noted.

#### Metals

No other analytical or quality issues were noted.

#### **General Chemistry**

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-16253-1)

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 02/16/12 14:00 Date Received: 02/16/12 15:10 Lab Sample ID: 480-16253-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/21/12 18:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/21/12 18:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/21/12 18:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/21/12 18:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/21/12 18:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/21/12 18:06	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			02/21/12 18:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/21/12 18:06	1
2-Hexanone	ND		5.0	1.2	ug/L			02/21/12 18:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/21/12 18:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/21/12 18:06	1
Acetone	ND		10	3.0	ug/L			02/21/12 18:06	1
Benzene	ND		1.0	0.41	ug/L			02/21/12 18:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/21/12 18:06	1
Bromoform	ND		1.0	0.26	ug/L			02/21/12 18:06	1
Bromomethane	ND		1.0	0.69	ug/L			02/21/12 18:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/21/12 18:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/21/12 18:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/21/12 18:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/21/12 18:06	1
Chloroethane	ND		1.0	0.32	ug/L			02/21/12 18:06	1
Chloroform	3.7		1.0	0.34	ug/L			02/21/12 18:06	1
Chloromethane	ND		1.0	0.35	ug/L			02/21/12 18:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/21/12 18:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/21/12 18:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/21/12 18:06	1
Styrene	ND		1.0	0.73	ug/L			02/21/12 18:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/21/12 18:06	1
Toluene	ND		1.0	0.51	ug/L			02/21/12 18:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/21/12 18:06	1
Trichloroethene	ND		1.0	0.46	ug/L			02/21/12 18:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/21/12 18:06	1
Vinyl acetate	ND		5.0	0.85	ug/L			02/21/12 18:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/21/12 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		66 - 137		/21/12 18:06	1
Toluene-d8 (Surr)	105		71 - 126	02	/21/12 18:06	1
4-Bromofluorobenzene (Surr)	102		73 - 120	02	/21/12 18:06	1

Made adv 00700	0	O	J- (CC/MC)
wethod: 82/UC •	· Semivolatile	Organic Compound	15 (GC/M5)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND	4.7	0.57	ug/L		02/17/12 15:08	02/22/12 14:56	1
Acenaphthene	ND	4.7	0.39	ug/L		02/17/12 15:08	02/22/12 14:56	1
Acenaphthylene	ND	4.7	0.36	ug/L		02/17/12 15:08	02/22/12 14:56	1
Anthracene	ND	4.7	0.26	ug/L		02/17/12 15:08	02/22/12 14:56	1
Benzo[a]anthracene	ND	4.7	0.34	ug/L		02/17/12 15:08	02/22/12 14:56	1
Benzo[a]pyrene	ND	4.7	0.44	ug/L		02/17/12 15:08	02/22/12 14:56	1
Benzo[b]fluoranthene	ND	4.7	0.32	ug/L		02/17/12 15:08	02/22/12 14:56	1
Benzo[g,h,i]perylene	ND	4.7	0.33	ug/L		02/17/12 15:08	02/22/12 14:56	1
Benzo[k]fluoranthene	ND *	4.7	0.69	ug/L		02/17/12 15:08	02/22/12 14:56	1

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TestAmerica Job ID: 480-16253-1

**Client Sample ID: Post-Carbon** 

Date Collected: 02/16/12 14:00 Date Received: 02/16/12 15:10 Lab Sample ID: 480-16253-1

**Matrix: Wastewater** 

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND ND		4.7	0.62	ug/L		02/17/12 15:08	02/22/12 14:56	1
Bis(2-ethylhexyl) phthalate	ND		4.7	1.7	ug/L		02/17/12 15:08	02/22/12 14:56	1
Carbazole	ND		4.7	0.28	ug/L		02/17/12 15:08	02/22/12 14:56	1
Chrysene	ND		4.7	0.31	ug/L		02/17/12 15:08	02/22/12 14:56	1
Dibenz(a,h)anthracene	ND		4.7	0.40	ug/L		02/17/12 15:08	02/22/12 14:56	1
Dibenzofuran	ND *	•	9.4	0.48	ug/L		02/17/12 15:08	02/22/12 14:56	1
Fluoranthene	ND		4.7	0.38	ug/L		02/17/12 15:08	02/22/12 14:56	1
Fluorene	ND		4.7	0.34	ug/L		02/17/12 15:08	02/22/12 14:56	1
Indeno[1,2,3-cd]pyrene	ND		4.7	0.44	ug/L		02/17/12 15:08	02/22/12 14:56	1
Naphthalene	ND		4.7	0.72	ug/L		02/17/12 15:08	02/22/12 14:56	1
Pentachlorophenol	ND		9.4	2.1	ug/L		02/17/12 15:08	02/22/12 14:56	1
Phenanthrene	ND		4.7	0.42	ug/L		02/17/12 15:08	02/22/12 14:56	1
Phenol	ND		4.7	0.37	ug/L		02/17/12 15:08	02/22/12 14:56	1
Pyrene	ND		4.7	0.32	ug/L		02/17/12 15:08	02/22/12 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	l Analyzed	Dil Fac
2,4,6-Tribromophenol	97		52 - 132	02/17/12 15	:08 02/22/12 14:56	1
2-Fluorobiphenyl	90		48 - 120	02/17/12 15	:08 02/22/12 14:56	1
2-Fluorophenol	36		20 - 120	02/17/12 15	:08 02/22/12 14:56	1
Nitrobenzene-d5	73		46 - 120	02/17/12 15	:08 02/22/12 14:56	1
p-Terphenyl-d14	63	X	67 - 150	02/17/12 15	:08 02/22/12 14:56	1
Phenol-d5	23		16 - 120	02/17/12 15	:08 02/22/12 14:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/21/12 15:06	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/21/12 15:06	1
Benzene	0.49		0.20	0.023	ug/L			02/21/12 15:06	1
Ethylbenzene	ND		0.20	0.029	ug/L			02/21/12 15:06	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/21/12 15:06	1
Methyl tert-butyl ether	0.20	J	0.40	0.044	ug/L			02/21/12 15:06	1
m,p-Xylene	ND		0.40	0.054	ug/L			02/21/12 15:06	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/21/12 15:06	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/21/12 15:06	1
o-Xylene	ND		0.20	0.027	ug/L			02/21/12 15:06	1
p-Cymene	ND		0.20	0.030	ug/L			02/21/12 15:06	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/21/12 15:06	1
Toluene	0.098	J	0.20	0.036	ug/L			02/21/12 15:06	1
Xylenes, Total	ND		0.60	0.054	ug/L			02/21/12 15:06	1

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.047	0.0062	ug/L		02/18/12 08:07	02/21/12 19:18	1
alpha-BHC	ND		0.047	0.0062	ug/L		02/18/12 08:07	02/21/12 19:18	1
beta-BHC	ND		0.047	0.023	ug/L		02/18/12 08:07	02/21/12 19:18	1
delta-BHC	ND		0.047	0.0094	ug/L		02/18/12 08:07	02/21/12 19:18	1
gamma-BHC (Lindane)	ND		0.047	0.0057	ug/L		02/18/12 08:07	02/21/12 19:18	1
Chlordane (technical)	ND		0.47	0.027	ug/L		02/18/12 08:07	02/21/12 19:18	1
4,4'-DDD	ND		0.047	0.0087	ug/L		02/18/12 08:07	02/21/12 19:18	1
4,4'-DDE	ND		0.047	0.011	ug/L		02/18/12 08:07	02/21/12 19:18	1
4,4'-DDT	ND		0.047	0.010	ug/L		02/18/12 08:07	02/21/12 19:18	1
Dieldrin	ND		0.047	0.0092	ua/L		02/18/12 08:07	02/21/12 19:18	1

2

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Cample ID: 400 40050

Client Sample ID: Post-Carbon

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte

Arsenic

Iron

рΗ

Date Collected: 02/16/12 14:00 Date Received: 02/16/12 15:10 Lab Sample ID: 480-16253-1

Analyzed

02/20/12 16:35

02/20/12 16:35

02/16/12 23:22

TestAmerica Job ID: 480-16253-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.047	0.010	ug/L		02/18/12 08:07	02/21/12 19:18	1
Endosulfan II	ND		0.047	0.011	ug/L		02/18/12 08:07	02/21/12 19:18	1
Endosulfan sulfate	ND		0.047	0.015	ug/L		02/18/12 08:07	02/21/12 19:18	1
Endrin	ND		0.047	0.013	ug/L		02/18/12 08:07	02/21/12 19:18	1
Endrin aldehyde	ND		0.047	0.015	ug/L		02/18/12 08:07	02/21/12 19:18	1
Heptachlor	ND		0.047	0.0080	ug/L		02/18/12 08:07	02/21/12 19:18	1
Heptachlor epoxide	ND		0.047	0.0050	ug/L		02/18/12 08:07	02/21/12 19:18	1
Toxaphene	ND		0.47	0.11	ug/L		02/18/12 08:07	02/21/12 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		15 - 125				02/18/12 08:07	02/21/12 19:18	1
Tetrachloro-m-xylene	84		36 - 121				02/18/12 08:07	02/21/12 19:18	1

RL

10.0

50.0

MDL Unit

5.6 ug/L

19.3 ug/L

0.100 SU

D

Prepared

02/20/12 09:00

02/20/12 09:00

Manganese	166		3.0	0.30	ug/L		02/20/12 09:00	02/20/12 16:35	1
Zinc	3.4	J	10.0	1.7	ug/L		02/20/12 09:00	02/20/12 16:35	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	1.4	J	4.9	1.4	mg/L		02/17/12 09:04	02/17/12 11:38	1
Cyanide, Total	0.37		0.010	0.0050	mg/L		02/17/12 10:40	02/21/12 15:18	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		02/17/12 12:56	02/17/12 15:22	1
Total Dissolved Solids	818		10.0	4.0	mg/L			02/22/12 14:47	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			02/17/12 11:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			02/20/12 19:42	

0.100

Result Qualifier

ND

137

7.52 HF

6

6

9

10

4

Dil Fac

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Client Sample ID: Pre-Carbon

Date Collected: 02/16/12 13:45 Date Received: 02/16/12 15:10 Lab Sample ID: 480-16255-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			02/23/12 11:44	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			02/23/12 11:44	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			02/23/12 11:44	20
1,1-Dichloroethane	ND		20	7.6	ug/L			02/23/12 11:44	20
1,1-Dichloroethene	ND		20	5.8	ug/L			02/23/12 11:44	20
1,2-Dichloroethane	ND		20	4.2	ug/L			02/23/12 11:44	20
1,2-Dichloroethene, Total	ND		40	14	ug/L			02/23/12 11:44	20
1,2-Dichloropropane	ND		20	14	ug/L			02/23/12 11:44	20
2-Hexanone	ND		100	25	ug/L			02/23/12 11:44	20
2-Butanone (MEK)	ND		200	26	ug/L			02/23/12 11:44	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			02/23/12 11:44	20
Acetone	ND		200	60	ug/L			02/23/12 11:44	20
Benzene	1600		20	8.2	ug/L			02/23/12 11:44	20
Bromodichloromethane	ND		20	7.8	ug/L			02/23/12 11:44	20
Bromoform	ND		20	5.2	ug/L			02/23/12 11:44	20
Bromomethane	ND		20	14	ug/L			02/23/12 11:44	20
Carbon disulfide	ND		20	3.8	ug/L			02/23/12 11:44	20
Carbon tetrachloride	ND		20	5.4	ug/L			02/23/12 11:44	20
Chlorobenzene	ND		20	15	ug/L			02/23/12 11:44	20
Dibromochloromethane	ND		20	6.4	ug/L			02/23/12 11:44	20
Chloroethane	ND		20	6.4	ug/L			02/23/12 11:44	20
Chloroform	ND		20	6.8	ug/L			02/23/12 11:44	20
Chloromethane	ND		20	7.0	ug/L			02/23/12 11:44	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			02/23/12 11:44	20
Ethylbenzene	69		20	15	ug/L			02/23/12 11:44	20
Methylene Chloride	ND		20	8.8	ug/L			02/23/12 11:44	20
Styrene	ND		20	15	ug/L			02/23/12 11:44	20
Tetrachloroethene	ND		20	7.2	ug/L			02/23/12 11:44	20
Toluene	310		20	10	ug/L			02/23/12 11:44	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			02/23/12 11:44	20
Trichloroethene	ND		20	9.2	ug/L			02/23/12 11:44	20
Vinyl chloride	ND		20	18	ug/L			02/23/12 11:44	20
Vinyl acetate	ND		100	17	ug/L			02/23/12 11:44	20
Xylenes, Total	120		40	13	ug/L			02/23/12 11:44	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		66 - 137			_		02/23/12 11:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		66 - 137		02/23/12 11:44	20
Toluene-d8 (Surr)	101		71 - 126		02/23/12 11:44	20
4-Bromofluorobenzene (Surr)	105		73 - 120		02/23/12 11:44	20

Method: 8021B - Volatile Organ	nic Compounds (	GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	4.9		2.0	0.35	ug/L			02/21/12 13:44	10
1,3,5-Trimethylbenzene	2.7		2.0	1.5	ug/L			02/21/12 13:44	10
Benzene	1200		10	1.2	ug/L			02/21/12 14:26	50
Ethylbenzene	43		2.0	0.29	ug/L			02/21/12 13:44	10
Isopropylbenzene	ND		2.0	0.27	ug/L			02/21/12 13:44	10
Methyl tert-butyl ether	ND		4.0	0.44	ug/L			02/21/12 13:44	10
m,p-Xylene	48		4.0	0.54	ug/L			02/21/12 13:44	10
n-Butylbenzene	ND		2.0	0.31	ug/L			02/21/12 13:44	10
n-Propylbenzene	ND		2.0	1.3	ug/L			02/21/12 13:44	10

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-16255-1

TestAmerica Job ID: 480-16253-1

02/20/12 21:07

**Matrix: Wastewater** 

CI	ient	Sample	D:	Pre-Ca	arbon

Date Collected: 02/16/12 13:45 Date Received: 02/16/12 15:10

**Alkalinity, Total** 

Method: 8021B - Volatile O Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	51		2.0	0.27	ug/L			02/21/12 13:44	10
p-Cymene	ND		2.0	0.30	ug/L			02/21/12 13:44	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			02/21/12 13:44	10
Toluene	190		2.0	0.36	ug/L			02/21/12 13:44	10
Xylenes, Total	99		6.0	0.54	ug/L			02/21/12 13:44	10
Calcium	141000		500	100	ug/L	— –	02/20/12 09:00	02/20/12 17:53	1
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Iron	169		50.0	19.3	ug/L		02/20/12 09:00	02/20/12 17:53	1
Magnesium	64000		200	43.4	ug/L		02/20/12 09:00	02/20/12 17:53	1
Potassium	3990		500	200	ug/L		02/20/12 09:00	02/20/12 17:53	1
Sodium	62700		1000	324	ug/L		02/20/12 09:00	02/20/12 17:53	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	105		1.0	0.56	mg/L			02/22/12 16:57	2
Sulfate	156		4.0	0.70	mg/L			02/22/12 16:57	2

50.0

20.0 mg/L

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-16253-1

Lab Sample ID: 480-16255-1

**Matrix: Wastewater** 

Matrix: Wastewater

Client Sample ID: Post-Carbon

Date Collected: 02/16/12 14:00 Date Received: 02/16/12 15:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			52309	02/21/12 18:06	RL	TAL BUF
Total/NA	Prep	3510C			52047	02/17/12 15:08	KB	TAL BUF
Total/NA	Analysis	8270C		1	52475	02/22/12 14:56	HTL	TAL BUF
Total/NA	Analysis	8021B		1	52264	02/21/12 15:06	DB	TAL BUF
Total/NA	Prep	3510C			52095	02/18/12 08:07	MRB	TAL BUF
Total/NA	Analysis	608		1	52284	02/21/12 19:18	DB	TAL BUF
Total/NA	Prep	200.7			52063	02/20/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	52293	02/20/12 16:35	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	51932	02/16/12 23:22	KJ	TAL BUF
Total/NA	Prep	1664A			51965	02/17/12 09:04	JS	TAL BUF
Total/NA	Analysis	1664A		1	51976	02/17/12 11:38	JS	TAL BUF
Total/NA	Prep	Distill/Phenol			52028	02/17/12 12:56	AP	TAL BUF
Total/NA	Analysis	420.4		1	52056	02/17/12 15:22	JR	TAL BUF
Total/NA	Analysis	SM 5210B		1	52078	02/17/12 11:48	AP	TAL BUF
Total/NA	Analysis	SM 2540D		1	52247	02/20/12 19:42	KJ	TAL BUF
Total/NA	Prep	Distill/CN			52064	02/17/12 10:40	JR	TAL BUF
Total/NA	Analysis	335.4		1	52395	02/21/12 15:18	JR	TAL BUF
Total/NA	Analysis	SM 2540C		1	52555	02/22/12 14:47	KJ	TAL BUF

Client Sample ID: Pre-Carbon

Date Collected: 02/16/12 13:45

Date Received: 02/16/12 15:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	52616	02/23/12 11:44	CDC	TAL BUF
Total/NA	Analysis	8021B		50	52264	02/21/12 14:26	DB	TAL BUF
Total/NA	Analysis	8021B		10	52264	02/21/12 13:44	DB	TAL BUF
Total/NA	Prep	200.7			52066	02/20/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	52294	02/20/12 17:53	AH	TAL BUF
Total/NA	Analysis	310.2		5	52262	02/20/12 21:07	KS	TAL BUF
Total/NA	Analysis	300.0		2	52511	02/22/12 16:57	KAC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-16253-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
estAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
estAmerica Buffalo	USDA	USDA		P330-08-00242
estAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
ΓestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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#### **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-16253-1

lethod	Method Description	Protocol	Laboratory
260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
08	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
664A	HEM and SGT-HEM	1664A	TAL BUF
00.0	Anions, Ion Chromatography	MCAWW	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
20.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
M 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 5210B	BOD, 5-Day	SM	TAL BUF

#### Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-16253-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16253-1	Post-Carbon	Wastewater	02/16/12 14:00	02/16/12 15:10
480-16255-1	Pre-Carbon	Wastewater	02/16/12 13:45	02/16/12 15:10

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#### TestAmerica Buffalo

, 10 Hazelwood Drive

Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991

# **Chain of Custody Record**

<u>TestAmeri</u>	C	O
THE LEADER IN A NVIPCHMAET IA.	14.15	, ·.

FIIONE (710) 691-2000 Pax (710) 691-7991	Sampler: 3(E1) Phone: 484	J-M:	oc.	Lab	PM:	<b></b>					_	Ci	rrier	rackin	g No(s	<b>s)</b> :			COC No:	
Client Information Client Contact	Phone:	1000	23201	FIS E-M	cher, E lait:	orian						$\dashv$							480-8769-1178.1 Page:	
Thomas Palmer	484	-645	2301	sind	an.fisch	her@	testan	nerice	aine.c	com		ᆚ							Page 1 of 1	
Company: Groundwater & Environmental Services Inc					1				An	alys	s R	eau	este	d				`	Job#:	
Address:	Due Date Réquest	led:				4				Ī	Ī	7	T	Ī		Τ	T		Preservation Cod	.es:
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			Sample	Matrix		200,7 - (MOD) Local Mithed	đ	420.4 - Phandits, Total Recoverable	82508 - (MOD) TCL Kat OLM84.2	80218 - (IAOD) STARS List - VOA - 8021	605_Pest - Priority Poliviant Pasticidas	8270C - (MOD) TCL, SVOA - OLINDA,2	or ion - consequent or year content	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500 H+ - PH	(	2		
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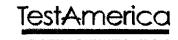
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#### -TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**



Phone (716) 691-2600 Fax (716) 691-7991																				NVIRONMENTAL TEST NG
Client Information	Samples 1er	Sent-Miller Fischer, B 84-645-2301 E-Mail brian.fisch				rian					С	arrier	' Traci	king N	Vo(s):			COC No: 480-8782-1179.1		
Client Contact: Thomas Palmer	Phone: U &U	-645	-230	E-Ma bria	<sub>iil</sub> n.fisch	ner@	testar	neric	ainc.	com									Page: Page 1 of 1	
Company: Groundwater & Environmental Services Inc									Ar	aiys	is F	łequ	est	ed					Job #:	
Address: 158 Sonwil Drive	Due Date Reques	led:								Ţ								T	Preservation Cod	
City: Cheektowaga	TAT Requested (c	lays):																) 	A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip: NY, 14225	10	MAY							7										D - Nitric Acid E - NaHSO4 F - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2SO3
Phone:	PO #: Purchase Orde	r not requir			٦		\ \	Ы	8021	ĺ								:	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email: tpalmer@gesonline.com	WO #:				200	***	1.5	2	VOA -										i - Ice J - Di Waler	U - Acetone V - MCAA
Project Name: NYSDEC - Gastown WWTP/Gastown	Project #: 48002525				٤١	al Met	₽ Bot	OLM	Lat -	`					l			containers	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
Site: New York	SSOW#:	<del></del>			du	) Loc	<u>₹</u>	동	rars	Total				ĺ	-					
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G≃grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered S	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity,								Total Number of		structions/Note:
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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-16253-1

Login Number: 16253 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
ontainers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
here is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
/OA sample vials do not have headspace or bubble is <6mm (1/4") in liameter.	True	
f necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
amples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-16253-1

Login Number: 16255 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

Creator: May, Joel M		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-17625-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by:

4/5/2012 4:06:55 PM Brian Fischer Project Manager II

brian.fischer@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Brian Fischer Project Manager II 4/5/2012 4:06:55 PM

TestAmerica Job ID: 480-17625-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	
Definitions	
Case Narrative	5
Client Sample Results	
Chronicle	
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receint Checklists	15

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Reporting Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 480-17625-1

#### **Qualifiers**

#### **GC VOA**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
HF	Field parameter with a holding time of 15 minutes

#### Glossary

RL

RPD

TEF

TEQ

<u> </u>	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\times</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control

Relative Percent Difference, a measure of the relative difference between two points

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

Job ID: 480-17625-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-17625-1

#### Receipt

All samples were received in good condition within temperature requirements.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method 300.0: In batch 57492, the following samples were diluted due to the abundance of target analytes: Pre-Carbon (480-17625-1). Elevated reporting limits (RLs) are provided.

Method 300.0: In batch 58175, the following samples were diluted due to the abundance of target analytes: Pre-Carbon (480-17625-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC VOA

No analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **General Chemistry**

Method 310.2: The method blank for batch 57222 contained alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.Pre-Carbon (480-17625-1)

Method 9040B, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-17626-1)

No other analytical or quality issues were noted.

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# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

Lab Sample ID: 480-17625-1

**Matrix: Wastewater** 

Client Sample ID: Pre-Carbon Date Collected: 03/23/12 09:35

Date Received: 03/23/12 10:30

Method: 200.7 Rev 4.4 - Metals (	ICP)								
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	149000		500	100	ug/L		03/27/12 08:40	03/27/12 19:21	1
Iron	212		50.0	19.3	ug/L		03/27/12 08:40	03/27/12 19:21	1
Magnesium	76700		200	43.4	ug/L		03/27/12 08:40	03/27/12 19:21	1
Potassium	4160		500	100	ug/L		03/27/12 08:40	03/27/12 19:21	1
Sodium	74100		1000	324	ug/L		03/27/12 08:40	03/27/12 19:21	1
- General Chemistry									
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	105		1.0	0.56	mg/L			04/02/12 16:12	2
Sulfate	143		4.0	0.70	mg/L			04/04/12 20:03	2
Alkalinity, Total	423 I	В	50.0	20.0	mg/L			03/29/12 06:09	5

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 03/23/12 09:30 Date Received: 03/23/12 10:30 Lab Sample ID: 480-17626-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/24/12 23:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/24/12 23:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/24/12 23:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/24/12 23:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/24/12 23:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/24/12 23:59	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			03/24/12 23:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/24/12 23:59	1
2-Hexanone	ND		5.0	1.2	ug/L			03/24/12 23:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/24/12 23:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/24/12 23:59	1
Acetone	ND		10	3.0	ug/L			03/24/12 23:59	1
Benzene	ND		1.0	0.41	ug/L			03/24/12 23:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/24/12 23:59	1
Bromoform	ND		1.0	0.26	ug/L			03/24/12 23:59	1
Bromomethane	ND		1.0	0.69	ug/L			03/24/12 23:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/24/12 23:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/24/12 23:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/24/12 23:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/24/12 23:59	1
Chloroethane	ND		1.0	0.32	ug/L			03/24/12 23:59	1
Chloroform	5.6		1.0	0.34	ug/L			03/24/12 23:59	1
Chloromethane	ND		1.0	0.35	ug/L			03/24/12 23:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/24/12 23:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/24/12 23:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/24/12 23:59	1
Styrene	ND		1.0	0.73	ug/L			03/24/12 23:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/24/12 23:59	1
Toluene	ND		1.0	0.51	ug/L			03/24/12 23:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/24/12 23:59	1
Trichloroethene	ND		1.0	0.46	ug/L			03/24/12 23:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/24/12 23:59	1
Vinyl acetate	ND		5.0	0.85	ug/L			03/24/12 23:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/24/12 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		66 - 137		03/24/12 23:59	1
Toluene-d8 (Surr)	106		71 - 126		03/24/12 23:59	1
4-Bromofluorobenzene (Surr)	94		73 - 120		03/24/12 23:59	1

Mathadi 0004D	Valatila Ossani	ia Campannal	100
Method: 8021B -	voiatile Organ	ic Compounds	(GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			03/27/12 10:43	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			03/27/12 10:43	1
Benzene	0.047	J	0.20	0.023	ug/L			03/27/12 10:43	1
Ethylbenzene	ND		0.20	0.029	ug/L			03/27/12 10:43	1
Isopropylbenzene	ND		0.20	0.027	ug/L			03/27/12 10:43	1
Methyl tert-butyl ether	0.31	J	0.40	0.044	ug/L			03/27/12 10:43	1
m,p-Xylene	ND		0.40	0.054	ug/L			03/27/12 10:43	1
n-Butylbenzene	ND		0.20	0.031	ug/L			03/27/12 10:43	1
n-Propylbenzene	ND		0.20	0.13	ug/L			03/27/12 10:43	1

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 03/23/12 09:30 Date Received: 03/23/12 10:30 Lab Sample ID: 480-17626-1

TestAmerica Job ID: 480-17625-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			03/27/12 10:43	1
p-Cymene	ND		0.20	0.030	ug/L			03/27/12 10:43	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			03/27/12 10:43	1
Toluene	ND		0.20	0.036	ug/L			03/27/12 10:43	1
Xylenes, Total	ND		0.60	0.054	ug/L			03/27/12 10:43	1
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
Method: 200.7 Rev 4.4 - Metals (ICP)									
	Result	Qualifier	50.0 -		Unit ug/L	<u>D</u>	Prepared 03/27/12 08:40	Analyzed 03/27/12 19:19	Dil Fac
Iron		Qualifier				<u>D</u>			Dil Fac
Iron	190	Qualifier		19.3		D			Dil Fac
Iron General Chemistry	190		50.0	19.3	ug/L Unit		03/27/12 08:40	03/27/12 19:19	1
General Chemistry Analyte	190 Result 0.39		50.0	19.3 MDL 0.0050	ug/L Unit		03/27/12 08:40  Prepared	03/27/12 19:19  Analyzed	1

#### **Lab Chronicle**

Client: New York State D.E.C.

Date Collected: 03/23/12 09:35

Date Received: 03/23/12 10:30

Client Sample ID: Pre-Carbon

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

Lab Sample ID: 480-17625-1

**Matrix: Wastewater** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			56760	03/27/12 08:40	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	57023	03/27/12 19:21	MM	TAL BUF
Total/NA	Analysis	310.2		5	57222	03/29/12 06:09	PN	TAL BUF
Total/NA	Analysis	300.0		2	57492	04/02/12 16:12	KAC	TAL BUF
Total/NA	Analysis	300.0		2	58175	04/04/12 20:03	KAC	TAL BUF

Lab Sample ID: 480-17626-1 **Client Sample ID: Post-Carbon** 

Date Collected: 03/23/12 09:30 **Matrix: Wastewater** 

Date Received: 03/23/12 10:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			56618	03/24/12 23:59	JMB	TAL BUF
Total/NA	Analysis	8021B		1	56810	03/27/12 10:43	DB	TAL BUF
Total/NA	Prep	200.7			56760	03/27/12 08:40	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	57023	03/27/12 19:19	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	56642	03/24/12 16:00	PN	TAL BUF
Total/NA	Prep	Distill/CN			56968	03/27/12 16:55	PJQ	TAL BUF
Total/NA	Analysis	335.4		1	57171	03/28/12 17:00	PJQ	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

aboratory	Authority	Program	EPA Region	Certification ID
estAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
estAmerica Buffalo	California	NELAC	9	1169CA
estAmerica Buffalo	Connecticut	State Program	1	PH-0568
estAmerica Buffalo	Florida	NELAC	4	E87672
estAmerica Buffalo	Georgia	State Program	4	956
estAmerica Buffalo	Georgia	State Program	4	N/A
estAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
estAmerica Buffalo	Iowa	State Program	7	374
estAmerica Buffalo	Kansas	NELAC	7	E-10187
estAmerica Buffalo	Kentucky	State Program	4	90029
estAmerica Buffalo	Kentucky (UST)	State Program	4	30
estAmerica Buffalo	Louisiana	NELAC	6	02031
estAmerica Buffalo	Maine	State Program	1	NY0044
estAmerica Buffalo	Maryland	State Program	3	294
estAmerica Buffalo	Massachusetts	State Program	1	M-NY044
estAmerica Buffalo	Michigan	State Program	5	9937
estAmerica Buffalo	Minnesota	NELAC	5	036-999-337
estAmerica Buffalo	New Hampshire	NELAC	1	2337
estAmerica Buffalo	New Hampshire	NELAC	1	68-00281
estAmerica Buffalo	New Jersey	NELAC	2	NY455
estAmerica Buffalo	New York	NELAC	2	10026
estAmerica Buffalo	North Dakota	State Program	8	R-176
estAmerica Buffalo	Oklahoma	State Program	6	9421
estAmerica Buffalo	Oregon	NELAC	10	NY200003
estAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
estAmerica Buffalo	Tennessee	State Program	4	TN02970
estAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
stAmerica Buffalo	USDA	Federal		P330-08-00242
stAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
stAmerica Buffalo	Virginia	State Program	3	278
estAmerica Buffalo	Washington	State Program	10	C1677
estAmerica Buffalo	West Virginia DEP	State Program	3	252
estAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	PΗ	SM	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-17625-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-17625-1	Pre-Carbon	Wastewater	03/23/12 09:35	03/23/12 10:30
480-17626-1	Post-Carbon	Wastewater	03/23/12 09:30	03/23/12 10:30

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#### TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**

<u>TestAm</u>	<u> erica</u>
THE LEADER IN ENVIRO	NMENTAL TUSTING

Phone (716) 691-2600 Fax (716) 691-7991	_																				NVIRONMENTAL	. TESTING
Client Information	SamplerBren	HM.	ller	Lab Fis	cher,	Bria	an						(	Carrier Tracking No(s).					COC No: 480-8741-1176.1			
Client Contact: Thomas Palmer	Phone: 484	-645	-2301	E-M bria	lail: an.fise	cher	r@te	estam	erica	ainc.e	com								Pag Pag	ge: ige 1 of 1		
Company: Groundwater & Environmental Services Inc										An	alys	is F	lequ	este	d				Job	#:		
Address: 158 Sonwil Drive	Due Date Reques	ted:				, de												Т	Pre	eservation Co	des:	
City:	TAT Requested (c	iavs): .			┨	.														HCL NaOH	M - Hexane N - None	
Cheektowaga	1	<i>I</i> A 11:1																C-	- Zn Acetate	O - AsNaO2		
State, Zip: NY, 14225																			E٠	- Nitric Acid - NaHSO4 - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2SO3	13
Phone:	PO #: Purchase Orde	r not requir			- <u>[</u>							-							G-	- Amchior - Ascorbic Acid	S - H2SO4 T - TSP Dodec	
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tpalmer@gesonline.com . Project Name:	Project #:			•	-  š	or No	Method				)		- 1					ars	älκ.	- EDTA	W - ph 4-5	*
NYSDEC - Gastown WWTP/Gastown	48002525					်န္တ	Z I	Method										contain	<u> </u>	EDA	Z - other (spec	olfy)
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			Sample	(Wewster, Sesorial	Fleid Filtered	Perform MS/MSD (Yes	300.0_28D · (MOD)	200.7 - (MOD) Local	310.2 - Alkalinity,				-					Numbar				
·	1	Sample	Type (C=Comp,	Owwaste/oli, BT=Tisque,	ᄪ	튀	0_2	)-7-	2-4									교	<u>.</u>			
Sample Identification	Sample Date	Time	G=grab)	A=Air)	윤	P. P.	300	200	310							1		Total	<u> </u>	Special for	nstructions/N	lote:
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Pre-Carbon	5-23-12	0935	G	Water			X	X	X										-			
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1 Yes 1 No

#### TestAmerica Buffalo

10 Hazelwood Drive

#### **Chain of Custody Record**

<u>Test</u>	۲	Υ	er	ica

Amherst. NY 14228-2298 THE LEADER IN ENVISIONMENTAL TEST N Phone (716) 691-2600 Fax (716) 691-7991 Sampler Brent Miller Phone: 484-845 - 2301 Carrier Tracking No(s): Fischer, Brian Client Information 480-8756-1177.1 Client Contact: Page: Thomas Palmer brian.fischer@testamericainc.com Page 1 of 1 Company Job #: Groundwater & Environmental Services Inc. **Analysis Requested** Due Date Requested: Preservation Codes: 158 Sonwil Drive A-HCL M - Hexane TAT Requested (days): B - NeOH N - None Cheektowaga C - Zn Acelate O - AsNaO2 State, Zip D - Nitric Acid P - Na2O4S NY, 14225 E - NaHSO4 Q - Na2SQ3 F · MeOH R - Na2S2SO3 Phone G - Amphior 8021B - (MOD) STARS List - VOA - 8021 S - H2SO4 Purchase Order not requir H - Ascorbic Acid T - TSP Dodecahydrale WO #. I - Ice U - Acetone 8260B - (MOD) TCL IIst OLM04.2 tpalmer@gesonline.com J - Dí Water Onters Containers Containers Containers Containers Containers Containers V - MCAA K - EDTA Project # W - ph 4-5 L - EDA NYSDEC - Gastown WWTP/Gastown 48002525 Z - other (specify) SSOW#: New York ₽ Matrix Total Number Sample (Wowster, Se solid, Type Sample (C=comp, BT=Tissure. Sample Identification Sample Date Time G=grab) A=Air) Special Instructions/Note: Preservation Code: 3-23-12 0930 Post-Carbon Water Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Possible Hazard Identification Disposal By Lab Non Hazard Flammable Skin Irritant Poison B Unknown Radiological Return To Client Deliverable Requested I, II, III, IV, Other (specify) Special Instructions/QC Requirements. Empty Kit Relinquished by: Method of Shipmen Company Attooursed by Date/Time Company Received by: Custody Seals Intact Custody Seal No.: Cooler Temperature(s) °C and Other Remarks 47











# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-17625-1

Login Number: 17625 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

ackground  True  The cooler's custody seal, if present, is intact.  The cooler's custody seal, if present, is intact.  The cooler or samples do not appear to have been compromised or ampered with.  True  amples were received on ice.  True  Cooler Temperature is acceptable.  True  Cooler Temperature is recorded.  True  Cooler Temperature is recorded.  True  Cooler Spresent.  True  Cooler Temperature is recorded.  True  Cooler Temper	Question	Answer	Comment
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- Para 14. 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Samples received within 48 hours of sampling.	True	
Phlorina Pasidual chacked	Samples requiring field filtration have been filtered in the field.	N/A	
onionne residual checked.	Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-17625-1

Login Number: 17626 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
here is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
/OA sample vials do not have headspace or bubble is <6mm (1/4") in liameter.	True	
f necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
amples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-19111-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by:

5/9/2012 4:22:24 PM Brian Fischer

Project Manager II brian.fischer@testamericainc.com

.....LINKS .....

**Review your project** results through **Total Access** 

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

B. P.

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Brian Fischer Project Manager II 5/9/2012 4:22:24 PM

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- 10

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	
Chronicle	
Certification Summary	10
Method Summary	
Sample Summary	12
Chain of Custody	13
Racaint Chacklists	15

4

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9

10

## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

### **Qualifiers**

### **GC VOA**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Metals**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.

### **General Chemistry**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
HF	Field parameter with a holding time of 15 minutes

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

Job ID: 480-19111-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-19111-1

#### Comments

No additional comments.

The samples were received on 4/25/2012 3:45 PM; the samples arrived in good conditions, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.10 C and 3.50 C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method(s) 300.0: The method blank for preparation batch 62316 contained Chloride and Sulfate above the reporting limit (RL). The associated sample contained detects for these analytes at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: In batch 62316 the following samples were diluted due to the abundance of target analytes: Pre-Carbon (480-19111-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC VOA

No analytical or quality issues were noted.

#### Metals

Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-61533 contained total potassium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Pre-Carbon (480-19111-1) was not performed.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method(s) 335.4, 9012A, SM 4500 CN E: The method blank for batch 62565 contained Cyanide above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. Post-Carbon (480-19114-1)

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-19114-1)

No other analytical or quality issues were noted.

## **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

**Client Sample ID: Pre-Carbon** 

Date Collected: 04/25/12 14:40 Date Received: 04/25/12 15:45 Lab Sample ID: 480-19111-1

Method: 200.7 Rev 4.4 - Metals	(ICP)								
Analyte	Result Q	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		500	100	ug/L		04/26/12 09:00	04/26/12 16:35	1
Iron	505		50.0	19.3	ug/L		04/26/12 09:00	04/26/12 16:35	1
Magnesium	85800		200	43.4	ug/L		04/26/12 09:00	04/26/12 16:35	1
Potassium	4360 B	3	500	100	ug/L		04/26/12 09:00	04/26/12 16:35	1
Sodium	65400		1000	324	ug/L		04/26/12 09:00	04/26/12 16:35	1
General Chemistry									
Analyte	Result Q	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	103 B	<u> </u>	1.0	0.56	mg/L			05/02/12 09:09	2
Sulfate	156 B	3	4.0	0.70	mg/L			05/02/12 09:09	2
Alkalinity, Total	465		100	40.0	mg/L			05/07/12 14:13	10

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Method: 8260B - Volatile Organic Compounds (GC/MS)

**Client Sample ID: Post-Carbon** 

Date Received: 04/25/12 15:45

Date Collected: 04/25/12 14:30

Lab Sample ID: 480-19114-1 **Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/12 00:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/12 00:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/12 00:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/12 00:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/12 00:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/02/12 00:09	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			05/02/12 00:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/12 00:09	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/12 00:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/12 00:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/02/12 00:09	1
Acetone	ND		10	3.0	ug/L			05/02/12 00:09	1
Benzene	ND		1.0	0.41	ug/L			05/02/12 00:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/12 00:09	1
Bromoform	ND		1.0	0.26	ug/L			05/02/12 00:09	1
Bromomethane	ND		1.0	0.69	ug/L			05/02/12 00:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/12 00:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/12 00:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/12 00:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/12 00:09	1
Chloroethane	ND		1.0	0.32	ug/L			05/02/12 00:09	1
Chloroform	6.3		1.0	0.34	ug/L			05/02/12 00:09	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/12 00:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/12 00:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/12 00:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/12 00:09	1
Styrene	ND		1.0	0.73	ug/L			05/02/12 00:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/12 00:09	1
Toluene	ND		1.0	0.51	ug/L			05/02/12 00:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/12 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		66 - 137		05/02/12 00:09	1
Toluene-d8 (Surr)	108		71 - 126		05/02/12 00:09	1
4-Bromofluorobenzene (Surr)	103		73 - 120		05/02/12 00:09	1

1.0

1.0

5.0

2.0

0.46 ug/L

0.90 ug/L

0.85 ug/L

0.66 ug/L

Method: 8021B - Volatile Organic Compounds (GC)

ND

ND

ND

ND

Trichloroethene

Vinyl chloride

Vinyl acetate

Xylenes, Total

Method: 0021B - Volutile Organic Comp	ounds	(33)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			05/02/12 13:56	1	
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			05/02/12 13:56	1	
Benzene	ND		0.20	0.023	ug/L			05/02/12 13:56	1	
Ethylbenzene	ND		0.20	0.029	ug/L			05/02/12 13:56	1	
Isopropylbenzene	ND		0.20	0.027	ug/L			05/02/12 13:56	1	
Methyl tert-butyl ether	0.14	JB	0.40	0.044	ug/L			05/02/12 13:56	1	
m,p-Xylene	ND		0.40	0.054	ug/L			05/02/12 13:56	1	
n-Butylbenzene	ND		0.20	0.031	ug/L			05/02/12 13:56	1	
n-Propylbenzene	ND		0.20	0.13	ug/L			05/02/12 13:56	1	

05/02/12 00:09

05/02/12 00:09

05/02/12 00:09

05/02/12 00:09

## **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

**Client Sample ID: Post-Carbon** 

Date Collected: 04/25/12 14:30 Date Received: 04/25/12 15:45 Lab Sample ID: 480-19114-1

	ic Compounds (		•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			05/02/12 13:56	1
p-Cymene	ND		0.20	0.030	ug/L			05/02/12 13:56	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			05/02/12 13:56	1
Toluene	ND		0.20	0.036	ug/L			05/02/12 13:56	1
Xylenes, Total	ND		0.60	0.054	ug/L			05/02/12 13:56	1
Iron	110		50.0	19.3	ug/L		04/26/12 09:00	04/26/12 16:37	1
Method: 200.7 Rev 4.4 - Metals ( Analyte	,	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
-									
<b>General Chemistry</b>									
•	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result 0.19		RL 0.010	MDL 0.0050		<u>D</u>	Prepared 04/30/12 15:13	<b>Analyzed</b> 05/01/12 14:58	Dil Fac
General Chemistry Analyte Cyanide, Total Analyte	0.19			0.0050		D_			Dil Fac

### **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

Lab Sample ID: 480-19111-1

**Matrix: Wastewater** 

Client Sample ID: Pre-Carbon Date Collected: 04/25/12 14:40

Date Received: 04/25/12 15:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			61533	04/26/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	61812	04/26/12 16:35	LH	TAL BUF
Total/NA	Analysis	300.0		2	62316	05/02/12 09:09	RMM	TAL BUF
Total/NA	Analysis	310.2		10	63426	05/07/12 14:13	PJQ	TAL BUF

Client Sample ID: Post-Carbon Lab Sample ID: 480-19114-1

Date Collected: 04/25/12 14:30 Matrix: Wastewater

Date Received: 04/25/12 15:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	-	1	62567	05/02/12 00:09	DC	TAL BUF
Total/NA	Analysis	8021B		1	62603	05/02/12 13:56	DB	TAL BUF
Total/NA	Prep	200.7			61533	04/26/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	61812	04/26/12 16:37	LH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	61553	04/25/12 22:18	KS	TAL BUF
Total/NA	Prep	Distill/CN			62395	04/30/12 15:13	LAW	TAL BUF
Total/NA	Analysis	335.4		1	62565	05/01/12 14:58	JR	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

_aboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
estAmerica Buffalo	Kansas	NELAC	7	E-10187
estAmerica Buffalo	Kentucky	State Program	4	90029
estAmerica Buffalo	Kentucky (UST)	State Program	4	30
estAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
estAmerica Buffalo	Massachusetts	State Program	1	M-NY044
estAmerica Buffalo	Michigan	State Program	5	9937
estAmerica Buffalo	Minnesota	NELAC	5	036-999-337
estAmerica Buffalo	New Hampshire	NELAC	1	2337
estAmerica Buffalo	New Hampshire	NELAC	1	68-00281
estAmerica Buffalo	New Jersey	NELAC	2	NY455
estAmerica Buffalo	New York	NELAC	2	10026
estAmerica Buffalo	North Dakota	State Program	8	R-176
estAmerica Buffalo	Oklahoma	State Program	6	9421
estAmerica Buffalo	Oregon	NELAC	10	NY200003
estAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
estAmerica Buffalo	Tennessee	State Program	4	TN02970
estAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
estAmerica Buffalo	USDA	Federal		P330-08-00242
estAmerica Buffalo	Virginia	NELAC	3	460185
estAmerica Buffalo	Virginia	State Program	3	278
estAmerica Buffalo	Washington	State Program	10	C1677
estAmerica Buffalo	West Virginia DEP	State Program	3	252
estAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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## **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

Method	Method Description	Protocol	Laboratory	
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF	
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF	
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF	
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF	
310.2	Alkalinity	MCAWW	TAL BUF	
335.4	Cyanide, Total	MCAWW	TAL BUF	
SM 4500 H+ B	pH	SM	TAL BUF	

#### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-19111-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-19111-1	Pre-Carbon	Wastewater	04/25/12 14:40	04/25/12 15:45
480-19114-1	Post-Carbon	Wastewater	04/25/12 14:30	04/25/12 15:45

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## Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes□ No□



THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)																								
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10 Hazelwood Drive

Amherst, NY 14228-2298

## **Chain of Custody Record**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Phone (/16) 691-2600 Fax (/16) 691-7991				1									-1 <del>-</del>								
Client Information	Samples. Brent Phone: 1-800	Mill	90	Lab P Fisci	ner, B	nan						Can	rier Tra	cking i	No(s).			COC No: 480-875	9-1177.	.1	
Client Contact: Thomas Palmer	Phone: 1 -800	-287-	785	7 E-Mai briar		er@te	estam	nericai	nc.c	om								Page 1	of 1		
Company: Groundwater & Environmental Services Inc									Δr	alysi	s R	eane	sted					Job#:			
Address:	Due Date Requeste	ed:			4 3			П	Ï	1	Ť					丁		Preserva	tion Co	des:	
158 Sonwil Drive	TAT Requested (da	ive)-																A - HCL		M - Hexane	е
City: Cheektowaga			/							- 1								B - NaOF C - Zn Ac	etate	N - None O - AsNaO	
State, Zip: NY, 14225		DA	7															D - Nitric E - NaHS F - MeO <del>l</del>	04	P - Ne2O45 Q - Ne2SO R - Ne2S25	3
Phone.	PO#: Purchase Order	not requir			_			8021										G - Amch H - Ascor	lor	S - H2SO4	
Email* Ipalmer@gesonline.com	WO#:	'			S OF NO		OLM04.2	List - VOA - 8									92	I - Ice J - DI Wa K - EDTA	ler	U - Acetoni V - MCAA	е
Project Name  NYSDEC - Gastown WWTP/Gastown	Project#: 48002525				6 (Ye		OLM	List										L-EDA		W - ph 4-5 Z - other (s	
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			Sample Type	Matrix (w-weter, 9-solid.	Filter	- Iron	8260B - (MOD)	8021B - (MOD)	335.4 - Cyanide, Total	SM4500_H+							Na A				
Sample Identification	Sample Date	Sample Ti <i>m</i> e	(C≃comp, G=grab)	O=westm/oll, BT=Tissue, A=Air)	Fleid	33 P-	1260E	021E	35.4	M45							Total	٠,	ocial Ir	nstructions	Moto:
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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-19111-1

Login Number: 19111 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-19111-1

Login Number: 19114 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

	•	•
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-20198-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Qtrly Post-Carbon Qtrly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by: 6/1/2012 9:38:50 AM

Brian Fischer
Project Manager II

brian.fischer@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

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Brian Fischer Project Manager II 6/1/2012 9:38:50 AM

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TestAmerica Job ID: 480-20198-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	7
Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

3

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

### **Qualifiers**

### **GC/MS VOA**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

X Surrogate is outside control limits

#### **GC VOA**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B Compound was found in the blank and sample.

#### **Metals**

Qualifier Qualifier Description

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
HF	Field parameter with a holding time of 15 minutes
b	Result Detected in the USB
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo 6/1/2012

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

Job ID: 480-20198-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-20198-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/17/2012 11:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were  $3.4^{\circ}$  C and  $4.2^{\circ}$  C.

#### GC/MS VOA

Method(s) 8260B: The following sample(s) was diluted due to the abundance of target analytes: Pre-Carbon (480-20198-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The Matrix Spike Blank (LCS 480-65493/4) recovery was below TestAmerica's statistically developed internal laboratory QC limits, for Chloroethane. This analyte was not a requested spiking compound; therefore the recovery is being reported for advisory purposes only. All other quality control indicators, including the continuing calibration verification, were within method prescribed limits for this analyte.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method(s) 8270C: The following samples contained one acid and/or one base surrogate outside acceptance limits: Post-Carbon (480-20200-1). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

#### Ion Chromatography

Method(s) 300.0: In batch 65779, the following samples were diluted due to the abundance of target analytes: Pre-Carbon (480-20198-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **GC VOA**

Method(s) 8021B: The following samples were diluted due to the abundance of target analytes: (480-20198-1 MS), (480-20198-1 MSD), (CCV 480-66181/12), Pre-Carbon (480-20198-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

No analytical or quality issues were noted.

#### Metals

Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-64954 contained total manganese above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Post-Carbon (480-20200-1) was not performed.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method(s) 310.2: The method blank for batch 65392 contained Alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.Pre-Carbon (480-20198-1)

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#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

#### Job ID: 480-20198-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method(s) 420.4, 9066: The method blank for batch 65874 contained Tolal Recoverable Phenolics above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.Post-Carbon (480-20200-1)

Method(s) SM 5210B: The dilution water D.O. depletion was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L for batch 64961. The associated sample results are reported.

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-20200-1)

No other analytical or quality issues were noted.

#### **Organic Prep**

Method(s) 3510C: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 65446. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 3510C: The surrogate spiking solution was inadvertently omitted during the extraction process for the laboratory control sample duplicate (LCSD) associated with preparation batch 65446; therefore, percent recoveries are unavailable. The spike recoveries of the LCSD were within method limits and the surrogate recoveries of the MB and the LCS were within method limits. Several of the affected samples needed dilutions which affected the surrogate recoveries. The samples will not be re-prepared or re-analyzed, and the results have been reported.

No other analytical or quality issues were noted.

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Pre-Carbon** 

Date Collected: 05/17/12 10:30 Date Received: 05/17/12 11:10 Lab Sample ID: 480-20198-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			05/19/12 19:24	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			05/19/12 19:24	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			05/19/12 19:24	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			05/19/12 19:24	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			05/19/12 19:24	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			05/19/12 19:24	5
1,2-Dichloroethene, Total	ND		10	3.5	ug/L			05/19/12 19:24	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			05/19/12 19:24	5
2-Hexanone	ND		25	6.2	ug/L			05/19/12 19:24	5
2-Butanone (MEK)	ND		50	6.6	ug/L			05/19/12 19:24	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			05/19/12 19:24	5
Acetone	ND		50	15	ug/L			05/19/12 19:24	5
Bromodichloromethane	ND		5.0	2.0	ug/L			05/19/12 19:24	5
Bromoform	ND		5.0	1.3	ug/L			05/19/12 19:24	5
Bromomethane	ND		5.0	3.5	ug/L			05/19/12 19:24	5
Carbon disulfide	ND		5.0	0.95	ug/L			05/19/12 19:24	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			05/19/12 19:24	5
Chlorobenzene	ND		5.0	3.8	ug/L			05/19/12 19:24	5
Dibromochloromethane	ND		5.0	1.6	ug/L			05/19/12 19:24	5
Chloroethane	ND		5.0	1.6	ug/L			05/19/12 19:24	5
Chloroform	ND		5.0	1.7	ug/L			05/19/12 19:24	5
Chloromethane	ND		5.0	1.8	ug/L			05/19/12 19:24	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			05/19/12 19:24	5
Ethylbenzene	300		5.0	3.7	ug/L			05/19/12 19:24	5
Methylene Chloride	ND		5.0	2.2	ug/L			05/19/12 19:24	5
Styrene	86		5.0	3.7	ug/L			05/19/12 19:24	5
Tetrachloroethene	ND		5.0	1.8	ug/L			05/19/12 19:24	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			05/19/12 19:24	5
Trichloroethene	ND		5.0	2.3	ug/L			05/19/12 19:24	5
Vinyl chloride	ND		5.0	4.5	ug/L			05/19/12 19:24	5
Vinyl acetate	ND		25	4.3	ug/L			05/19/12 19:24	5
Xylenes, Total	210		10	3.3	ug/L			05/19/12 19:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		66 - 137			-		05/19/12 19:24	5
Toluene-d8 (Surr)	113		71 - 126					05/19/12 19:24	5
4-Bromofluorobenzene (Surr)	113		73 - 120					05/19/12 19:24	5
- Method: 8260B - Volatile Orga	nic Compounds (	(GC/MS) - D	L						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Welliou. 6260B - Volatile	Organic Compounds (GC/WS) - DL
Analyte	Result Qualifier

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3300		40	16	ug/L			05/21/12 14:08	40
Toluene	810		40	20	ug/L			05/21/12 14:08	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Anaiyzea	DII Fac
1,2-Dichloroethane-d4 (Surr)	91		66 - 137		05/21/12 14:08	40
Toluene-d8 (Surr)	108		71 - 126		05/21/12 14:08	40
4-Bromofluorobenzene (Surr)	112		73 - 120		05/21/12 14:08	40

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	9.5	2.0	0.35	ug/L			05/29/12 13:24	10
1,3,5-Trimethylbenzene	1.8 J	2.0	1.5	ug/L			05/29/12 13:24	10

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

**Client Sample ID: Pre-Carbon** 

Date Collected: 05/17/12 10:30 Date Received: 05/17/12 11:10 Lab Sample ID: 480-20198-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	190		2.0	0.29	ug/L			05/29/12 13:24	10
Isopropylbenzene	ND		2.0	0.27	ug/L			05/29/12 13:24	10
Methyl tert-butyl ether	ND		4.0	0.44	ug/L			05/29/12 13:24	10
m,p-Xylene	88		4.0	0.54	ug/L			05/29/12 13:24	10
n-Butylbenzene	ND		2.0	0.31	ug/L			05/29/12 13:24	10
n-Propylbenzene	ND		2.0	1.3	ug/L			05/29/12 13:24	10
o-Xylene	49		2.0	0.27	ug/L			05/29/12 13:24	10
o-Cymene	ND		2.0	0.30	ug/L			05/29/12 13:24	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			05/29/12 13:24	10
Toluene	460		2.0	0.36	ug/L			05/29/12 13:24	10
Xylenes, Total	220		6.0	0.54	ug/L			05/29/12 13:24	10
Method: 8021B - Volatile Org Analyte Benzene	•	Qualifier	10 RL		Unit ug/L	D	Prepared	Analyzed 05/29/12 14:17	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	148000		500	100			05/18/12 09:00	05/18/12 21:16	1
Iron	654		50.0	19.3	J		05/18/12 09:00	05/18/12 21:16	
Magnesium	81600		200	43.4	•		05/18/12 09:00	05/18/12 21:16	1
Potassium	4390		500		ug/L		05/18/12 09:00	05/18/12 21:16	
Sodium	69300		1000		ug/L		05/18/12 09:00	05/18/12 21:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
			1.0	0.56	mg/L			05/24/12 12:09	
<u> </u>	111X			0.00	····• 9' =				-
Chloride Sulfate	108 170		4.0	0.70	mg/L			05/24/12 12:09	2

TestAmerica Job ID: 480-20198-1

**Client Sample ID: Post-Carbon** 

Date Collected: 05/17/12 10:20 Date Received: 05/17/12 11:10 Lab Sample ID: 480-20200-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/22/12 13:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/22/12 13:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/22/12 13:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/22/12 13:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/22/12 13:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/22/12 13:11	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			05/22/12 13:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/22/12 13:11	1
2-Hexanone	ND		5.0	1.2	ug/L			05/22/12 13:11	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/22/12 13:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/22/12 13:11	1
Acetone	ND		10	3.0	ug/L			05/22/12 13:11	1
Benzene	1.6		1.0	0.41	ug/L			05/22/12 13:11	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/22/12 13:11	1
Bromoform	ND		1.0	0.26	ug/L			05/22/12 13:11	1
Bromomethane	ND		1.0	0.69	ug/L			05/22/12 13:11	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/22/12 13:11	1
Carbon tetrachloride	0.43	J	1.0	0.27	ug/L			05/22/12 13:11	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/22/12 13:11	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/22/12 13:11	1
Chloroethane	ND		1.0	0.32	ug/L			05/22/12 13:11	1
Chloroform	6.8		1.0	0.34	ug/L			05/22/12 13:11	1
Chloromethane	ND		1.0	0.35	ug/L			05/22/12 13:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/22/12 13:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/22/12 13:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/22/12 13:11	1
Styrene	ND		1.0	0.73	ug/L			05/22/12 13:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/22/12 13:11	1
Toluene	ND		1.0	0.51	ug/L			05/22/12 13:11	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/22/12 13:11	1
Trichloroethene	ND		1.0	0.46	ug/L			05/22/12 13:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/22/12 13:11	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/22/12 13:11	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/22/12 13:11	1

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	66 - 137		5/22/12 13:11	1
Toluene-d8 (Surr)	106	71 - 126	05	5/22/12 13:11	1
4-Bromofluorobenzene (Surr)	104	73 - 120	05	5/22/12 13:11	1

Mothod: 8270C	Somiyolatilo	Organic Compour	de (CC/MS)
- Method: 82/UC -	Semivoiatile	Organic Compour	105 (GC/M3)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND ND	4.7	0.57	ug/L		05/19/12 07:16	05/22/12 22:49	1
Acenaphthene	ND	4.7	0.39	ug/L		05/19/12 07:16	05/22/12 22:49	1
Acenaphthylene	ND	4.7	0.36	ug/L		05/19/12 07:16	05/22/12 22:49	1
Anthracene	ND	4.7	0.26	ug/L		05/19/12 07:16	05/22/12 22:49	1
Benzo[a]anthracene	ND	4.7	0.34	ug/L		05/19/12 07:16	05/22/12 22:49	1
Benzo[a]pyrene	ND	4.7	0.44	ug/L		05/19/12 07:16	05/22/12 22:49	1
Benzo[b]fluoranthene	ND	4.7	0.32	ug/L		05/19/12 07:16	05/22/12 22:49	1
Benzo[g,h,i]perylene	ND	4.7	0.33	ug/L		05/19/12 07:16	05/22/12 22:49	1
Benzo[k]fluoranthene	ND	4.7	0.69	ug/L		05/19/12 07:16	05/22/12 22:49	1

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-20200-1

TestAmerica Job ID: 480-20198-1

**Client Sample ID: Post-Carbon** 

Date Collected: 05/17/12 10:20 Date Received: 05/17/12 11:10

Method: 8270C - Semivolatile	Organic Compou	nds (GC/MS)	(Continued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.7	0.62	ug/L		05/19/12 07:16	05/22/12 22:49	1
Bis(2-ethylhexyl) phthalate	ND		4.7	1.7	ug/L		05/19/12 07:16	05/22/12 22:49	1
Carbazole	ND		4.7	0.28	ug/L		05/19/12 07:16	05/22/12 22:49	1
Chrysene	ND		4.7	0.31	ug/L		05/19/12 07:16	05/22/12 22:49	1
Dibenz(a,h)anthracene	ND		4.7	0.40	ug/L		05/19/12 07:16	05/22/12 22:49	1
Dibenzofuran	ND		9.4	0.48	ug/L		05/19/12 07:16	05/22/12 22:49	1
Fluoranthene	ND		4.7	0.38	ug/L		05/19/12 07:16	05/22/12 22:49	1
Fluorene	ND		4.7	0.34	ug/L		05/19/12 07:16	05/22/12 22:49	1
Indeno[1,2,3-cd]pyrene	ND		4.7	0.44	ug/L		05/19/12 07:16	05/22/12 22:49	1
Naphthalene	ND		4.7	0.72	ug/L		05/19/12 07:16	05/22/12 22:49	1
Pentachlorophenol	ND		9.4	2.1	ug/L		05/19/12 07:16	05/22/12 22:49	1
Phenanthrene	ND		4.7	0.42	ug/L		05/19/12 07:16	05/22/12 22:49	1
Phenol	ND		4.7	0.37	ug/L		05/19/12 07:16	05/22/12 22:49	1
Pyrene	ND		4.7	0.32	ug/L		05/19/12 07:16	05/22/12 22:49	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	26	X	52 - 132		05/19/12 07:16	05/22/12 22:49	1
2-Fluorobiphenyl	91		48 - 120		05/19/12 07:16	05/22/12 22:49	1
2-Fluorophenol	32		20 - 120		05/19/12 07:16	05/22/12 22:49	1
Nitrobenzene-d5	82		46 - 120	(	05/19/12 07:16	05/22/12 22:49	1
p-Terphenyl-d14	74		67 - 150		05/19/12 07:16	05/22/12 22:49	1
Phenol-d5	23		16 - 120	(	05/19/12 07:16	05/22/12 22:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			05/29/12 12:28	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			05/29/12 12:28	1
Benzene	1.2	В	0.20	0.023	ug/L			05/29/12 12:28	1
Ethylbenzene	ND		0.20	0.029	ug/L			05/29/12 12:28	1
Isopropylbenzene	ND		0.20	0.027	ug/L			05/29/12 12:28	1
Methyl tert-butyl ether	0.19	J	0.40	0.044	ug/L			05/29/12 12:28	1
m,p-Xylene	ND		0.40	0.054	ug/L			05/29/12 12:28	1
n-Butylbenzene	ND		0.20	0.031	ug/L			05/29/12 12:28	1
n-Propylbenzene	ND		0.20	0.13	ug/L			05/29/12 12:28	1
o-Xylene	ND		0.20	0.027	ug/L			05/29/12 12:28	1
p-Cymene	ND		0.20	0.030	ug/L			05/29/12 12:28	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			05/29/12 12:28	1
Toluene	0.11	J	0.20	0.036	ug/L			05/29/12 12:28	1
Xylenes, Total	ND		0.60	0.054	ug/L			05/29/12 12:28	1

Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND	0.049	0.0064	ug/L		05/22/12 07:17	05/26/12 14:21	1
alpha-BHC	ND	0.049	0.0064	ug/L		05/22/12 07:17	05/26/12 14:21	1
beta-BHC	ND	0.049	0.024	ug/L		05/22/12 07:17	05/26/12 14:21	1
delta-BHC	ND	0.049	0.0098	ug/L		05/22/12 07:17	05/26/12 14:21	1
gamma-BHC (Lindane)	ND	0.049	0.0059	ug/L		05/22/12 07:17	05/26/12 14:21	1
Chlordane (technical)	ND	0.49	0.028	ug/L		05/22/12 07:17	05/26/12 14:21	1
4,4'-DDD	ND	0.049	0.0090	ug/L		05/22/12 07:17	05/26/12 14:21	1
4,4'-DDE	ND	0.049	0.011	ug/L		05/22/12 07:17	05/26/12 14:21	1
4,4'-DDT	ND	0.049	0.011	ug/L		05/22/12 07:17	05/26/12 14:21	1
Dieldrin	ND	0.049	0.0096	ug/L		05/22/12 07:17	05/26/12 14:21	1

Lab Sample ID: 480-20200-1

TestAmerica Job ID: 480-20198-1

**Client Sample ID: Post-Carbon** 

Date Collected: 05/17/12 10:20 Date Received: 05/17/12 11:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.049	0.011	ug/L		05/22/12 07:17	05/26/12 14:21	1
Endosulfan II	ND		0.049	0.012	ug/L		05/22/12 07:17	05/26/12 14:21	1
Endosulfan sulfate	ND		0.049	0.015	ug/L		05/22/12 07:17	05/26/12 14:21	1
Endrin	ND		0.049	0.013	ug/L		05/22/12 07:17	05/26/12 14:21	1
Endrin aldehyde	ND		0.049	0.016	ug/L		05/22/12 07:17	05/26/12 14:21	1
Heptachlor	ND		0.049	0.0083	ug/L		05/22/12 07:17	05/26/12 14:21	1
Heptachlor epoxide	ND		0.049	0.0052	ug/L		05/22/12 07:17	05/26/12 14:21	1
Toxaphene	ND		0.49	0.12	ug/L		05/22/12 07:17	05/26/12 14:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		15 - 125				05/22/12 07:17	05/26/12 14:21	1
Tetrachloro-m-xylene	81		36 - 121				05/22/12 07:17	05/26/12 14:21	1

Method: 200.7 Rev 4.4 - Metals (ICI	<b>'</b> )								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		05/18/12 09:00	05/18/12 21:31	1
Iron	232		50.0	19.3	ug/L		05/18/12 09:00	05/18/12 21:31	1
Manganese	680	В	3.0	0.40	ug/L		05/18/12 09:00	05/18/12 21:31	1
Zinc	3.4	J	10.0	1.5	ug/L		05/18/12 09:00	05/18/12 21:31	1

General Chemistry	- "	0 115	ъ.			_			D.: E
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	1.8	J	5.0	1.4	mg/L		05/21/12 09:55	05/21/12 10:00	1
Cyanide, Total	0.38		0.010	0.0050	mg/L		05/22/12 11:00	05/23/12 13:47	1
Phenolics, Total Recoverable	0.0080	JB	0.010	0.0050	mg/L		05/21/12 19:48	05/23/12 20:28	1
Total Dissolved Solids	948		10.0	4.0	mg/L			05/22/12 01:30	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			05/17/12 20:12	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			05/19/12 11:00	1
pH	7.48	HF	0.100	0.100	SU			05/17/12 19:50	1

TestAmerica Job ID: 480-20198-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Client Sample ID: Pre-Carbon

Date Collected: 05/17/12 10:30 Date Received: 05/17/12 11:10

Client: New York State D.E.C.

Lab Sample ID: 480-20198-1

**Matrix: Wastewater** 

**Matrix: Wastewater** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	65164	05/19/12 19:24	LH	TAL BUF
Total/NA	Analysis	8260B	DL	40	65291	05/21/12 14:08	RL	TAL BUF
Total/NA	Analysis	8021B		10	66181	05/29/12 13:24	DB	TAL BUF
Total/NA	Analysis	8021B	DL	50	66181	05/29/12 14:17	DB	TAL BUF
Total/NA	Prep	200.7			64954	05/18/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	65267	05/18/12 21:16	LH	TAL BUF
Total/NA	Analysis	310.2		10	65392	05/21/12 14:52	PJQ	TAL BUF
Total/NA	Analysis	300.0		2	65779	05/24/12 12:09	KAC	TAL BUF

**Client Sample ID: Post-Carbon** Lab Sample ID: 480-20200-1

Date Collected: 05/17/12 10:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			65493	05/22/12 13:11	LH	TAL BUF
Total/NA	Prep	3510C			65152	05/19/12 07:16	MRB	TAL BUF
Total/NA	Analysis	8270C		1	65497	05/22/12 22:49	RMM	TAL BUF
Total/NA	Analysis	8021B		1	66181	05/29/12 12:28	DB	TAL BUF
Total/NA	Prep	3510C			65446	05/22/12 07:17	TR	TAL BUF
Total/NA	Analysis	608		1	66142	05/26/12 14:21	LW	TAL BUF
Total/NA	Prep	200.7			64954	05/18/12 09:00	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	65267	05/18/12 21:31	LH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	64955	05/17/12 19:50	JS	TAL BU
Total/NA	Analysis	SM 5210B		1	64961	05/17/12 20:12	ML	TAL BUF
Total/NA	Analysis	SM 2540D		1	65184	05/19/12 11:00	EGN	TAL BUF
Total/NA	Prep	1664A			65300	05/21/12 09:55	LYW	TAL BUF
Total/NA	Analysis	1664A		1	65302	05/21/12 10:00	LYW	TAL BUF
Total/NA	Analysis	SM 2540C		1	65369	05/22/12 01:30	ВМ	TAL BUF
Total/NA	Prep	Distill/CN			65530	05/22/12 11:00	EGN	TAL BU
Total/NA	Analysis	335.4		1	65745	05/23/12 13:47	NH	TAL BUF
Total/NA	Prep	Distill/Phenol			65429	05/21/12 19:48	KS	TAL BUF
Total/NA	Analysis	420.4		1	65874	05/23/12 20:28	PJQ	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	Federal		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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### **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

Method	Method Description	Protocol	Laboratory
3260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
3270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
808	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
664A	HEM and SGT-HEM	1664A	TAL BUF
00.0	Anions, Ion Chromatography	MCAWW	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
20.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
M 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 5210B	BOD, 5-Day	SM	TAL BUF

#### Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-20198-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-20198-1	Pre-Carbon	Wastewater	05/17/12 10:30	05/17/12 11:10
480-20200-1	Post-Carbon	Wastewater	05/17/12 10:20	05/17/12 11:10

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Δ Yes Δ No

### TestAmerica Buffalo

10 Hazelwood Drive

### **Chain of Custody Record**

<b>TestAm</b>	eri	icc

Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991 THE LEADER IN ENVIRONMENTAL TESTING Sampler | K. 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 - | 10 Carrier Tracking No(s): COC No: Fischer, Brian Client Information 480-8771-1178.1 E-Mail: Client Contact: brian.fischer@testamericainc.com Thomas Palmer Page 1 of 1 Company: Job#: **Analysis Requested** Groundwater & Environmental Services Inc Due Date Requested: Preservation Codes: 158 Sonwil Drive A - HCL M - Hexane TAT Requested (days): B - NaOH N - None Cheektowaga C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S State, Zip: E - NaHSO4 Q - Na2SO3 NY, 14225 F - MeOH R - Na2S2SO3 Phone: G - Amchlor S - H2SO4 Purchase Order not requir 608\_Pest - Priority Pollutant Pesticides 2540C\_Calcd - Total Dissolved Sollds H - Ascorbic Acid T - TSP Dodecahydrate 8270C - (MOD) TCL SVOA - OLM04.2 8021B - (MOD) STARS List - VOA -Email: I - Ice U - Acetone 8260B - (MOD) TCL list OLM04.2 tpalmer@gesonline.com V - MCAA Total Number of containers K - EDTA W - ph 4-5 Project #: L-EDA Z - other (specify) 48002525 NYSDEC - Gastown WWTP/Gastown Site: SSOW#: Other: New York SM4500\_H+ - pH Matrix Sample (w-water, Type S=solid. Sample (C=comp, Sample Identification Sample Date Time G=grab) BT-Tissue, A-Al Special Instructions/Note: Preservation Code: 5 17-12 1020 Water Post-Carbon 6 Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Month Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B I Unknown Radiological Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements: Empty Kit Relinquished by: Date: Time: Company 635 Date/Time: 5/17 / /2 Date/Time: Relinquished by: Date/Time: Company Received by. Date/Time Custody Seals Intact: Custody Seal No .: Cooler Temperature(s) °C and Other Remarks:







## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-20198-1

Login Number: 20198 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-20198-1

Login Number: 20200 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

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Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-21624-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by: 7/16/2012 4:44:01 PM

Brian Fischer
Project Manager II

brian.fischer@testamericainc.com

····· Links ·····

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-21624-1

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Brian Fischer

Project Manager II

7/16/2012 4:44:01 PM

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TestAmerica Job ID: 480-21624-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	6
Chronicle	9
Certification Summary	10
Method Summary	
Sample Summary	12
Chain of Custody	13
Receipt Checklists	15

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9

# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 480-21624-1

# **Qualifiers**

# **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

# **Glossary**

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>*</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points

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### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-21624-1

Job ID: 480-21624-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-21624-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/21/2012 11:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 2.8° C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method(s) 300.0: In batch 71768 the following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-21625-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **GC VOA**

Method(s) 8021B: The following samples were diluted due to the abundance of target analytes: (480-21635-5 MS), (480-21635-5 MSD), A3-ORC-3 (480-21635-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **General Chemistry**

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-21624-1)

No other analytical or quality issues were noted.

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TestAmerica Job ID: 480-21624-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 06/21/12 10:50 Date Received: 06/21/12 11:15

Client: New York State D.E.C.

Lab Sample ID: 480-21624-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/30/12 15:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/30/12 15:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/30/12 15:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/30/12 15:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/30/12 15:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/30/12 15:06	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			06/30/12 15:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/30/12 15:06	1
2-Hexanone	ND		5.0	1.2	ug/L			06/30/12 15:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/30/12 15:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/30/12 15:06	1
Acetone	ND		10	3.0	ug/L			06/30/12 15:06	1
Benzene	ND		1.0	0.41	ug/L			06/30/12 15:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/30/12 15:06	1
Bromoform	ND		1.0	0.26	ug/L			06/30/12 15:06	1
Bromomethane	ND		1.0	0.69	ug/L			06/30/12 15:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/30/12 15:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/30/12 15:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/30/12 15:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/30/12 15:06	1
Chloroethane	ND		1.0	0.32	ug/L			06/30/12 15:06	1
Chloroform	ND		1.0	0.34	ug/L			06/30/12 15:06	1
Chloromethane	ND		1.0	0.35	ug/L			06/30/12 15:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/30/12 15:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/30/12 15:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/30/12 15:06	1
Styrene	ND		1.0	0.73	ug/L			06/30/12 15:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/30/12 15:06	1
Toluene	ND		1.0	0.51	ug/L			06/30/12 15:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/30/12 15:06	1
Trichloroethene	ND		1.0	0.46	ug/L			06/30/12 15:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/30/12 15:06	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/30/12 15:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/30/12 15:06	1

Toluene-d8 (Surr)	106	71 - 126	06/30/12 15:06
4-Bromofluorobenzene (Surr)	100	73 - 120	06/30/12 15:06

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Limits

%Recovery Qualifier

104

Method: 8021B -	Volatile Organic	Compounds	(GC)
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Surrogate

1,2-Dichloroethane-d4 (Surr)

Analyte	Result Qualit	fier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND ND	0.20	0.035	ug/L			06/25/12 13:47	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			06/25/12 13:47	1
Benzene	ND	0.20	0.023	ug/L			06/25/12 13:47	1
Ethylbenzene	ND	0.20	0.029	ug/L			06/25/12 13:47	1
Isopropylbenzene	ND	0.20	0.027	ug/L			06/25/12 13:47	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			06/25/12 13:47	1
m,p-Xylene	ND	0.40	0.054	ug/L			06/25/12 13:47	1
n-Butylbenzene	ND	0.20	0.031	ug/L			06/25/12 13:47	1
n-Propylbenzene	ND	0.20	0.13	ug/L			06/25/12 13:47	1

Prepared

Analyzed

06/30/12 15:06

Dil Fac

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-21624-1

TestAmerica Job ID: 480-21624-1

**Matrix: Wastewater** 

**Client Sample ID: Post-Carbon** 

Date Collected: 06/21/12 10:50

Date Received: 06/21/12 11:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			06/25/12 13:47	1
p-Cymene	ND		0.20	0.030	ug/L			06/25/12 13:47	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			06/25/12 13:47	1
Toluene	ND		0.20	0.036	ug/L			06/25/12 13:47	1
Xylenes, Total	ND		0.60	0.054	ug/L			06/25/12 13:47	1
Method: 200.7 Rev 4.4 - Metals Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mathada 000 7 Day 4.4 Matal	- (IOD)								
	• •	Qualifier -	RL 50.0	MDL 19.3		<u>D</u>	Prepared 06/25/12 09:30	Analyzed 06/26/12 12:43	Dil Fac
Analyte Iron	Result	Qualifier				<u>D</u>			Dil Fac
Analyte	Result 338	Qualifier		19.3		<u>D</u>			Dil Fac
Iron General Chemistry	Result 338		50.0	19.3	ug/L Unit		06/25/12 09:30	06/26/12 12:43	1
Analyte Iron General Chemistry Analyte	Result		50.0	19.3 MDL 0.0050	ug/L Unit		06/25/12 09:30  Prepared	06/26/12 12:43  Analyzed	1

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-21624-1

Lab Sample ID: 480-21625-1

**Matrix: Wastewater** 

07/02/12 11:32

Date Collected: 06/21/12 10:45 Date Received: 06/21/12 11:15

Alkalinity, Total

**Client Sample ID: Pre-Carbon** 

Method: 200.7 Rev 4.4 - Metal	s (ICP)								
Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		500	100	ug/L		06/25/12 09:30	06/26/12 12:45	1
Iron	3490		50.0	19.3	ug/L		06/25/12 09:30	06/26/12 12:45	1
Magnesium	65200		200	43.4	ug/L		06/25/12 09:30	06/26/12 12:45	1
Potassium	3520		500	100	ug/L		06/25/12 09:30	06/26/12 12:45	1
Sodium	52900		1000	324	ug/L		06/25/12 09:30	06/26/12 12:45	1
General Chemistry									
Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.0		0.50	0.28	mg/L			07/06/12 15:33	1
Sulfate	120		4.0	0.70	mg/L			07/10/12 20:52	2

100

40.0 mg/L

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 06/21/12 10:50 Date Received: 06/21/12 11:15 Lab Sample ID: 480-21624-1

Matrix: Wastewater

**Matrix: Wastewater** 

TAL BUF

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			70710	06/30/12 15:06	ND	TAL BUF
Total/NA	Analysis	8021B		1	69796	06/25/12 13:47	DB	TAL BUF
Total/NA	Prep	200.7			69715	06/25/12 09:30	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	70170	06/26/12 12:43	AH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	69607	06/21/12 23:41	KS	TAL BUF
Total/NA	Prep	Distill/CN			70502	06/28/12 18:30	ML	TAL BUF
Total/NA	Analysis	335.4		1	70637	06/29/12 15:21	BM	TAL BUF

Client Sample ID: Pre-Carbon Lab Sample ID: 480-21625-1

Date Collected: 06/21/12 10:45

Date Received: 06/21/12 11:15

Analysis

300.0

Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Lab Analyst Total/NA Prep 200.7 69715 06/25/12 09:30 SS TAL BUF Total/NA 200.7 Rev 4.4 70170 06/26/12 12:45 TAL BUF Analysis 1 ΑH Total/NA Analysis 310.2 10 70946 07/02/12 11:32 NH TAL BUF Total/NA 300.0 71267 07/06/12 15:33 KAC TAL BUF Analysis 1

2

71768

07/10/12 20:52

RMM

#### Laboratory References:

Total/NA

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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TestAmerica Job ID: 480-21624-1

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171

aboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
estAmerica Buffalo	Georgia	State Program	4	956
estAmerica Buffalo	Georgia	State Program	4	N/A
estAmerica Buffalo	Illinois	NELAC	5	200003
estAmerica Buffalo	Iowa	State Program	7	374
estAmerica Buffalo	Kansas	NELAC	7	E-10187
estAmerica Buffalo	Kentucky	State Program	4	90029
estAmerica Buffalo	Kentucky (UST)	State Program	4	30
estAmerica Buffalo	Louisiana	NELAC	6	02031
estAmerica Buffalo	Maine	State Program	1	NY00044
estAmerica Buffalo	Maryland	State Program	3	294
estAmerica Buffalo	Massachusetts	State Program	1	M-NY044
estAmerica Buffalo	Michigan	State Program	5	9937
estAmerica Buffalo	Minnesota	NELAC	5	036-999-337
estAmerica Buffalo	New Hampshire	NELAC	1	2337
estAmerica Buffalo	New Hampshire	NELAC	1	2973
estAmerica Buffalo	New Jersey	NELAC	2	NY455
estAmerica Buffalo	New York	NELAC	2	10026
estAmerica Buffalo	North Dakota	State Program	8	R-176
estAmerica Buffalo	Oklahoma	State Program	6	9421
estAmerica Buffalo	Oregon	NELAC	10	NY200003
estAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
estAmerica Buffalo	Tennessee	State Program	4	TN02970
estAmerica Buffalo	Texas	NELAC	6	T104704412-11-2
estAmerica Buffalo	USDA	Federal		P330-11-00386
estAmerica Buffalo	Virginia	NELAC	3	460185
estAmerica Buffalo	Washington	State Program	10	C784
estAmerica Buffalo	West Virginia DEP	State Program	3	252
estAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-21624-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-21624-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-21624-1	Post-Carbon	Wastewater	06/21/12 10:50	06/21/12 11:15
480-21625-1	Pre-Carbon	Wastewater	06/21/12 10:45	06/21/12 11:15

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# TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**

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***************************************	***************************************			***************************************	

THE LEADER IN ENVIRONMENTAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991				-1								-					1	
Client Information	Sampler: No. Re	isolo		Fis	PM: scher, I	Brian	_		_			Cam	er Track	ng No(s	<b>5)</b> :		COC No: 480-8760-1177	<u>'.1</u>
Client Contact: Thomas Palmer	Phone:			E-M bria		her@t	estam	nerica	inc.c	om							Page: Page 1 of 1	
Company:					T	Analysis						Requested					Job#:	
Groundwater & Environmental Services Inc Address:	Due Date Request	ed:					т .	П		iaiyo		1					Preservation Co	odes:
158 Sonwil Drive	·																A - HCL	M - Hexane
City: Cheektowaga	TAT Requested (da	ıys):															B - NaOH C - Zn Acetate D - Nitric Acid	N - None O - AsNaO2 P - Na2O4S
State, Zip: NY, 14225																	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3
Phone:	PO#: Purchase Order	not requir			or No)			- 8021									G - Amchlor H - Ascorbic Acid I - Ice	S - H2SO4 T - TSP Dodecahydrate U - Acetone
Emait: tpalmer@gesonline.com	WO #:				es oc	#	104.2	- VOA			Ì					5101	J - DI Water K - EDTA	V - MCAA W - ph 4-5
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-C	Project #: 48002525				ple (Yes		st OLN	S List	_							of containers	L - EDA Other:	Z - other (specify)
Site: New York	SSOW#:				Sam	:	17	STAR	e, Tota	<u>.</u>						tot	Other:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oll, BT=Tissue, A=A	(ir)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH						Total Numbe	Special I	nstructions/Note:
A STATE OF THE PARTY OF THE PAR	)><\	><	Preserva	ion Code	X	ΧÞ	Α	Α	В	1		1				-X		
Post-Carbon	6/21/12	1050	G	Water	Ν	N												
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Possible Hazard Identification  Non-Hazard Flammable Skin Imitant Pol	5 🖵 ,,,,,	nown 🗀	Radiologica					s <b>posa</b> m To			ay be		<b>ssea n</b> osal By		nes are	_	ed longer than hive For	1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)	SON B UNK	nown	Radiologica		_	Specia					uirem		Jan Dy	LOD		Arci		Wonais
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elinquished by:	Date/Time:			Company	-	Re	erved	by:						Da	te//time:			Company
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Custody Seals Intact: Custody Seal No.:			_	-		Co	oler Te	mpera	iture(s	) °C and	d Other	Remark	(S:		) 1	り#~	3	







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10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**

<u>TestAmerica</u>

Phone (716) 691-2600 Fax (716) 691-7991	C-males	,,																			THE LEADER IN	ENVIRONMENTAL TEST	ING
Client Information	Sampler:	Keis	<u> </u>	F	ab PM: ischer	r, Bria	an							Cami	er Tra	cking	No(s)	):			COC No: 480-8745-1176	3.1	_
Thomas Palmer	Phone:	_			-Mail: rìan.fis	scher	@tes	stam	erica	inc.	com										Page: Page 1 of 1		_
Company: Groundwater & Environmental Services Inc						Analysis Reques							ues	uested						Job#:			
Address: 158 Sonwil Drive	Due Date Requeste	ed:	_		1	11.0%					M		T								Preservation Co	odes:	
City: Cheektowaga	TAT Requested (da	ays):																			A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None	
State, Zip: NY, 14225																				-78	D - Nitric Acid E - NaHSO4	O - AsNaO2 P - Na2O4S Q - Na2SO3	
Phone: Email:	PO #: Purchase Order WO #:	not requir			(ON 30																F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydraf	
tpalmer@gesonline.com		_			30.8	200	hod														I - Ice J - DI Water	U - Acetone V - MCAA	·
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Ca					le (Ye		Local Method	g												tainer	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)	
Site: New York	SSOW#:				Samp	-	ان) اد	cat Mc	, Total											of con	Other:		- ]
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)		Eleid Elite				310.2 - Aikalinity, Total											Total Number of containers	Special In	structions/Note:	1
	-75-	$\sim$		tion Code		Z22X	i p	)	N			- 1				232				X		a dollons/Note.	A 1.
Pre-Carbon	6/21/12	1045	G	Water	N	N .	ر 3	2	3											15	-		
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				_	77	$\top$	$\top$	$^{+}$	+	+	$\dashv$	+	+	+	+	+	+	+	9				1
Possible Hazard Identification						Samp	le Di	ispo	osai (	Af	ee m	ay b	e ass	sess	ed if	sam	ples	are	reta	ined	longer than 1	month)	4
Non-Hazard Flammable Skin Irritant Pois Deliverable Requested: I, II, III, IV, Other (specify)	son B Unkr	nown	Radiologica	l .			Retu	um T	To Cl	lient			┙ Dis	sposa	al By	Lab					re For	Months	
							ai ins	struc	ctions	/QC	Req	uiren	nents	<b>S</b> :									1
Empty Kit Relinquished by: Relinquished by:	Date/Time:	Date:		Company	Time			-				_		М	ethod	of Sh	ipmer	nt					1
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Relinquished by:	Date/Time:4			Company	(	Re	ceive	by:	<					•		D:	Date/Time:					Company	1
Relinquished by:	Date/Time:			Company		Received by: Date/Time:						_		Company	1								
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Со	oler Te	empe	erature	e(s) °(	C and	Other	Rema	arks:									









# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-21624-1

Login Number: 21624 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

Creator: May, Joel M		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-21624-1

Login Number: 21625 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

	•	•
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-23048-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 8/2/2012 2:59:56 PM

Joe Giacomazza Project Administrator

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer

Project Manager II

brian.fischer@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Joseph V. Gisconoger

Joe Giacomazza Project Administrator 8/2/2012 2:59:56 PM

TestAmerica Job ID: 480-23048-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	
Client Sample Results	6
Chronicle	9
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	15

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 480-23048-1

# **Qualifiers**

# **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

# **Glossary**

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<b>\$</b>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points

### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

Job ID: 480-23048-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-23048-1

#### Receipt

The samples were received on 7/25/2012 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 3.8° C.

#### GC/MS VOA

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: INFLUENT PW7B (480-23169-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### Ion Chromatography

Method 300.0: In batch 74430 the following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-23048-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **GC VOA**

No analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **General Chemistry**

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-23050-1)

No other analytical or quality issues were noted.

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# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

Lab Sample ID: 480-23048-1

07/31/12 20:11

Matrix: Wastewater

Client Sample ID: Pre-Carbon Date Collected: 07/25/12 11:00

Date Received: 07/25/12 11:20

**Alkalinity, Total** 

Method: 200.7 Rev 4.4 - Metal:	s (ICP)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	151000	500	100	ug/L		07/26/12 09:00	07/26/12 16:55	1
Iron	3700	50.0	19.3	ug/L		07/26/12 09:00	07/26/12 16:55	1
Magnesium	50800	200	43.4	ug/L		07/26/12 09:00	07/26/12 16:55	1
Potassium	2690	500	100	ug/L		07/26/12 09:00	07/26/12 16:55	1
Sodium	35200	1000	324	ug/L		07/26/12 09:00	07/26/12 16:55	1
General Chemistry								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156	1.0	0.56	mg/L			07/31/12 18:10	2
Sulfate	79.1	2.0	0.35	mg/L			07/27/12 14:40	1

50.0

20.0 mg/L

380

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 07/25/12 11:10 Date Received: 07/25/12 11:20

Lab Sample ID: 480-23050-1

**Matrix: Wastewater** 

Method: 8260B	- Volatile Org	ganic Com	pounds (GC/MS)
---------------	----------------	-----------	----------------

Analyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	1.0	0.82	ug/L			07/30/12 20:15	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			07/30/12 20:15	1
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			07/30/12 20:15	1
1,1-Dichloroethane	ND	1.0	0.38	ug/L			07/30/12 20:15	1
1,1-Dichloroethene	ND	1.0	0.29	ug/L			07/30/12 20:15	1
1,2-Dichloroethane	ND	1.0	0.21	ug/L			07/30/12 20:15	1
1,2-Dichloroethene, Total	ND	2.0	0.70	ug/L			07/30/12 20:15	1
1,2-Dichloropropane	ND	1.0	0.72	ug/L			07/30/12 20:15	1
2-Hexanone	ND	5.0	1.2	ug/L			07/30/12 20:15	1
2-Butanone (MEK)	ND	10	1.3	ug/L			07/30/12 20:15	1
4-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	ug/L			07/30/12 20:15	1
Acetone	ND	10	3.0	ug/L			07/30/12 20:15	1
Benzene	ND	1.0	0.41	ug/L			07/30/12 20:15	1
Bromodichloromethane	ND	1.0	0.39	ug/L			07/30/12 20:15	1
Bromoform	ND	1.0	0.26	ug/L			07/30/12 20:15	1
Bromomethane	ND	1.0	0.69	ug/L			07/30/12 20:15	1
Carbon disulfide	ND	1.0	0.19	ug/L			07/30/12 20:15	1
Carbon tetrachloride	ND	1.0	0.27	ug/L			07/30/12 20:15	1
Chlorobenzene	ND	1.0	0.75	ug/L			07/30/12 20:15	1
Dibromochloromethane	ND	1.0	0.32	ug/L			07/30/12 20:15	1
Chloroethane	ND	1.0	0.32	ug/L			07/30/12 20:15	1
Chloroform	ND	1.0	0.34	ug/L			07/30/12 20:15	1
Chloromethane	ND	1.0	0.35	ug/L			07/30/12 20:15	1
cis-1,3-Dichloropropene	ND	1.0	0.36	ug/L			07/30/12 20:15	1
Ethylbenzene	ND	1.0	0.74	ug/L			07/30/12 20:15	1
Methylene Chloride	ND	1.0	0.44	ug/L			07/30/12 20:15	1
Styrene	ND	1.0	0.73	ug/L			07/30/12 20:15	1
Tetrachloroethene	ND	1.0	0.36	ug/L			07/30/12 20:15	1
Toluene	ND	1.0	0.51	ug/L			07/30/12 20:15	1
trans-1,3-Dichloropropene	ND	1.0	0.37	ug/L			07/30/12 20:15	1
Trichloroethene	ND	1.0	0.46	ug/L			07/30/12 20:15	1
Vinyl chloride	ND	1.0		ug/L			07/30/12 20:15	1
Vinyl acetate	ND	5.0	0.85	ug/L			07/30/12 20:15	1
Xylenes, Total	ND	2.0	0.66	ug/L			07/30/12 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		66 - 137		07/30/12 20:15	1
Toluene-d8 (Surr)	115		71 - 126		07/30/12 20:15	1
4-Bromofluorobenzene (Surr)	106		73 - 120		07/30/12 20:15	1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			07/31/12 12:18	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			07/31/12 12:18	1
Benzene	ND		0.20	0.023	ug/L			07/31/12 12:18	1
Ethylbenzene	ND		0.20	0.029	ug/L			07/31/12 12:18	1
Isopropylbenzene	ND		0.20	0.027	ug/L			07/31/12 12:18	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			07/31/12 12:18	1
m,p-Xylene	ND		0.40	0.054	ug/L			07/31/12 12:18	1
n-Butylbenzene	ND		0.20	0.031	ug/L			07/31/12 12:18	1
n-Propylbenzene	ND		0.20	0.13	ug/L			07/31/12 12:18	1

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

# **Client Sample ID: Post-Carbon**

Date Collected: 07/25/12 11:10 Date Received: 07/25/12 11:20 Lab Sample ID: 480-23050-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			07/31/12 12:18	1
p-Cymene	ND		0.20	0.030	ug/L			07/31/12 12:18	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			07/31/12 12:18	1
Toluene	ND		0.20	0.036	ug/L			07/31/12 12:18	1
Xylenes, Total	ND		0.60	0.054	ug/L			07/31/12 12:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	109		63 - 132					07/31/12 12:18	1
4-Bromofluorobenzene	107		64 - 128					07/31/12 12:18	1
- Method: 200.7 Rev 4.4 - Met	als (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	647		50.0	19.3	ug/L		07/26/12 09:00	07/26/12 15:51	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.70		0.020	0.010	mg/L		07/26/12 16:35	07/27/12 11:34	2
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
На	7.66	HE	0.100	0.100	SU			07/25/12 21:24	1

TestAmerica Buffalo 8/2/2012

# **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

Lab Sample ID: 480-23048-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon Date Collected: 07/25/12 11:00

Date Received: 07/25/12 11:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			73942	07/26/12 09:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	74131	07/26/12 16:55	LH	TAL BUF
Total/NA	Analysis	300.0		1	74044	07/27/12 14:40	KAC	TAL BUF
Total/NA	Analysis	300.0		2	74430	07/31/12 18:10	RMM	TAL BUF
Total/NA	Analysis	310.2		5	74659	07/31/12 20:11	NH	TAL BUF

Client Sample ID: Post-Carbon

Lab Sample ID: 480-23050-1

Date Collected: 07/25/12 11:10 Matrix: Wastewater

Date Collected: 07/25/12 11:10 Matrix: Wastewater

Date Received: 07/25/12 11:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			74450	07/30/12 20:15	RL	TAL BUF
Total/NA	Analysis	8021B		1	74501	07/31/12 12:18	DB	TAL BUF
Total/NA	Prep	200.7			73943	07/26/12 09:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	74115	07/26/12 15:51	LH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	73890	07/25/12 21:24	ML	TAL BUF
Total/NA	Prep	Distill/CN			74077	07/26/12 16:35	NH	TAL BUF
Total/NA	Analysis	335.4		2	74178	07/27/12 11:34	EGN	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

# **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>		
Arkansas DEQ	State Program	6	88-0686	07-06-13		
California	NELAC	9	1169CA	09-30-12		
Connecticut	State Program	1	PH-0568	09-30-12		
Florida	NELAC	4	E87672	06-30-13		
Georgia	State Program	4	N/A	03-31-13		
Georgia	State Program	4	956	03-31-12		
Ilinois	NELAC	5	200003	09-30-12		
owa	State Program	7	374	03-01-13		
Kansas	NELAC	7	E-10187	01-31-13		
Kentucky	State Program	4	90029	12-31-12		
Kentucky (UST)	State Program	4	30	04-01-13		
_ouisiana	NELAC	6	02031	06-30-13		
Maine	State Program	1	NY00044	12-04-12		
Maryland	State Program	3	294	03-31-13		
Massachusetts	State Program	1	M-NY044	06-30-13		
Michigan	State Program	5	9937	04-01-13		
Minnesota	NELAC	5	036-999-337	12-31-12		
New Hampshire	NELAC	1	2973	09-11-12		
New Hampshire	NELAC	1	2337	11-17-12		
New Jersey	NELAC	2	NY455	06-30-13		
New York	NELAC	2	10026	03-31-13		
North Dakota	State Program	8	R-176	03-31-13		
Oklahoma	State Program	6	9421	08-31-12		
Oregon	NELAC	10	NY200003	06-09-13		
Pennsylvania	NELAC	3	68-00281	07-31-13		
Tennessee	State Program	4	TN02970	04-01-13		
Texas Texas	NELAC	6	T104704412-11-2	07-31-12		
JSDA	Federal		P330-11-00386	11-22-14		
/irginia	NELAC	3	460185	09-14-12		
Vashington	State Program	10	C784	02-10-13		
Vest Virginia DEP	State Program	3	252	09-30-12		
Visconsin	State Program	5	998310390	08-31-12		

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pН	SM	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-23048-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-23048-1	Pre-Carbon	Wastewater	07/25/12 11:00	07/25/12 11:20
480-23050-1	Post-Carbon	Wastewater	07/25/12 11:10	07/25/12 11:20

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#### TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991

# **Chain of Custody Record**



Sampler M. Kolsch Camer Tracking No(s) COC No Fischer, Brian 480-8746-1176.1 Client Information Client Contact E-Mail Thomas Palmer brian fischer@testamericainc.com Page 1 of 1 Company Job# **Analysis Requested** Groundwater & Environmental Services Inc. Due Date Requested: Preservation Codes: 158 Sonwil Drive A - HCL M - Hexane TAT Requested (days): B - NaOH Cheektowaga C - Zn Acetale O - AsNaO2 D - Nitric Acid P - Na2O4S State, Zip E - NaHSO4 Q - Na2SO3 NY, 14225 F - MeOH R - Na2S2SO3 Phone PO# G - Amchlor S - H2SQ4 Purchase Order not requir H - Ascorbic Acid T - TSP Dodecahydrate WQ# U - Acetone 300.0\_28D - (MOD) Local Method J - DI Water V - MCAA tpalmer@gesonline com K - EDTA W - ph 4-5 L - EDA Z - other (specify) NYSDEC - Gastown WWTP/Gastown Event Desc Mthly Pre-Ca 48002525 Other: New York Matrix Sample (W=water, Type S=solid. (C=comp, Sample O=waste/oll. Time G=grab) ST=Tissue, A=Alr) Sample Identification Sample Date Special Instructions/Note: Preservation Code: Pre-Carbon Water 1150 Possible Hazard Identification Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological Return To Client Disposal By Lab Archive For Months Deliverable Requested I, II, III, IV, Other (specify) Special Instructions/QC Requirements Method of Shipment Empty Kit Relinquished by Relinquished by. Relinguished by Relinquished by Date/Time Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks △ Yes △ No

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# TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**

**TestAmerica** 

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Filotie (7 16) 691-2000 Fax (7 16) 691-7991	Sampler			Lab F	PM .			_				Carrie	er Traci	ana Na	2/51		_	COC No	
Client Information				Fisc	her, Br	г, Впап				Carrier Tracking No(s)						480-8761-1177.1			
Client Contact Thomas Palmer	Phone			E-Ma briar	ıı n.fische	er@tes	stame	ericair	nc.co	m								Page Page 1 of 1	
Company Groundwater & Environmental Services Inc									Ana	ılvsis	Rec	equested						Job#	
Address 158 Sonwil Drive	Due Date Requested	<b>1</b> :									T							Preservation Codes:	
City	TAT Requested (day	/s):		_														A - HCL M - Hexane B - NaOH N - None	
Cheektowaga State, Zip																		C - Zn Acetate	
NY, 14225	70.4						- 1	- 1		-				1				E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3	
Phone	PO# Purchase Order r	not requir			o l	23 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -		- 8021										G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodeca	ahydrate
Email tpalmer@gesonline com	WO#	/O#				22.03.53	2	ě l	- [								ø	I - Ice U - Acetone J - DI Water V - MCAA	
Project Name NYSDEC - Gastown WWTP/Gastown Event Desc Mthly Post-C	Project# 48002525					4444E	OLM04.2	. isi									containe	K - EDTA W - ph 4-5 L - EDA Z - other (specif	fy)
Site	SSOW#			_		444	   	ARSI	Total		1							Other:	
New York		Т		M-4-i		100000000000000000000000000000000000000	D) TCL	D) ST	₩.   ;	Ę.							er of	-	
			Campie	Matrix (w=water,	JOH!	- Iron	· (MOD)	8021B - (MOD) STARS List - VOA	Cyanide,	SM4500_H+ -							T W		
Comple Identification	Samula Data		(C=Comp,	S=solid, D=waste/oil,		200.7 -	8260B	021B	335.4 -	M450	1						Total	Si-11	
Sample Identification	Sample Date	Time	G=grab) BT-	rissue, A-Air) n Code:	E E			A E		Charles Course			, v. v. v. v. v. ii				X	Special Instructions/No	ote:
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Non-Hazard Flammable Skin Irritant Post	ion B Unkno	own 🖳	Radiological		Sr			To C		Regi	ireme		sal B	y Lab			Arch	hive For Months	
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Custody Seals Intact: Custody Seal No. Δ Yes Δ No						Coole	er Tem	peratu	re(s) °	C and	Other R	emark:	3	. 4	#	2	-		











# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-23048-1

Login Number: 23048 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

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Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-23048-1

Login Number: 23050 List Source: TestAmerica Buffalo

List Number: 1 Creator: May, Joel M

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Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-24226-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Qtrly Post-Carbon Qtrly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 9/6/2012 4:37:50 PM

Joe Giacomazza Project Administrator

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer

Project Manager II

brian.fischer@testamericainc.com

..... LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

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Joseph V. gireomonger

Joe Giacomazza Project Administrator 9/6/2012 4:37:50 PM

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TestAmerica Job ID: 480-24226-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	
Definitions	4
Case Narrative	5
Client Sample Results	7
Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receint Checklists	18

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

# **Qualifiers**

# **GC/MS VOA**

fier Description

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
Y	Surrogate is outside control limits

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Metals**

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier Description	
В	Compound was found in the blank and sample.	
HF	Field parameter with a holding time of 15 minutes	
b	Result Detected in the USB	

# **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\tilde{\pi}</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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### **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

Job ID: 480-24226-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-24226-1

#### Receipt

The samples were received on 8/22/2012 12:15 PM and 8/22/2012 12:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.1° C and 5.3° C.

#### GC/MS VOA

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-24226-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method 8270C: The following sample contained one acid and/or one base surrogate outside acceptance limits: Post-Carbon (480-24236-1). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

#### Ion Chcromatography

Method 300.0: The following sample were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-24226-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

## **GC VOA**

Method 8021B: The following sample was diluted to bring the concentration of target analyte within the calibration range: Pre-Carbon (480-24226-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

No analytical or quality issues were noted.

#### Metal

No analytical or quality issues were noted.

### **General Chemistry**

Method 310.2: The method blank for batch 78228 contained alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed Pre-Carbon (480-24226-1)

Method 335.4, 9012A, SM 4500 CN E: The method blank for batch 78679 contained cyanide above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.Post-Carbon (480-24236-1)

Method SM 5210B: The dilution water D.O. depletion for batch 77975 was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L. The associated sample results are reported.

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-24236-1)

No other analytical or quality issues were noted.

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# **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

# Job ID: 480-24226-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

# Organic Prep

No analytical or quality issues were noted.

TestAmerica Buffalo 9/6/2012

Page 6 of 19

Lab Sample ID: 480-24226-1

**Matrix: Wastewater** 

Date Collected: 08/22/12 12:20 Date Received: 08/22/12 12:25

**Client Sample ID: Pre-Carbon** 

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			08/25/12 02:32	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			08/25/12 02:32	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			08/25/12 02:32	40
1,1-Dichloroethane	ND		40	15	ug/L			08/25/12 02:32	40
1,1-Dichloroethene	ND		40	12	ug/L			08/25/12 02:32	40
1,2-Dichloroethane	ND		40	8.4	ug/L			08/25/12 02:32	40
1,2-Dichloroethene, Total	ND		80	28	ug/L			08/25/12 02:32	40
1,2-Dichloropropane	ND		40	29	ug/L			08/25/12 02:32	40
2-Hexanone	ND		200	50	ug/L			08/25/12 02:32	40
2-Butanone (MEK)	ND		400	53	ug/L			08/25/12 02:32	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			08/25/12 02:32	40
Acetone	250	J	400	120	ug/L			08/25/12 02:32	40
Benzene	350		40	16	ug/L			08/25/12 02:32	40
Bromodichloromethane	20	J	40	16	ug/L			08/25/12 02:32	40
Bromoform	ND		40	10	ug/L			08/25/12 02:32	40
Bromomethane	ND		40	28	ug/L			08/25/12 02:32	40
Carbon disulfide	ND		40	7.6	ug/L			08/25/12 02:32	40
Carbon tetrachloride	ND		40	11	ug/L			08/25/12 02:32	40
Chlorobenzene	1600		40	30	ug/L			08/25/12 02:32	40
Dibromochloromethane	ND		40	13	ug/L			08/25/12 02:32	40
Chloroethane	ND		40	13	ug/L			08/25/12 02:32	40
Chloroform	540		40	14	ug/L			08/25/12 02:32	40
Chloromethane	45		40	14	ug/L			08/25/12 02:32	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			08/25/12 02:32	40
Ethylbenzene	ND		40	30	ug/L			08/25/12 02:32	40
Methylene Chloride	ND		40	18	ug/L			08/25/12 02:32	40
Styrene	ND		40	29	ug/L			08/25/12 02:32	40
Tetrachloroethene	ND		40	14	ug/L			08/25/12 02:32	40
Toluene	ND		40	20	ug/L			08/25/12 02:32	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			08/25/12 02:32	40
Trichloroethene	ND		40	18	ug/L			08/25/12 02:32	40
Vinyl chloride	ND		40	36	ug/L			08/25/12 02:32	40
Vinyl acetate	ND		200	34	ug/L			08/25/12 02:32	40
Xylenes, Total	ND		80	26	ug/L			08/25/12 02:32	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75		66 - 137		08/25/12 02:32	40
Toluene-d8 (Surr)	85		71 - 126		08/25/12 02:32	40
4-Bromofluorobenzene (Surr)	99		73 - 120		08/25/12 02:32	40

Method: 8021B - Volatile Organic Compounds (GC)

wethod: 8021B - Volatile Organic Comp	ounas (	(GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			08/28/12 14:19	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			08/28/12 14:19	1
Ethylbenzene	ND		0.20	0.029	ug/L			08/28/12 14:19	1
Isopropylbenzene	ND		0.20	0.027	ug/L			08/28/12 14:19	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			08/28/12 14:19	1
m,p-Xylene	ND		0.40	0.054	ug/L			08/28/12 14:19	1
n-Butylbenzene	ND		0.20	0.031	ug/L			08/28/12 14:19	1
n-Propylbenzene	ND		0.20	0.13	ug/L			08/28/12 14:19	1
o-Xylene	ND		0.20	0.027	ug/L			08/28/12 14:19	1

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400

08/28/12 13:26

08/28/12 13:26

08/27/12 03:27

TestAmerica Job ID: 480-24226-1

**Client Sample ID: Pre-Carbon** 

Date Collected: 08/22/12 12:20 Date Received: 08/22/12 12:25

Chloride

**Alkalinity, Total** 

Sulfate

Lab Sample ID: 480-24226-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Cymene	ND		0.20	0.030	ug/L			08/28/12 14:19	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			08/28/12 14:19	1
Toluene	ND		0.20	0.036	ug/L			08/28/12 14:19	1
Xylenes, Total	ND		0.60	0.054	ug/L			08/28/12 14:19	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	125		63 - 132					08/28/12 14:19	1
4-Bromofluorobenzene	95		64 - 128					08/28/12 14:19	1
- Method: 8021B - Volatile Or	ganic Compounds (	GC) - DL							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	63		2.0	0.23	ug/L			08/28/12 15:06	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	123		63 - 132					08/28/12 15:06	10
4-Bromofluorobenzene	123		64 - 128					08/28/12 15:06	10
- Method: 200.7 Rev 4.4 - Met	tals (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	149000		500	100	ug/L		08/24/12 08:20	08/24/12 19:04	1
Iron	2510		50.0	19.3	ug/L		08/24/12 08:20	08/24/12 19:04	1
Magnesium	57100		200	43.4	ug/L		08/24/12 08:20	08/24/12 19:04	1
Potassium	2870		500	100	ug/L		08/24/12 08:20	08/24/12 19:04	1
Sodium	36500		1000	324	ug/L		08/24/12 08:20	08/24/12 19:04	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

2.5

10.0

4000

1.4 mg/L

1.7 mg/L

1600 mg/L

170

133

18900 B

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Client Sample ID: Post-Carbon

Date Collected: 08/22/12 12:00 Date Received: 08/22/12 12:15 Lab Sample ID: 480-24236-1

Matrix: Wastewater

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	1.0	0.82	ug/L			08/25/12 03:00	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			08/25/12 03:00	1
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			08/25/12 03:00	1
1,1-Dichloroethane	ND	1.0	0.38	ug/L			08/25/12 03:00	1
1,1-Dichloroethene	ND	1.0	0.29	ug/L			08/25/12 03:00	1
1,2-Dichloroethane	ND	1.0	0.21	ug/L			08/25/12 03:00	1
1,2-Dichloroethene, Total	ND	2.0	0.70	ug/L			08/25/12 03:00	1
1,2-Dichloropropane	ND	1.0	0.72	ug/L			08/25/12 03:00	1
2-Hexanone	ND	5.0	1.2	ug/L			08/25/12 03:00	1
2-Butanone (MEK)	ND	10	1.3	ug/L			08/25/12 03:00	1
4-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	ug/L			08/25/12 03:00	1
Acetone	ND	10	3.0	ug/L			08/25/12 03:00	1
Benzene	ND	1.0	0.41	ug/L			08/25/12 03:00	1
Bromodichloromethane	ND	1.0	0.39	ug/L			08/25/12 03:00	1
Bromoform	ND	1.0	0.26	ug/L			08/25/12 03:00	1
Bromomethane	ND	1.0	0.69	ug/L			08/25/12 03:00	1
Carbon disulfide	ND	1.0	0.19	ug/L			08/25/12 03:00	1
Carbon tetrachloride	ND	1.0	0.27	ug/L			08/25/12 03:00	1
Chlorobenzene	ND	1.0	0.75	ug/L			08/25/12 03:00	1
Dibromochloromethane	ND	1.0	0.32	ug/L			08/25/12 03:00	1
Chloroethane	ND	1.0	0.32	ug/L			08/25/12 03:00	1
Chloroform	0.55 J	1.0	0.34	ug/L			08/25/12 03:00	1
Chloromethane	ND	1.0	0.35	ug/L			08/25/12 03:00	1
cis-1,3-Dichloropropene	ND	1.0	0.36	ug/L			08/25/12 03:00	1
Ethylbenzene	ND	1.0	0.74	ug/L			08/25/12 03:00	1
Methylene Chloride	ND	1.0	0.44	ug/L			08/25/12 03:00	1
Styrene	ND	1.0	0.73	ug/L			08/25/12 03:00	1
Tetrachloroethene	ND	1.0	0.36	ug/L			08/25/12 03:00	1
Toluene	ND	1.0	0.51	ug/L			08/25/12 03:00	1
trans-1,3-Dichloropropene	ND	1.0	0.37	ug/L			08/25/12 03:00	1
Trichloroethene	ND	1.0	0.46	ug/L			08/25/12 03:00	1
Vinyl chloride	ND	1.0	0.90	ug/L			08/25/12 03:00	1
Vinyl acetate	ND	5.0	0.85	ug/L			08/25/12 03:00	1
Xylenes, Total	ND	2.0	0.66	ug/L			08/25/12 03:00	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 137	_		08/25/12 03:00	1
Toluene-d8 (Surr)	91		71 - 126			08/25/12 03:00	1
4-Bromofluorobenzene (Surr)	100		73 - 120			08/25/12 03:00	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

modifical 62.700 Commodulate Organic Compounds (Commo)									
	Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	2-Methylnaphthalene	ND ND	5.0	0.59	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Acenaphthene	ND	5.0	0.41	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Acenaphthylene	ND	5.0	0.38	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Anthracene	ND	5.0	0.28	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Benzo[a]anthracene	ND	5.0	0.36	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Benzo[a]pyrene	ND	5.0	0.47	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Benzo[b]fluoranthene	ND	5.0	0.34	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Benzo[g,h,i]perylene	ND	5.0	0.35	ug/L		08/23/12 13:42	08/30/12 23:12	1
	Benzo[k]fluoranthene	ND	5.0	0.72	ua/l		08/23/12 13:42	08/30/12 23:12	1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 08/22/12 12:00 Date Received: 08/22/12 12:15 Lab Sample ID: 480-24236-1

TestAmerica Job ID: 480-24226-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		08/23/12 13:42	08/30/12 23:12	1
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L		08/23/12 13:42	08/30/12 23:12	1
Carbazole	ND		5.0	0.30	ug/L		08/23/12 13:42	08/30/12 23:12	1
Chrysene	ND		5.0	0.33	ug/L		08/23/12 13:42	08/30/12 23:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		08/23/12 13:42	08/30/12 23:12	1
Dibenzofuran	ND		9.9	0.50	ug/L		08/23/12 13:42	08/30/12 23:12	1
Fluoranthene	ND		5.0	0.40	ug/L		08/23/12 13:42	08/30/12 23:12	1
Fluorene	ND		5.0	0.36	ug/L		08/23/12 13:42	08/30/12 23:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		08/23/12 13:42	08/30/12 23:12	1
Naphthalene	ND		5.0	0.75	ug/L		08/23/12 13:42	08/30/12 23:12	1
Pentachlorophenol	ND		9.9	2.2	ug/L		08/23/12 13:42	08/30/12 23:12	1
Phenanthrene	ND		5.0	0.44	ug/L		08/23/12 13:42	08/30/12 23:12	1
Phenol	ND		5.0	0.39	ug/L		08/23/12 13:42	08/30/12 23:12	1
Pyrene	0.50	J	5.0	0.34	ug/L		08/23/12 13:42	08/30/12 23:12	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	99	52 - 132	08/23/12 13:42	08/30/12 23:12	1
2-Fluorobiphenyl	75	48 - 120	08/23/12 13:42	08/30/12 23:12	1
2-Fluorophenol	45	20 - 120	08/23/12 13:42	08/30/12 23:12	1
Nitrobenzene-d5	78	46 - 120	08/23/12 13:42	08/30/12 23:12	1
p-Terphenyl-d14	59 X	67 - 150	08/23/12 13:42	08/30/12 23:12	1
Phenol-d5	33	16 - 120	08/23/12 13:42	08/30/12 23:12	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND ND	0.20	0.035	ug/L			08/28/12 15:53	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			08/28/12 15:53	1
Benzene	ND	0.20	0.023	ug/L			08/28/12 15:53	1
Ethylbenzene	ND	0.20	0.029	ug/L			08/28/12 15:53	1
Isopropylbenzene	ND	0.20	0.027	ug/L			08/28/12 15:53	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			08/28/12 15:53	1
m,p-Xylene	ND	0.40	0.054	ug/L			08/28/12 15:53	1
n-Butylbenzene	ND	0.20	0.031	ug/L			08/28/12 15:53	1
n-Propylbenzene	ND	0.20	0.13	ug/L			08/28/12 15:53	1
o-Xylene	ND	0.20	0.027	ug/L			08/28/12 15:53	1
p-Cymene	ND	0.20	0.030	ug/L			08/28/12 15:53	1
sec-Butylbenzene	ND	0.20	0.020	ug/L			08/28/12 15:53	1
Toluene	ND	0.20	0.036	ug/L			08/28/12 15:53	1
Xylenes, Total	ND	0.60	0.054	ug/L			08/28/12 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	120		63 - 132		08/28/12 15:53	1
4-Bromofluorobenzene	120		64 - 128		08/28/12 15:53	1

Method: 608 - Organochlorine Pesticides in Water									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0065	ug/L		08/23/12 13:54	08/25/12 00:50	1
alpha-BHC	ND		0.050	0.0065	ug/L		08/23/12 13:54	08/25/12 00:50	1
beta-BHC	ND		0.050	0.025	ug/L		08/23/12 13:54	08/25/12 00:50	1
delta-BHC	ND		0.050	0.0099	ug/L		08/23/12 13:54	08/25/12 00:50	1
gamma-BHC (Lindane)	ND		0.050	0.0059	ug/L		08/23/12 13:54	08/25/12 00:50	1
Chlordane (technical)	ND		0.50	0.029	ug/L		08/23/12 13:54	08/25/12 00:50	1

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Client: New York State D.E.C.

Date Received: 08/22/12 12:15

Heptachlor epoxide

Toxaphene

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-24236-1

08/25/12 00:50

08/25/12 00:50

08/23/12 13:54

08/23/12 13:54

TestAmerica Job ID: 480-24226-1

Client Sample ID: Post-Carbon

Date Collected: 08/22/12 12:00

Lab Sample ID: Post-Carbon

ND

ND

**Matrix: Wastewater** 

Method: 608 - Organochlorine I	Pesticides in Wa	ter (Continue	ed)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0091	ug/L		08/23/12 13:54	08/25/12 00:50	1
4,4'-DDE	ND		0.050	0.011	ug/L		08/23/12 13:54	08/25/12 00:50	1
4,4'-DDT	ND		0.050	0.011	ug/L		08/23/12 13:54	08/25/12 00:50	1
Dieldrin	ND		0.050	0.0097	ug/L		08/23/12 13:54	08/25/12 00:50	1
Endosulfan I	ND		0.050	0.011	ug/L		08/23/12 13:54	08/25/12 00:50	1
Endosulfan II	ND		0.050	0.012	ug/L		08/23/12 13:54	08/25/12 00:50	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		08/23/12 13:54	08/25/12 00:50	1
Endrin	ND		0.050	0.014	ug/L		08/23/12 13:54	08/25/12 00:50	1
Endrin aldehyde	ND		0.050	0.016	ug/L		08/23/12 13:54	08/25/12 00:50	1
Heptachlor	ND		0.050	0.0084	ug/L		08/23/12 13:54	08/25/12 00:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		15 - 125	08/23/12 13:54	08/25/12 00:50	1
Tetrachloro-m-xylene	72		36 - 121	08/23/12 13:54	08/25/12 00:50	1

0.050

0.50

0.0052 ug/L

0.12 ug/L

Method: 200.7 Rev 4.4 - Metals	(ICP)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND ND	10.0	5.6	ug/L		08/24/12 08:20	08/24/12 19:02	1
Iron	43.1 J	50.0	19.3	ug/L		08/24/12 08:20	08/24/12 19:02	1
Manganese	261	3.0	0.40	ug/L		08/24/12 08:20	08/24/12 19:02	1
Zinc	1.6 J	10.0	1.5	ug/L		08/24/12 08:20	08/24/12 19:02	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.8	1.3	mg/L		08/24/12 18:30	08/25/12 01:49	1
Cyanide, Total	0.081	В	0.010	0.0050	mg/L		08/28/12 11:15	08/29/12 16:10	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		08/23/12 19:41	08/28/12 01:23	1
Total Dissolved Solids	566		10.0	4.0	mg/L			08/23/12 21:46	1
Biochemical Oxygen Demand	2.0	b	2.0	2.0	mg/L			08/23/12 17:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			08/23/12 05:15	1
pH	7.73	HF	0.100	0.100	SU			08/22/12 21:02	1

# **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

Lab Sample ID: 480-24226-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon Date Collected: 08/22/12 12:20

Date Received: 08/22/12 12:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		40	78164	08/25/12 02:32	JMB	TAL BUF
Total/NA	Analysis	8021B		1	78403	08/28/12 14:19	DB	TAL BUF
Total/NA	Analysis	8021B	DL	10	78403	08/28/12 15:06	DB	TAL BUF
Total/NA	Prep	200.7			77935	08/24/12 08:20	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	78287	08/24/12 19:04	MM	TAL BUF
Total/NA	Analysis	310.2		400	78228	08/27/12 03:27	PJQ	TAL BUF
Total/NA	Analysis	300.0		5	78334	08/28/12 13:26	KAC	TAL BUF

Client Sample ID: Post-Carbon Lab Sample ID: 480-24236-1

Date Collected: 08/22/12 12:00 Matrix: Wastewater

Date Received: 08/22/12 12:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			78164	08/25/12 03:00	JMB	TAL BUF
Total/NA	Prep	3510C			77914	08/23/12 13:42	KB	TAL BUF
Total/NA	Analysis	8270C		1	78669	08/30/12 23:12	RMM	TAL BUF
Total/NA	Analysis	8021B		1	78403	08/28/12 15:53	DB	TAL BUF
Total/NA	Prep	3510C			77921	08/23/12 13:54	KB	TAL BUF
Total/NA	Analysis	608		1	78091	08/25/12 00:50	MN	TAL BUF
Total/NA	Prep	200.7			77935	08/24/12 08:20	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	78287	08/24/12 19:02	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	77783	08/22/12 21:02	KS	TAL BUF
Total/NA	Analysis	SM 2540C		1	77805	08/23/12 21:46	ВМ	TAL BUF
Total/NA	Analysis	SM 2540D		1	77809	08/23/12 05:15	BM	TAL BUF
Total/NA	Analysis	SM 5210B		1	77975	08/23/12 17:39	ML	TAL BUF
Total/NA	Prep	1664A			78170	08/24/12 18:30	LAW	TAL BUF
Total/NA	Analysis	1664A		1	78171	08/25/12 01:49	LAW	TAL BUF
Total/NA	Prep	Distill/Phenol			77967	08/23/12 19:41	KS	TAL BUF
Total/NA	Analysis	420.4		1	78384	08/28/12 01:23	PJQ	TAL BUF
Total/NA	Prep	Distill/CN			78480	08/28/12 11:15	KJ	TAL BUF
Total/NA	Analysis	335.4		1	78679	08/29/12 16:10	NH	TAL BUF

### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

# **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAC	9	1169CA	09-30-12
Connecticut	State Program	1	PH-0568	09-30-12
Florida	NELAC	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	03-31-12
Ilinois	NELAC	5	200003	09-30-12
owa	State Program	7	374	03-01-13
Kansas	NELAC	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
_ouisiana	NELAC	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-12
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAC	5	036-999-337	12-31-12
New Hampshire	NELAC	1	2973	09-11-12
New Hampshire	NELAC	1	2337	11-17-12
New Jersey	NELAC	2	NY455	06-30-13
New York	NELAC	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAC	10	NY200003	06-09-13
Pennsylvania	NELAC	3	68-00281	07-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas Texas	NELAC	6	T104704412-11-2	07-31-13
JSDA	Federal		P330-11-00386	11-22-14
/irginia	NELAC	3	460185	09-14-12
Vashington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-12
Visconsin	State Program	5	998310390	08-31-12

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

lethod	Method Description	Protocol	Laboratory
260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
08	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
664A	HEM and SGT-HEM	1664A	TAL BUF
0.00	Anions, Ion Chromatography	MCAWW	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
20.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
M 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 5210B	BOD, 5-Day	SM	TAL BUF

#### Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-24226-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-24226-1	Pre-Carbon	Wastewater	08/22/12 12:20	08/22/12 12:25
480-24236-1	Post-Carbon	Wastewater	08/22/12 12:00	08/22/12 12:15

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IY, 14225					-			- 1	ı	-1					1			E - NaHSO4	Q - Na2SO3
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iample Identification	Sample Date	Sample Time	Sample Type (C≖comp, G≖grab)	Matrix (VI-venter, 8-acpts, O-venter/oil 81-Tinano, An	u-)		300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	82808 - (MOD) TCL Net OLMO4.2	8021B - (MOD) STARS List - VOA -	310.2 - Alkalinity, Total							Special In	structions/Note:
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Non-Hazard Flammable Skin Irritant	Poison B 🔼 Unk	nown 🗀	Radiologica	e/		_	$\Box_{Re}$	tum	To C	lient		0,	)isposa	l By L	ab	C		chive For	Months
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Phone (716) 691-2600 Fax (716) 691-7991								_										THE LEADER IN E	NVIRONMENTAL TESTING
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Client Information						cher, Brian												480-8772-1178.	1
Rent Contact: Thomas Palmer	Phone:	Phone: E-Ma bria				ai: nn.fischer@testamericainc.com												Page: Page 1 of 1	
Company: Groundwater & Environmental Services Inc									Ans	alysis	. Ra	ппе	eteri	1				Job#:	
ddress:	Due Date Requested	:							T	1,731.	T	1	1					Preservation Cod	des:
95 Aero Drive Suite 3					_							ı						A - HCL	M - Hexane
ity: Cheektowaga	TAT Requested (day)	<b>s</b> ):																B - NaOH C - Zn Acetate	N - None O - AsNeO2
State, Zip: NY, 14225									-				ı					D - Nitne Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
hone:	PO#:				-				- [,	٠١.	.1							F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
mait:	Purchase Order n	ot requir			_			훒		- 8021 cides	2	1	喜					H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetone
maii: palmer@gesonline.com	WO#:							Racoverable	۲   <u>۱</u>	Š S	\}	Į	Š	₽				J - DI Weter	V-MCAA
roject Name: IYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly	Project#: Post-Ca 48002525					B	:	Rec	֓֞֞֜֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֡֓֡֓֡֡֡֡֡֡֡֡֡	1 1	I &	1	§	8 P				K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
Site:	SSOW#:				- 1		5	룡		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	) §	ê	#	ş	重			Other:	
New York						اق	흥	호	털   1	£   \$	, <u> </u>	1 2	ļ	Summer	e, To	Ŧ			
			Sample	Matrix		200.7 - (MOD) Local Method	MAA_Calc - Oll & Grease	20.4 - Phenolice, Total	808 - (MOD) TCL list OLMO4.2	021B - (MOD) STARS List - VOA - 602	270C - (MOD) TCL SVOA - OLMOA.2	210B - Blochemical Oxygan Demand	OC_Calcd - Total Dissolved Solids	0D - Total Suspended Solids	36.4 - Cyanide, Total	#4500_H+ - pH			
		Sample	Type (C=comp,	(W-water, S-solki, O-wastwol		F	\$	Ţ.		<u> </u>	٥	6	ပ္စ	Į	5	8			
ample Identification	Sample Date	Time	G=grab) e		Air)	8	1864	420.	978	802	8270	621(	264	25.4	336.	3 <u>R</u> 4		Special In	structions/Note:
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Post-Carbon	8/22	1200	6	Water	MW	미기	/	1	-   ,	//	1/	1	7	1	1	/			
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Possible Hazard Identification					s	mple	Dis	posai	(Af	ee ma	y be	9550	ssec	if sa	mpl	95 a	re retair	ned longer than	1 month)
Non-Hazard Flammable Skin Irritant	Poison B Vnkno	wn <u> </u>	Radiological			L.J <sub>R</sub>	etum	1 To C	lient		Z	Disp	osal	By Le	ab_	ا	And	hive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					S	pecial	Instn	uction	s/QC	Requ	ireme	ents:							
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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-24226-1

Login Number: 24226 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Creator. Robitaine, Zacri L		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-24226-1

Login Number: 24236 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

ordator residents, man m		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	True	OK

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# <u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-25427-1

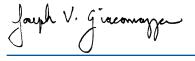
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 10/4/2012 3:48:54 PM

Joe Giacomazza Project Administrator

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer

Project Manager II

brian.fischer@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

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Joseph V. giveomorge

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Joe Giacomazza Project Administrator 10/4/2012 3:48:54 PM

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Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	6
Chronicle	9
Certification Summary	10
Method Summary	
Sample Summary	12
Chain of Custody	13
Receipt Checklists	15

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

# **Qualifiers**

# **Metals**

B Compound was found in the blank and sample.

# **General Chemistry**

HF Field parameter with a holding time of 15 minutes

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

**Quality Control** 

Reporting Limit

# **Glossary**

PQL

QC

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<b>☆</b>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)

TestAmerica Buffalo 10/4/2012

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Job ID: 480-25427-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-25427-1

#### Receipt

The samples were received on 9/20/2012 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.5° C and 2.5° C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method 300.0: The following samples in batch 82101 were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-25427-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC VOA

No analytical or quality issues were noted.

#### Metals

Method 200.7 Rev 4.4: The Method Blank for batch 480-81623 contained total calcium, iron and magnesium above the method detection limit. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of samples Pre-Carbon (480-25427-1) was not performed.

Method 200.7 Rev 4.4: The Method Blank for batch 480-81623 contained total iron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Post-Carbon (480-25428-1) was not performed.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-25428-1)

No other analytical or quality issues were noted.

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# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Lab Sample ID: 480-25427-1

**Matrix: Wastewater** 

**Client Sample ID: Pre-Carbon** Date Collected: 09/20/12 07:40 Date Received: 09/20/12 08:40

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
92100	В	500	100	ug/L		09/21/12 11:35	09/21/12 19:45	1
544	В	50.0	19.3	ug/L		09/21/12 11:35	09/21/12 19:45	1
42800	В	200	43.4	ug/L		09/21/12 11:35	09/21/12 19:45	1
3160		500	100	ug/L		09/21/12 11:35	09/21/12 19:45	1
43900		1000	324	ug/L		09/21/12 11:35	09/21/12 19:45	1
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
87.4		0.50	0.28	mg/L			09/22/12 06:07	1
139		4.0	0.70	mg/L			09/26/12 03:14	2
277		100	40.0	mg/L			10/03/12 02:32	10
	92100 544 42800 3160 43900 Result 87.4 139	43900  Result Qualifier  87.4  139	92100     B     500       544     B     50.0       42800     B     200       3160     500       43900     1000       Result     Qualifier     RL       87.4     0.50       139     4.0	92100         B         500         100           544         B         50.0         19.3           42800         B         200         43.4           3160         500         100           43900         1000         324           Result Qualifier         RL         MDL           87.4         0.50         0.28           139         4.0         0.70	92100 B         500         100 ug/L           544 B         50.0         19.3 ug/L           42800 B         200         43.4 ug/L           3160         500         100 ug/L           43900         1000         324 ug/L           Result Qualifier RL MDL Unit           87.4         0.50         0.28 mg/L           139         4.0         0.70 mg/L	92100 B         500         100 ug/L           544 B         50.0         19.3 ug/L           42800 B         200         43.4 ug/L           3160         500         100 ug/L           43900         1000         324 ug/L           Result Qualifier         RL         MDL Unit         D           87.4         0.50         0.28 mg/L           139         4.0         0.70 mg/L	92100         B         500         100         ug/L         09/21/12 11:35           544         B         50.0         19.3         ug/L         09/21/12 11:35           42800         B         200         43.4         ug/L         09/21/12 11:35           3160         500         100         ug/L         09/21/12 11:35           43900         1000         324         ug/L         09/21/12 11:35           Result         Qualifier         RL         MDL         Unit         D         Prepared           87.4         0.50         0.28         mg/L           139         4.0         0.70         mg/L	92100 B         500         100 ug/L         09/21/12 11:35         09/21/12 19:45           544 B         50.0         19.3 ug/L         09/21/12 11:35         09/21/12 19:45           42800 B         200         43.4 ug/L         09/21/12 11:35         09/21/12 19:45           3160         500         100 ug/L         09/21/12 11:35         09/21/12 19:45           43900         1000         324 ug/L         09/21/12 11:35         09/21/12 19:45           Result Qualifier         RL         MDL Unit         D         Prepared         Analyzed           87.4         0.50         0.28 mg/L         09/22/12 06:07           139         4.0         0.70 mg/L         09/26/12 03:14

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 09/20/12 07:30 Date Received: 09/20/12 08:40 Lab Sample ID: 480-25428-1

Matrix: Wastewater

ed	Dil Fac	5
2.02		

# Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte Result Qualifier

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/24/12 23:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/24/12 23:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/24/12 23:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/24/12 23:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/24/12 23:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/24/12 23:03	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			09/24/12 23:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/24/12 23:03	1
2-Hexanone	ND		5.0	1.2	ug/L			09/24/12 23:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/24/12 23:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/24/12 23:03	1
Acetone	ND		10	3.0	ug/L			09/24/12 23:03	1
Benzene	ND		1.0	0.41	ug/L			09/24/12 23:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/24/12 23:03	1
Bromoform	ND		1.0	0.26	ug/L			09/24/12 23:03	1
Bromomethane	ND		1.0	0.69	ug/L			09/24/12 23:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/24/12 23:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/24/12 23:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/24/12 23:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/24/12 23:03	1
Chloroethane	ND		1.0	0.32	ug/L			09/24/12 23:03	1
Chloroform	ND		1.0	0.34	ug/L			09/24/12 23:03	1
Chloromethane	ND		1.0	0.35	ug/L			09/24/12 23:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/24/12 23:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/24/12 23:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/24/12 23:03	1
Styrene	ND		1.0	0.73	ug/L			09/24/12 23:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/24/12 23:03	1
Toluene	ND		1.0	0.51	ug/L			09/24/12 23:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/24/12 23:03	1
Trichloroethene	ND		1.0	0.46	ug/L			09/24/12 23:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/24/12 23:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			09/24/12 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		66 - 137		09/24/12 23:03	1
Toluene-d8 (Surr)	109		71 - 126		09/24/12 23:03	1
4-Bromofluorobenzene (Surr)	101		73 - 120		09/24/12 23:03	1

2.0

0.66 ug/L

Method: 8021B - Volatile Organic Compounds (GC)

ND

Xylenes, Total

Welliou. 602 IB - Volalile Orgal	iic compounds (	GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			09/21/12 13:36	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			09/21/12 13:36	1
Benzene	ND		0.20	0.023	ug/L			09/21/12 13:36	1
Ethylbenzene	ND		0.20	0.029	ug/L			09/21/12 13:36	1
Isopropylbenzene	ND		0.20	0.027	ug/L			09/21/12 13:36	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			09/21/12 13:36	1
m,p-Xylene	ND		0.40	0.054	ug/L			09/21/12 13:36	1
n-Butylbenzene	ND		0.20	0.031	ug/L			09/21/12 13:36	1
n-Propylbenzene	ND		0.20	0.13	ug/L			09/21/12 13:36	1

09/24/12 23:03

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Lab Sample ID: 480-25428-1

**Matrix: Wastewater** 

Date Collected: 09/20/12 07:30 Date Received: 09/20/12 08:40

Method: 8021B - Volatile Organic C	ompounds (	(GC) (Continu	red)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			09/21/12 13:36	1
p-Cymene	ND		0.20	0.030	ug/L			09/21/12 13:36	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			09/21/12 13:36	1
Toluene	ND		0.20	0.036	ug/L			09/21/12 13:36	1
Xylenes, Total	ND		0.60	0.054	ug/L			09/21/12 13:36	1
– Method: 200.7 Rev 4.4 - Metals (ICP	')								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	103	В	50.0	19.3	ug/L		09/21/12 11:35	09/21/12 19:36	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24		0.010	0.0050	mg/L		09/21/12 10:35	09/21/12 16:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.93	HF	0.100	0.100	SU			09/20/12 23:35	1

# **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Lab Sample ID: 480-25427-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon

Date Collected: 09/20/12 07:40 Date Received: 09/20/12 08:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			81623	09/21/12 11:35	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	81829	09/21/12 19:45	MM	TAL BUF
Total/NA	Analysis	300.0		1	81705	09/22/12 06:07	KAC	TAL BUF
Total/NA	Analysis	300.0		2	82101	09/26/12 03:14	RMM	TAL BUF
Total/NA	Analysis	310.2		10	83639	10/03/12 02:32	PJQ	TAL BUF

Client Sample ID: Post-Carbon

Lab Sample ID: 480-25428-1

Date Collected: 09/20/12 07:30 Matrix: Wastewater

Date Received: 09/20/12 08:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			81986	09/24/12 23:03	RL	TAL BUF
Total/NA	Analysis	8021B		1	81657	09/21/12 13:36	DB	TAL BUF
Total/NA	Prep	200.7			81623	09/21/12 11:35	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	81829	09/21/12 19:36	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	81578	09/20/12 23:35	ML	TAL BUF
Total/NA	Prep	Distill/CN			81726	09/21/12 10:35	EGN	TAL BUF
Total/NA	Analysis	335.4		1	81745	09/21/12 16:20	EGN	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

# **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date	
Arkansas DEQ	State Program	6	88-0686	07-06-13	
California	NELAC	9	1169CA	09-30-12	
Connecticut	State Program	1	PH-0568	09-30-12	
Florida	NELAC	4	E87672	06-30-13	
Georgia	State Program	4	N/A	03-31-13	
Georgia	State Program	4	956	03-31-12	
Illinois	NELAC	5	200003	09-30-12	
lowa	State Program	7	374	03-01-13	
Kansas	NELAC	7	E-10187	01-31-13	
Kentucky	State Program	4	90029	12-31-12	
Kentucky (UST)	State Program	4	30	04-01-13	
Louisiana	NELAC	6	02031	06-30-13	
Maine	State Program	1	NY00044	12-04-12	
Maryland	State Program	3	294	03-31-13	
Massachusetts	State Program	1	M-NY044	06-30-13	
Michigan	State Program	5	9937	04-01-13	
Minnesota	NELAC	5	036-999-337	12-31-12	
New Hampshire	NELAC	1	2973	09-11-13	
New Hampshire	NELAC	1	2337	11-17-12	
New Jersey	NELAC	2	NY455	06-30-13	
New York	NELAC	2	10026	03-30-13	
North Dakota	State Program	8	R-176	03-31-13	
Oklahoma	State Program	6	9421	08-31-13	
Oregon	NELAC	10	NY200003	06-09-13	
Pennsylvania	NELAC	3	68-00281	07-31-13	
Tennessee	State Program	4	TN02970	04-01-13	
Гехаѕ	NELAC	6	T104704412-11-2	07-31-13	
JSDA	Federal		P330-11-00386	11-22-14	
√irginia	NELAC	3	460185	09-14-13	
Washington	State Program	10	C784	02-10-13	
West Virginia DEP	State Program	3	252	09-30-12	
Wisconsin	State Program	5	998310390	08-31-13	

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-25427-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-25427-1	Pre-Carbon	Wastewater	09/20/12 07:40	09/20/12 08:40
480-25428-1	Post-Carbon	Wastewater	09/20/12 07:30	09/20/12 08:40

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TestAmerica Buffalo 10 Hazelwood Drive

Amherst, NY 14228-2298

# **Chain of Custody Record**

Test	An	nerica

Phone (716) 691-2600 Fax (716) 691-7991	- A																***			
Client Information		M		Fis	b PM: scher,	Brian	ân					Carrier Tracking No(s):					COC No: 480-8747-1176.1			
Cilent Contact: Thomas Palmer	Phone: (494	() 325-0.	206		Meil: ian.fisc	cher@	er@testamericainc.com										Page: Page 1 of 1			
Company: Groundwater & Environmental Services Inc					Т				Ar	nalysis	s Rec	lues	ted				Job#:	_		
Address: 495 Aero Drive Suite 3	Due Date Request	ed:			瀬												Preservation C	odes:		
City:	TAT Requested (d	ays):			-11												A - HCL B - NaOH	M - H N - N		
Cheektowaga State, Zip:	10-0																C - Zn Acetate D - Nitric Acid	0 - A	NaO2 2045	
NY, 14225	•	<u> </u>															E - NeHSO4 F - MeOH	Q-N	2S03 2S2S03	
Phone:	PO#: Purchase Order	not requir		,		•			H						1		G - Amchior H - Ascorbic Acid	S-H	SO4 P Dodecahyd	Irata
Email:	WO #:					ĺ₽,	,										I - Ice J - DI Water		etone	
tpalmer@gesonline.com Project Name:	Project#:				-0		<b>[</b> ]									E	K - EDTA L - EDA	W-pi	n 4-5	
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car Site:					_[ii]		4										Other:	2-00	ner (specify)	
New York	SSOVWI.		•		1			y, Total								8	Other:			
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		Sample	Type (C=comp,	( <del>)//</del> , 0=solid,	200		200.7 - (MOD)									Ē				
Sample Identification	Sample Date	Time	G=grab)	BT=Tlesses, A=A	u-)			310.2								6	Special	instruct	ions/Note:	
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Possible Hazard Identification						Samp	le Dis	posa	(Af	ee may	be as	sess	ed If s	ample			longer than 1	month)		
Non-Hazard Flammable Skin Irritant Poison Deliverable Requested: I, II, III, IV, Other (specify)	B Unknow	m Rac	diological		$\dashv$		Return	To C	Client	Requir	<u> </u>	spose	d By L	ab de		rchive	For	Monti	is	
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TestAmerica Buffalo																		ToctA	merica
10 Hazelwood Drive			C	hain (	of C	ust	od	v R	lec	ord	ı							1621 <del>1</del>	<u>nerica</u>
Amherst, NY 14228-2298			_				-	, .			•							THE LEADER IN EN	VIRONMENTAL TESTING
Phone (716) 691-2800 Fax (716) 691-7991	Sampler.	<i>/</i>		- It ab	PM:	_				_	_	Camie	er Trac	kina Na	/s)·			COC No:	
Client Information	Phone: (484)	Palmer		Fis	scher, Brian							Carrier Tracking No(s):						480-8762-1177.1	
Client Contact: Thomas Palmer	Phone: (484)	325-02	04	E-M bria	ail: n.fischer@testamericainc.com													Page: Page 1 of 1	
Company:	_				T	- G	-						44					Job#:	
Groundwater & Environmental Services Inc Address:	Due Date Request	-4:			6.6%		_	_	An	alysi	s Req	ues	tea	_	_		2890	Preservation Cod	
495 Aero Drive Suite 3									- 1						-			A - HCL	M - Hexane
City: Cheektowaga	TAT Requested (d	ays):									11				1			B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip:	- 10 ·	du																D - Nitric Acid	P - Na2O4S
NY, 14225 Phone:	PO#:	<u> </u>			編装 -						1 1							E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3
PTIONE.	Purchase Order	not requir			0			2	- 1	1				- 1	1			G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email: tpalmer@gesonline.com	WO#:							- VOA - 8021	-					-				I-lice J-DiWater	U - Acetone V - MCAA
Project Name.	Project #:			_	-98		OLM64.2	١٠	- 1		1.1			- 1				K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
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		Sample	(C=comp,	B=salid, O=sasts/oil,	S. S.	200.7 - Iron	808	뮕	3	SM4600_H+							夏		4
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Non-Hazerd Flammable Skin Initiant Pois Deliverable Requested: I, II, III, IV, Other (specify)  Empty Kit Relinquished by:  Relinquished by:	Data/Time:	Date:		Company (Company	Sp	pecial Rec	Instr	To C	lient		$\Box_{b_i}$	spos	al By	Lab od of Sh	ipmen	t Zo//	alneo	d longer than 1 m	Months
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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-25427-1

Login Number: 25427 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Quarties	Anouron	Commont
Question  Radioactivity either was not measured or, if measured, is at or below	Answer True	Comment
background	HUC	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-25427-1

Login Number: 25428 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-27007-1

Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

#### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by: 10/31/2012 4:02:58 PM

Brian Fischer
Project Manager II

brian.fischer@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Brian Fischer Project Manager II

10/31/2012 4:02:58 PM

TestAmerica Job ID: 480-27007-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	
Definitions	4
Case Narrative	5
Client Sample Results	
Chronicle	
Certification Summary	10
Method Summary	
Sample Summary	12
Chain of Custody	13
Receint Checklists	15

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

# **Qualifiers**

# **GC VOA**

Quaimer	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Metals**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.

### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

# Glossary

ML

Abbreviation	These commonly used abbreviations may or may not be present in this report.							
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis							
%R	Percent Recovery							
CNF	Contains no Free Liquid							
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample							
EDL	Estimated Detection Limit							
EPA	United States Environmental Protection Agency							
MDL	Method Detection Limit							

ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control

RL Reporting Limit

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

Minimum Level (Dioxin)

TestAmerica Buffalo 10/31/2012

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

Job ID: 480-27007-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-27007-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/22/2012 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9° C and 3.2° C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method(s) 300.0: In batch 87972, the following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-27007-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **GC VOA**

No analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **General Chemistry**

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-27008-1)

No other analytical or quality issues were noted.

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# **Client Sample Results**

Client: New York State D.E.C.

Date Received: 10/22/12 15:00

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

Lab Sample ID: 480-27007-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon Date Collected: 10/22/12 14:10

Method: 200.7 Rev 4.4 - Metals (	ICP)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	97100 B	500	100	ug/L		10/24/12 09:00	10/24/12 21:17	1
Iron	770	50.0	19.3	ug/L		10/24/12 09:00	10/24/12 21:17	1
Magnesium	50400	200	43.4	ug/L		10/24/12 09:00	10/26/12 16:39	1
Potassium	5190	500	100	ug/L		10/24/12 09:00	10/24/12 21:17	1
Sodium	67600	1000	324	ug/L		10/24/12 09:00	10/24/12 21:17	1
- General Chemistry								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116	1.0	0.56	mg/L			10/29/12 18:43	2
Sulfate	138	4.0	0.70	mg/L			10/29/12 18:43	2
Alkalinity, Total	827	100	40.0	mg/L			10/26/12 04:25	10

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**Client Sample ID: Post-Carbon** 

Date Collected: 10/22/12 14:00 Date Received: 10/22/12 15:00 Lab Sample ID: 480-27008-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/23/12 23:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/23/12 23:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/23/12 23:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/23/12 23:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/23/12 23:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/23/12 23:50	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			10/23/12 23:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/23/12 23:50	1
2-Hexanone	ND		5.0	1.2	ug/L			10/23/12 23:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/23/12 23:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/23/12 23:50	1
Acetone	ND		10	3.0	ug/L			10/23/12 23:50	1
Benzene	ND		1.0	0.41	ug/L			10/23/12 23:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/23/12 23:50	1
Bromoform	ND		1.0	0.26	ug/L			10/23/12 23:50	1
Bromomethane	ND		1.0	0.69	ug/L			10/23/12 23:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/23/12 23:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/23/12 23:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/23/12 23:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/23/12 23:50	1
Chloroethane	ND		1.0	0.32	ug/L			10/23/12 23:50	1
Chloroform	ND		1.0	0.34	ug/L			10/23/12 23:50	1
Chloromethane	ND		1.0	0.35	ug/L			10/23/12 23:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/23/12 23:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/23/12 23:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/23/12 23:50	1
Styrene	ND		1.0	0.73	ug/L			10/23/12 23:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/23/12 23:50	1
Toluene	ND		1.0	0.51	ug/L			10/23/12 23:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/23/12 23:50	1
Trichloroethene	ND		1.0	0.46	ug/L			10/23/12 23:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/23/12 23:50	1
Vinyl acetate	ND		5.0	0.85	ug/L			10/23/12 23:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/23/12 23:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		66 - 137		10/23/12 23:50	1
Toluene-d8 (Surr)	86		71 - 126		10/23/12 23:50	1
4-Bromofluorobenzene (Surr)	84		73 - 120		10/23/12 23:50	1

Method: 8021B - Volatile Organic Compounds (GC)

ı	wethout ouz ib - volatile Organic Con	ipoulius	, (GC)							
İ	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			10/30/12 13:25	1
İ	1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			10/30/12 13:25	1
İ	Benzene	0.092	J	0.20	0.023	ug/L			10/30/12 13:25	1
	Ethylbenzene	ND		0.20	0.029	ug/L			10/30/12 13:25	1
İ	Isopropylbenzene	ND		0.20	0.027	ug/L			10/30/12 13:25	1
l	Methyl tert-butyl ether	ND		0.40	0.044	ug/L			10/30/12 13:25	1
l	m,p-Xylene	0.15	J	0.40	0.054	ug/L			10/30/12 13:25	1
İ	n-Butylbenzene	ND		0.20	0.031	ug/L			10/30/12 13:25	1
١	n-Propylbenzene	ND		0.20	0.13	ug/L			10/30/12 13:25	1

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

L - I- O - --- I - ID- 400 07000 4

TestAmerica Job ID: 480-27007-1

Lab Sample ID: 480-27008-1

Analyzed

10/23/12 22:17

**Matrix: Wastewater** 

Client Sample ID: Post-Carbon

Date Collected: 10/22/12 14:00 Date Received: 10/22/12 15:00

Analyte

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Method: 8021B - Volatile Organ	ic Compounds (	GC) (Continu	ned)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.027	ug/L			10/30/12 13:25	1
p-Cymene	ND		0.20	0.030	ug/L			10/30/12 13:25	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			10/30/12 13:25	1
Toluene	0.14	J	0.20	0.036	ug/L			10/30/12 13:25	1
Xylenes, Total	0.15	J	0.60	0.054	ug/L			10/30/12 13:25	1
- Method: 200.7 Rev 4.4 - Metals	(ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	106		50.0	19.3	ug/L		10/24/12 09:00	10/24/12 21:20	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.22		0.010	0.0050			10/25/12 12:42	10/26/12 15:29	

RL

0.100

RL Unit

0.100 SU

Prepared

Result Qualifier

8.13 HF

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Dil Fac

## **Lab Chronicle**

Client: New York State D.E.C.

Date Received: 10/22/12 15:00

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

Lab Sample ID: 480-27007-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon
Date Collected: 10/22/12 14:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			86968	10/24/12 09:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	87397	10/24/12 21:17	MM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	87821	10/26/12 16:39	MM	TAL BUF
Total/NA	Analysis	310.2		10	87577	10/26/12 04:25	PJQ	TAL BUF
Total/NA	Analysis	300.0		2	87972	10/29/12 18:43	KC	TAL BUF

Client Sample ID: Post-Carbon

Lab Sample ID: 480-27008-1

Date Collected: 10/22/12 14:00 Matrix: Wastewater

Date Received: 10/22/12 15:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			87103	10/23/12 23:50	JMB	TAL BUF
Total/NA	Analysis	8021B		1	88069	10/30/12 13:25	DB	TAL BUF
Total/NA	Prep	200.7			86968	10/24/12 09:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	87397	10/24/12 21:20	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	87125	10/23/12 22:17	ML	TAL BUF
Total/NA	Prep	Distill/CN			87488	10/25/12 12:42	LK	TAL BUF
Total/NA	Analysis	335.4		1	87728	10/26/12 15:29	NH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo 10/31/2012

TestAmerica Job ID: 480-27007-1

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date		
Arkansas DEQ	State Program	6	88-0686	07-06-13		
California	NELAC	9	1169CA	09-30-13		
Connecticut	State Program	1	PH-0568	09-30-14		
Florida	NELAC	4	E87672	06-30-13		
Georgia	State Program	4	N/A	03-31-13		
Georgia	State Program	4	956	06-30-13		
Georgia	State Program	4	956	06-30-13		
Illinois	NELAC	5	200003	09-30-13		
lowa	State Program	7	374	03-01-13		
Kansas	NELAC	7	E-10187	01-31-13		
Kentucky	State Program	4	90029	12-31-12		
Kentucky (UST)	State Program	4	30	04-01-13		
Louisiana	NELAC	6	02031	06-30-13		
Maine	State Program	1	NY00044	12-04-12		
Maryland	State Program	3	294	03-31-13		
Massachusetts	State Program	1	M-NY044	06-30-13		
Michigan	State Program	5	9937	04-01-13		
Minnesota	NELAC	5	036-999-337	12-31-12		
New Hampshire	NELAC	1	2973	09-11-13		
New Hampshire	NELAC	1	2337	11-17-12		
New Jersey	NELAC	2	NY455	06-30-13		
New York	NELAC	2	10026	03-31-13		
North Dakota	State Program	8	R-176	03-31-13		
Oklahoma	State Program	6	9421	08-31-13		
Oregon	NELAC	10	NY200003	06-09-13		
Pennsylvania	NELAC	3	68-00281	07-31-13		
Tennessee	State Program	4	TN02970	04-01-13		
Texas	NELAC	6	T104704412-11-2	07-31-13		
USDA	Federal		P330-11-00386	11-22-14		
Virginia	NELAC	3	460185	09-14-13		
Washington	State Program	10	C784	02-10-13		
West Virginia DEP	State Program	3	252	09-30-13		
Wisconsin	State Program	5	998310390	08-31-13		

## **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pН	SM	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-27007-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-27007-1	Pre-Carbon	Wastewater	10/22/12 14:10	10/22/12 15:00
480-27008-1	Post-Carbon	Wastewater	10/22/12 14:00	10/22/12 15:00

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## , TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991

# **Chain of Custody Record**

<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	15-6			PM: cher, Bi	rian				Carrier Tracking No(s):					COC No: 480-8748-1176.1					
Client Contact: Thomas Palmer	Phone:			E-M bria	lail: an.fisch	er@tes	tame	ricaino	.com										Page: Page 1 of 1	_
Company:					T					lysis	Pog.		tod.					_	Job #:	
Groundwater & Environmental Services Inc Address:	Due Date Request	ed:	<del> </del>				Т		HIIA	lysis	Req	ues	tea						Preservation Code	P\$:
495 Aero Drive Suite 3 City:	TAT Requested (da	ine).			4 [													2000	A - HCL	M - Hexane
Cheektowaga	in incluence (a	.,0,,			100													2000 A	C - Zn Acetate	N - None O - AsNaO2
State, Zip: NY, 14225									1										E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone:	PO#: Purchase Order	not requir							1								A A A A A A A A A A A A A A A A A A A		G - Amchlor	R - Na2S2SO3 S - H2SO4
Email:	WO#:	not requi			-[2]												a de mario		I - Ice	T - TSP Dodecahydrate U - Acetone
tpalmer@gesonline.com Project Name:	Project#:				_ e 3	etho			ŀ					H	l		A Revision		K - EDTA	V - MCAA W - ph 4-5
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car	48002525			·	_ <u>``</u>	2 5	ethor	_									62	in the		Z - other (specify)
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			Sample	Matrix	Para	300.0_28D - (MOD) Local Method	- (MOD) Local Method	310.2 - Alkalinity, Total										Total Number		
		Sample	Type (C=comp,	(W=water, S=solid,	E E	)_28E	₹	2 - A										쾳		•
Sample Identification	Sample Date	Time	G=grab)	O=waste/oil, ST=Tissue, A=Air	.) 🖺 🛔	300.	200.7	310.										Ē	Special Ins	tructions/Note:
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Non-Hazard Flammable Skin Irritant Poison	B Onknow	n Rad	liological					To Clie			□ bis		l By	Lab			Arci	ive	For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					S	oecial I	nstruc	ctions/	QC F	lequire	ements	i:								
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## TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991

# **Chain of Custody Record**

<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

Ott-11.5	Sampler:	2. i			PM:	D-i						Carr	ier Trac	king N	lo(s):			COC No:	
Client Information Client Contact:	Phone:	Leisur	,	FIS E-M	cher, l	влап	lan											480-8763-1177.1 Page:	
Thomas Palmer				bria	an.fisc	her@	er@testamericainc.com											Page 1 of 1	
Company: Groundwater & Environmental Services Inc							Analysis Req					eaues	sted					Job #:	
Address:	Oue Date Request	ed:			200									Т		Т		Preservation Cod	es;
495 Aero Drive Suite 3 City:	TAT Requested (da	ive).										-					717945	A - HCL	M - Hexane
Cheektowaga	IA   Kedusated (or	190).			100							ŀ	1 1		1			B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: NY, 14225																	2000	D - Nitric Acid E - NaH\$O4	P - Na2O4S Q - Na2SO3
Phone:	PO#:				- 1			_										F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
F70.	Purchase Order	not requir			_ ∮			- 8021					Ш					H - Ascorbic Acid I - Ice	T - TSP Dodecahydrate U - Acetone
Email: tpalmer@gesonline.com	WO#:				ğ	2	7	ě					Ш				ع	J - DI Water	V - MCAA
Project Name:	Project #:				٦Ĕ	es or No)	OLM04.2	1 7					Ш				2	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	48002525 SSOW#:				활	8	≝	35.	펺				Ш				Š	Other:	
New York					Sat	9	털	STA	Ţ,	=			Ш				5		
			Sample	Matrix	ě	ğ	5	8021B - (MOD) STARS List - VOA	335.4 · Cyanide, Total	SM4500_H+ - pH							2		
			Туре	(W=water, S=solid,	Ē	E O	- B	🐇	õ	8			Ш				2		
Sample Identification	Sample Date	Sample Time	(C≊comp, G≕grab)	O=waste/oil, BT=Tissue, A=Al			200.7 8260E	80218	336.4	SM46			Ш				90	Special Ins	structions/Note:
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Custody Seal No.: Δ Yes Δ No						C	coler Te	mperat	ture(s)	°C and	Other	Remark	s:		3	٦,	Δ,		











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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-27007-1

Login Number: 27007 List Source: TestAmerica Buffalo

List Number: 1 Creator: Stau, Brandon

Question	Answer	Comme
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ges
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-27007-1

Login Number: 27008 List Source: TestAmerica Buffalo

List Number: 1 Creator: Stau, Brandon

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ges
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-29152-1

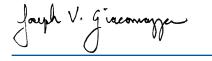
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Qtrly Post-Carbon Qtrly Pre-Carbon

### For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 12/10/2012 12:01:17 PM

Joe Giacomazza
Project Administrator

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer

Project Manager II

brian.fischer@testamericainc.com

····· Links ·····

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Joe Giacomazza **Project Administrator** 12/10/2012 12:01:17 PM

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	6
Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	17

4

5

7

10

## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

## **Qualifiers**

## **GC/MS VOA**

Qualifier	Qualifier	Description

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## **GC VOA**

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

These commonly used abbreviations may or may not be present in this report.

## GC Semi VOA

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation

₩	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

Job ID: 480-29152-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-29152-1

#### Receipt

The samples were received on 11/28/2012 10:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3° C and 2.3° C.

#### GC/MS VOA

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-29153-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

No analytical or quality issues were noted.

#### Ion Chromatography

No analytical or quality issues were noted.

#### GC VOA

Method 8021B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-29153-1). Elevated reporting limits (RLs) are provided.

Method 8021B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-29153-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

No analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **General Chemistry**

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-29152-1)

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Post-Carbon** 

Date Collected: 11/28/12 10:00 Date Received: 11/28/12 10:45

Lab Sample ID: 480-29152-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/05/12 13:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/05/12 13:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/05/12 13:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/05/12 13:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/05/12 13:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/05/12 13:59	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			12/05/12 13:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/05/12 13:59	1
2-Hexanone	ND		5.0	1.2	ug/L			12/05/12 13:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/05/12 13:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/05/12 13:59	1
Acetone	ND		10	3.0	ug/L			12/05/12 13:59	1
Benzene	ND		1.0	0.41	ug/L			12/05/12 13:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/05/12 13:59	1
Bromoform	ND		1.0	0.26	ug/L			12/05/12 13:59	1
Bromomethane	ND		1.0	0.69	ug/L			12/05/12 13:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/05/12 13:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/05/12 13:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/05/12 13:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/05/12 13:59	1
Chloroethane	ND		1.0	0.32	ug/L			12/05/12 13:59	1
Chloroform	0.60	J	1.0	0.34	ug/L			12/05/12 13:59	1
Chloromethane	ND		1.0	0.35	ug/L			12/05/12 13:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/05/12 13:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/05/12 13:59	1
Methylene Chloride	0.50	J	1.0	0.44	ug/L			12/05/12 13:59	1
Styrene	ND		1.0	0.73	ug/L			12/05/12 13:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/05/12 13:59	1
Toluene	ND		1.0	0.51	ug/L			12/05/12 13:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/05/12 13:59	1
Trichloroethene	ND		1.0	0.46	ug/L			12/05/12 13:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/05/12 13:59	1
Vinyl acetate	ND		5.0	0.85	ug/L			12/05/12 13:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/05/12 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		66 - 137		12/05/12 13:59	1
Toluene-d8 (Surr)	96		71 - 126		12/05/12 13:59	1
4-Bromofluorobenzene (Surr)	84		73 - 120		12/05/12 13:59	1

Method: 8270C - Semivolatile	e Organic Compounds (	(GC/MS)
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Wethou. 02700 - Semily Clath	e Organic Compou	ilus (Gorivio)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.9	0.59	ug/L		11/30/12 06:39	12/03/12 22:48	1
Acenaphthene	ND		4.9	0.40	ug/L		11/30/12 06:39	12/03/12 22:48	1
Acenaphthylene	ND		4.9	0.37	ug/L		11/30/12 06:39	12/03/12 22:48	1
Anthracene	ND		4.9	0.27	ug/L		11/30/12 06:39	12/03/12 22:48	1
Benzo[a]anthracene	ND		4.9	0.35	ug/L		11/30/12 06:39	12/03/12 22:48	1
Benzo[a]pyrene	ND		4.9	0.46	ug/L		11/30/12 06:39	12/03/12 22:48	1
Benzo[b]fluoranthene	ND		4.9	0.33	ug/L		11/30/12 06:39	12/03/12 22:48	1
Benzofa.h.ilpervlene	ND		4.9	0.34	ua/L		11/30/12 06:39	12/03/12 22:48	1

TestAmerica Buffalo

TestAmerica Job ID: 480-29152-1

**Client Sample ID: Post-Carbon** 

Date Collected: 11/28/12 10:00 Date Received: 11/28/12 10:45

Nitrobenzene-d5

p-Terphenyl-d14

a,a,a-Trifluorotoluene

4-Bromofluorobenzene

Phenol-d5

Lab Sample ID: 480-29152-1

11/30/12 06:39

11/30/12 06:39

11/30/12 06:39

12/03/12 22:48

12/03/12 22:48

12/03/12 22:48

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4.9	0.72	ug/L		11/30/12 06:39	12/03/12 22:48	1
Biphenyl	ND		4.9	0.64	ug/L		11/30/12 06:39	12/03/12 22:48	1
Bis(2-ethylhexyl) phthalate	ND		4.9	1.8	ug/L		11/30/12 06:39	12/03/12 22:48	1
Carbazole	ND		4.9	0.29	ug/L		11/30/12 06:39	12/03/12 22:48	1
Chrysene	ND		4.9	0.32	ug/L		11/30/12 06:39	12/03/12 22:48	1
Dibenz(a,h)anthracene	ND		4.9	0.41	ug/L		11/30/12 06:39	12/03/12 22:48	1
Dibenzofuran	ND		9.8	0.50	ug/L		11/30/12 06:39	12/03/12 22:48	1
Fluoranthene	ND		4.9	0.39	ug/L		11/30/12 06:39	12/03/12 22:48	1
Fluorene	ND		4.9	0.35	ug/L		11/30/12 06:39	12/03/12 22:48	1
Indeno[1,2,3-cd]pyrene	ND		4.9	0.46	ug/L		11/30/12 06:39	12/03/12 22:48	1
Naphthalene	ND		4.9	0.75	ug/L		11/30/12 06:39	12/03/12 22:48	1
Pentachlorophenol	ND		9.8	2.2	ug/L		11/30/12 06:39	12/03/12 22:48	1
Phenanthrene	ND		4.9	0.43	ug/L		11/30/12 06:39	12/03/12 22:48	1
Phenol	ND		4.9	0.38	ug/L		11/30/12 06:39	12/03/12 22:48	1
Pyrene	ND		4.9	0.33	ug/L		11/30/12 06:39	12/03/12 22:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		52 - 132				11/30/12 06:39	12/03/12 22:48	1
2-Fluorobiphenyl	84		48 - 120				11/30/12 06:39	12/03/12 22:48	1
2-Fluorophenol	41		20 - 120				11/30/12 06:39	12/03/12 22:48	1

46 - 120

67 - 150

16 - 120

85

92

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93

93

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			12/04/12 14:06	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			12/04/12 14:06	1
Benzene	0.083	J	0.20	0.023	ug/L			12/04/12 14:06	1
Ethylbenzene	ND		0.20	0.029	ug/L			12/04/12 14:06	1
Isopropylbenzene	ND		0.20	0.027	ug/L			12/04/12 14:06	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			12/04/12 14:06	1
m,p-Xylene	ND		0.40	0.054	ug/L			12/04/12 14:06	1
n-Butylbenzene	ND		0.20	0.031	ug/L			12/04/12 14:06	1
n-Propylbenzene	ND		0.20	0.13	ug/L			12/04/12 14:06	1
o-Xylene	ND		0.20	0.027	ug/L			12/04/12 14:06	1
p-Cymene	ND		0.20	0.030	ug/L			12/04/12 14:06	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			12/04/12 14:06	1
Toluene	ND		0.20	0.036	ug/L			12/04/12 14:06	1
Xylenes, Total	ND		0.60	0.054	ug/L			12/04/12 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Method: 608 - Organochlorine Pes	ticides in Water								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0066	ug/L		11/29/12 08:05	11/30/12 16:04	1
alpha-BHC	ND		0.050	0.0066	ug/L		11/29/12 08:05	11/30/12 16:04	1
beta-BHC	ND		0.050	0.025	ug/L		11/29/12 08:05	11/30/12 16:04	1

63 - 132

64 - 128

TestAmerica Buffalo

12/04/12 14:06

12/04/12 14:06

## **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-29152-1

TestAmerica Job ID: 480-29152-1

**Matrix: Wastewater** 

## **Client Sample ID: Post-Carbon**

Date Collected: 11/28/12 10:00 Date Received: 11/28/12 10:45

Biochemical Oxygen Demand

Total Suspended Solids

Analyte

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	0.017	JB	0.050	0.010	ug/L		11/29/12 08:05	11/30/12 16:04	1
gamma-BHC (Lindane)	ND		0.050	0.0060	ug/L		11/29/12 08:05	11/30/12 16:04	1
Chlordane (technical)	ND		0.50	0.029	ug/L		11/29/12 08:05	11/30/12 16:04	1
4,4'-DDD	ND		0.050	0.0092	ug/L		11/29/12 08:05	11/30/12 16:04	1
4,4'-DDE	ND		0.050	0.012	ug/L		11/29/12 08:05	11/30/12 16:04	1
4,4'-DDT	ND		0.050	0.011	ug/L		11/29/12 08:05	11/30/12 16:04	1
Dieldrin	ND		0.050	0.0098	ug/L		11/29/12 08:05	11/30/12 16:04	1
Endosulfan I	ND		0.050	0.011	ug/L		11/29/12 08:05	11/30/12 16:04	1
Endosulfan II	ND		0.050	0.012	ug/L		11/29/12 08:05	11/30/12 16:04	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		11/29/12 08:05	11/30/12 16:04	1
Endrin	ND		0.050	0.014	ug/L		11/29/12 08:05	11/30/12 16:04	1
Endrin aldehyde	ND		0.050	0.016	ug/L		11/29/12 08:05	11/30/12 16:04	1
Heptachlor	ND		0.050	0.0085	ug/L		11/29/12 08:05	11/30/12 16:04	1
Heptachlor epoxide	ND		0.050	0.0053	ug/L		11/29/12 08:05	11/30/12 16:04	1
Toxaphene	ND		0.50	0.12	ug/L		11/29/12 08:05	11/30/12 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		15 - 125				11/29/12 08:05	11/30/12 16:04	1
Tetrachloro-m-xylene	86		36 - 121				11/29/12 08:05	11/30/12 16:04	1
Method: 200.7 Rev 4.4 - Metals	(ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		11/30/12 08:15	12/03/12 17:47	1
Iron	274		50.0	19.3	ug/L		11/30/12 08:15	12/03/12 17:47	1
Manganese	91.9		3.0	0.40	ug/L		11/30/12 08:15	12/03/12 17:47	1
Zinc	ND		10.0	1.5	ug/L		11/30/12 08:15	12/03/12 17:47	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.9	1.4	mg/L		11/29/12 19:06	11/29/12 19:26	1
Cyanide, Total	0.17		0.010	0.0050	mg/L		12/01/12 10:30	12/04/12 01:14	1
Phenolics, Total Recoverable	0.0098	JB	0.010	0.0050	mg/L		11/29/12 02:05	12/04/12 04:12	1
Total Disselved Calida	523		10.0	4.0	mg/L			11/29/12 20:28	1
Total Dissolved Solids	523		10.0	7.0	mg/L			11/23/12 20.20	· ·

2.0

RL

4.0

0.100

2.0 mg/L

RL Unit

4.0 mg/L

0.100 SU

D

Prepared

ND

ND

7.87 HF

Result Qualifier

11/29/12 19:20

Analyzed

11/29/12 17:49

11/28/12 19:41

Dil Fac

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Pre-Carbon** 

Date Collected: 11/28/12 10:30 Date Received: 11/28/12 10:45 Lab Sample ID: 480-29153-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			12/05/12 14:27	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			12/05/12 14:27	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			12/05/12 14:27	40
1,1-Dichloroethane	ND		40	15	ug/L			12/05/12 14:27	40
1,1-Dichloroethene	ND		40	12	ug/L			12/05/12 14:27	40
1,2-Dichloroethane	ND		40	8.4	ug/L			12/05/12 14:27	40
1,2-Dichloroethene, Total	ND		80	28	ug/L			12/05/12 14:27	40
1,2-Dichloropropane	ND		40	29	ug/L			12/05/12 14:27	40
2-Hexanone	ND		200	50	ug/L			12/05/12 14:27	40
2-Butanone (MEK)	ND		400	53	ug/L			12/05/12 14:27	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			12/05/12 14:27	40
Acetone	ND		400	120	ug/L			12/05/12 14:27	40
Benzene	1800		40	16	ug/L			12/05/12 14:27	40
Bromodichloromethane	ND		40	16	ug/L			12/05/12 14:27	40
Bromoform	ND		40	10	ug/L			12/05/12 14:27	40
Bromomethane	ND		40	28	ug/L			12/05/12 14:27	40
Carbon disulfide	ND		40	7.6	ug/L			12/05/12 14:27	40
Carbon tetrachloride	ND		40	11	ug/L			12/05/12 14:27	40
Chlorobenzene	ND		40	30	ug/L			12/05/12 14:27	40
Dibromochloromethane	ND		40	13	ug/L			12/05/12 14:27	40
Chloroethane	ND		40	13	ug/L			12/05/12 14:27	40
Chloroform	21	J	40	14	ug/L			12/05/12 14:27	40
Chloromethane	ND		40	14	ug/L			12/05/12 14:27	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			12/05/12 14:27	40
Ethylbenzene	380		40	30	ug/L			12/05/12 14:27	40
Methylene Chloride	ND		40	18	ug/L			12/05/12 14:27	40
Styrene	ND		40	29	ug/L			12/05/12 14:27	40
Tetrachloroethene	ND		40	14	ug/L			12/05/12 14:27	40
Toluene	550		40	20	ug/L			12/05/12 14:27	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			12/05/12 14:27	40
Trichloroethene	ND		40	18	ug/L			12/05/12 14:27	40
Vinyl chloride	ND		40	36	ug/L			12/05/12 14:27	40
Vinyl acetate	ND		200	34	ug/L			12/05/12 14:27	40
Xylenes, Total	140		80	26	ug/L			12/05/12 14:27	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		66 - 137		12/05/12 14:27	40
Toluene-d8 (Surr)	97		71 - 126		12/05/12 14:27	40
4-Bromofluorobenzene (Surr)	87		73 - 120		12/05/12 14:27	40

Method: 8021B - Volatile Organ	ic Compounds (GC)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.3	0.20	0.035	ug/L			12/04/12 12:28	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			12/04/12 12:28	1
Isopropylbenzene	2.1	0.20	0.027	ug/L			12/04/12 12:28	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			12/04/12 12:28	1
m,p-Xylene	67	0.40	0.054	ug/L			12/04/12 12:28	1
n-Butylbenzene	ND	0.20	0.031	ug/L			12/04/12 12:28	1
n-Propylbenzene	0.74	0.20	0.13	ug/L			12/04/12 12:28	1
p-Cymene	ND	0.20	0.030	ug/L			12/04/12 12:28	1

TestAmerica Buffalo

# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

**Client Sample ID: Pre-Carbon** 

Date Collected: 11/28/12 10:30 Date Received: 11/28/12 10:45 Lab Sample ID: 480-29153-1

TestAmerica Job ID: 480-29152-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
sec-Butylbenzene	ND		0.20	0.020	ug/L			12/04/12 12:28	
Xylenes, Total	130		0.60	0.054	ug/L			12/04/12 12:28	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
a,a,a-Trifluorotoluene	90		63 - 132					12/04/12 12:28	
4-Bromofluorobenzene	90		64 - 128					12/04/12 12:28	
Method: 8021B - Volatile Or	ganic Compounds (	GC) - DL							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Ethylbenzene	280		2.0	0.29	ug/L			12/04/12 13:26	1
o-Xylene	53		2.0	0.27	ug/L			12/04/12 13:26	1
Toluene	420		2.0	0.36	ug/L			12/04/12 13:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
a,a,a-Trifluorotoluene	96		63 - 132					12/04/12 13:26	
4-Bromofluorobenzene	93		64 - 128					12/04/12 13:26	1
	•	•	DI	MDI	Unit	n	Propared	Analyzad	Dil E:
Method: 8021B - Volatile Or Analyte Benzene	•	GC) - DL2 Qualifier	RL		Unit ug/L	<u>D</u>	Prepared	Analyzed 12/05/12 09:51	Dil Fa
Analyte Benzene	Result 1200	Qualifier				<u>D</u>		12/05/12 09:51	
Analyte	Result	Qualifier	10			<u>D</u>	Prepared  Prepared		Dil Fa
Analyte Benzene Surrogate	Result 1200 %Recovery	Qualifier	10  Limits			<u>D</u>		12/05/12 09:51  Analyzed	5
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene	Result   1200     %Recovery   102   98	Qualifier	10  Limits  63 - 132			<u>D</u>		12/05/12 09:51  Analyzed  12/05/12 09:51	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene	Result   1200     %Recovery   102   98	Qualifier	10  Limits  63 - 132	1.2		<u>D</u>		12/05/12 09:51  Analyzed  12/05/12 09:51	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met	Result   1200     %Recovery   102   98	Qualifier  Qualifier	10  Limits  63 - 132 64 - 128	1.2	ug/L Unit		Prepared	12/05/12 09:51  Analyzed  12/05/12 09:51 12/05/12 09:51	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met Analyte	Result 1200  %Recovery 102 98 tals (ICP) Result	Qualifier  Qualifier	10  Limits  63 - 132 64 - 128	1.2	ug/L  Unit ug/L		Prepared Prepared	12/05/12 09:51  Analyzed  12/05/12 09:51 12/05/12 09:51  Analyzed	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met Analyte Calcium	Result   1200	Qualifier  Qualifier	10  Limits 63 - 132 64 - 128  RL 500	MDL 100 19.3	ug/L  Unit ug/L		Prepared  Prepared  11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51 12/05/12 09:51  Analyzed  12/03/12 17:49	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met Analyte Calcium	Result 1200  %Recovery  102 98  tals (ICP)  Result 81500 1230	Qualifier  Qualifier	10  Limits 63 - 132 64 - 128  RL 500 50.0	MDL 100 19.3	Unit ug/L ug/L ug/L		Prepared  Prepared  11/30/12 08:15  11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51  12/05/12 09:51  Analyzed  12/03/12 17:49  12/03/12 17:49	Dil Fa
Analyte Benzene Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium	Result 1200  %Recovery 102 98  tals (ICP) Result 81500 1230 45100	Qualifier  Qualifier	10  Limits  63 - 132 64 - 128  RL  500 50.0 200	MDL 100 19.3 43.4	Unit ug/L ug/L ug/L		Prepared  11/30/12 08:15 11/30/12 08:15 11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51  12/05/12 09:51  Analyzed  12/03/12 17:49  12/03/12 17:49  12/03/12 17:49	Dil Fa
Analyte Benzene  Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene  Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium	Result 1200  %Recovery 102 98  tals (ICP)  Result 81500 1230 45100 3190	Qualifier  Qualifier	10  Limits  63 - 132 64 - 128  RL  500 50.0 200 500	MDL 100 19.3 43.4	Unit ug/L ug/L ug/L ug/L		Prepared  11/30/12 08:15 11/30/12 08:15 11/30/12 08:15 11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51  12/05/12 09:51  Analyzed  12/03/12 17:49  12/03/12 17:49  12/03/12 17:49  12/03/12 17:49	Dil Fa
Analyte Benzene  Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene  Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium  General Chemistry	Result 1200  %Recovery 102 98  tals (ICP)  Result 81500 1230 45100 3190 45600	Qualifier  Qualifier	10  Limits  63 - 132 64 - 128  RL  500 50.0 200 500	MDL 100 19.3 43.4 100 324	Unit ug/L ug/L ug/L ug/L		Prepared  11/30/12 08:15 11/30/12 08:15 11/30/12 08:15 11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51  12/05/12 09:51  Analyzed  12/03/12 17:49  12/03/12 17:49  12/03/12 17:49  12/03/12 17:49	Dil Fa
Analyte Benzene  Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene  Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 1200  %Recovery 102 98  tals (ICP)  Result 81500 1230 45100 3190 45600	Qualifier  Qualifier  Qualifier	10  Limits  63 - 132 64 - 128  RL  500 50.0 200 500 1000	MDL 100 19.3 43.4 100 324	Unit ug/L ug/L ug/L ug/L ug/L ug/L	<u>D</u>	Prepared  Prepared  11/30/12 08:15  11/30/12 08:15  11/30/12 08:15  11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51 12/05/12 09:51  Analyzed  12/03/12 17:49 12/03/12 17:49 12/03/12 17:49 12/03/12 17:49 12/03/12 17:49	Dil Fa
Analyte Benzene  Surrogate a,a,a-Trifluorotoluene 4-Bromofluorobenzene  Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium  General Chemistry Analyte	Result 1200  %Recovery 102 98  tals (ICP)  Result 81500 1230 45100 3190 45600  Result	Qualifier  Qualifier  Qualifier	10  Limits  63 - 132 64 - 128  RL  500 50.0 200 500 1000  RL	MDL 100 19.3 43.4 100 324	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L	<u>D</u>	Prepared  Prepared  11/30/12 08:15  11/30/12 08:15  11/30/12 08:15  11/30/12 08:15	12/05/12 09:51  Analyzed  12/05/12 09:51 12/05/12 09:51  Analyzed  12/03/12 17:49 12/03/12 17:49 12/03/12 17:49 12/03/12 17:49 12/03/12 17:49 Analyzed	Dil Fa

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## **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

Lab Sample ID: 480-29152-1

Lab Sample ID: 480-29153-1

**Matrix: Wastewater** 

Matrix: Wastewater

Client Sample ID: Post-Carbon

Date Collected: 11/28/12 10:00 Date Received: 11/28/12 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			94142	12/05/12 13:59	CDC	TAL BUF
Total/NA	Prep	3510C			93486	11/30/12 06:39	TR	TAL BUF
Total/NA	Analysis	8270C		1	93884	12/03/12 22:48	RMM	TAL BUF
Total/NA	Analysis	8021B		1	93968	12/04/12 14:06	DB	TAL BUF
Total/NA	Prep	3510C			93286	11/29/12 08:05	ND	TAL BUF
Total/NA	Analysis	608		1	93523	11/30/12 16:04	MN	TAL BUF
Total/NA	Prep	200.7			93393	11/30/12 08:15	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	94078	12/03/12 17:47	AH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	93227	11/28/12 19:41	KS	TAL BUF
Total/NA	Analysis	SM 2540D		1	93429	11/29/12 17:49	KS	TAL BUF
Total/NA	Analysis	SM 2540C		1	93441	11/29/12 20:28	KS	TAL BUF
Total/NA	Prep	1664A			93440	11/29/12 19:06	LAW	TAL BUF
Total/NA	Analysis	1664A		1	93444	11/29/12 19:26	LAW	TAL BUF
Total/NA	Analysis	SM 5210B		1	93475	11/29/12 19:20	ML	TAL BUF
Total/NA	Prep	Distill/CN			93705	12/01/12 10:30	KJ	TAL BUF
Total/NA	Analysis	335.4		1	93940	12/04/12 01:14	BM	TAL BUF
Total/NA	Prep	Distill/Phenol			93261	11/29/12 02:05	LK	TAL BUF
Total/NA	Analysis	420.4		1	93952	12/04/12 04:12	PJQ	TAL BUF

**Client Sample ID: Pre-Carbon** 

Date Collected: 11/28/12 10:30

Date Received: 11/28/12 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		40	94142	12/05/12 14:27	CDC	TAL BUF
Total/NA	Analysis	8021B	DL	10	93968	12/04/12 13:26	DB	TAL BUF
Total/NA	Analysis	8021B		1	93968	12/04/12 12:28	DB	TAL BUF
Total/NA	Analysis	8021B	DL2	50	94135	12/05/12 09:51	DB	TAL BUF
Total/NA	Prep	200.7			93393	11/30/12 08:15	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	94078	12/03/12 17:49	AH	TAL BUF
Total/NA	Analysis	300.0		1	93360	11/30/12 00:48	KC	TAL BUF
Total/NA	Analysis	310.2		10	93914	12/03/12 16:23	NH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

## **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date	
Arkansas DEQ	State Program	6	88-0686	07-06-13	
California	NELAC	9	1169CA	09-30-13	
Connecticut	State Program	1	PH-0568	09-30-14	
Florida	NELAC	4	E87672	06-30-13	
Georgia	State Program	4	N/A	03-31-13	
Georgia	State Program	4	956	06-30-13	
Georgia	State Program	4	956	06-30-13	
Ilinois	NELAC	5	200003	09-30-13	
owa	State Program	7	374	03-01-13	
Kansas	NELAC	7	E-10187	01-31-13	
Kentucky	State Program	4	90029	12-31-12	
Kentucky (UST)	State Program	4	30	04-01-13	
_ouisiana	NELAC	6	02031	06-30-13	
Maine	State Program	1	NY00044	12-04-13	
Maryland	State Program	3	294	03-31-13	
Massachusetts	State Program	1	M-NY044	06-30-13	
Michigan	State Program	5	9937	04-01-13	
Minnesota	NELAC	5	036-999-337	12-31-12	
lew Hampshire	NELAC	1	2973	09-11-13	
New Hampshire	NELAC	1	2337	11-17-13	
lew Jersey	NELAC	2	NY455	06-30-13	
lew York	NELAC	2	10026	03-31-13	
North Dakota	State Program	8	R-176	03-31-13	
Oklahoma	State Program	6	9421	08-31-13	
Dregon	NELAC	10	NY200003	06-09-13	
Pennsylvania	NELAC	3	68-00281	07-31-13	
Rhode Island	State Program	1	LAO00328	12-31-13	
- ennessee	State Program	4	TN02970	04-01-13	
exas	NELAC	6	T104704412-11-2	07-31-13	
JSDA	Federal		P330-11-00386	11-22-14	
/irginia	NELAC	3	460185	09-14-13	
Vashington	State Program	10	C784	02-10-13	
Vest Virginia DEP	State Program	3	252	09-30-13	
Visconsin	State Program	5	998310390	08-31-13	

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## **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

/lethod	Method Description	Protocol	Laboratory
260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
664A	HEM and SGT-HEM	1664A	TAL BUF
00.0	Anions, Ion Chromatography	MCAWW	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
20.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 5210B	BOD, 5-Day	SM	TAL BUF

#### Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-29152-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-29152-1	Post-Carbon	Wastewater	11/28/12 10:00	11/28/12 10:45
480-29153-1	Pre-Carbon	Wastewater	11/28/12 10:30	11/28/12 10:45

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TestAmerica Buffalo 10'Hazelwood Drive			_					_			_							TestA	merica
Amherst, NY 14228-2298			(	Chain	of C	usto	) DC	y R	өс	Orc	1								
Phone (716) 691-2600 Fax (716) 691-7991																			IVIRONMENTAL TESTING
Client Information	Sampler:	Reisir			b PM: scher, B	rian						Ca	mer Tr	ecking	No(s)	:		COC No: 480-8773-1178.1	
Client Contact:	Phone:	CCISO	`	E-1	Mail:						_	1						Page:	
Thomas Palmer Company:	<u></u>		_	bri	ian.fisch	er@tes	tame	ericain	c.co	m	_							Page 1 of 1	
Groundwater & Environmental Services Inc									An	alysi	is R	eque	estec						
Address: 495 Aero Drive Suite 3	Due Date Reques	ted:			B.25		П		Т	Т	1	Т	Т	Т	Г		Cor.	Preservation Cod	es:
City:	TAT REQUESTED (	ays):	_		### 6G		$\dashv$	$\vdash$	-	-	+	+	+-	╄	╄	-	100	A - HCL B B - NaOH	M - Hexane
Cheektowaga									- 1					1			#1000 #1000 #1000	C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S
State, Zip: NY, 14225					50 11 11 11 11 11 11 11 11 11 11 11 11 11				- 1					1				E - NaHSO4	Q - Na2SO3
Phone:	PO#:								- 1	-				1				F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
Email:	Purchase Orde WO#:	not requir			-6		- 1	*	- 1	. 602	§   :	2   3	1					H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetone
tpalmer@gesonline.com									3	8		<u> </u>	8	룡				J - DI Water	V - MCAA
Project Name:	Project#:					8	,	Sec.	S260B - (MOD) TCL Bet OLMO4.2	1021B - (MOD) STARS List - VOA	108_Pest - Priority Pollutant Pest	1270C - (MOD) TCL SVOA - OLMO4.2	540C_Calcd - Total Dissolved Solids	1 Solids			100	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car Sita:	48002525 SSOW#:					1 1 1 1 1 1	Į	3	<u>ا و</u>	2		<u> </u>		Į	١.		G	Other:	
New York						흥	1	8	ᅙ	<u>ا څ</u>	È	į   į	13	1 5	Į	ا ـ ا	1201	1000	
			Sample	Matrix	Control .	200.7 - (MOD) Local Method	1664A_Calc - Oil & Graese	420.4 - Phenolice, Total Re	8	8	울 ] [	8   8	8 8	540D - Total Suspended	336.4 - Cyanide, Total	Ŧ	100 A	Series Control	
		l	Туре	(W-min,	1 2 2	<b>ĕ</b>	3	<del>Ĕ</del>	፤	<u>.</u>	<b>i</b>   i	<u>ا</u> ا	3	١:	&	ŧ,			
Sample Identification	Sample Date	Sample Time	(C≖comp,	Brocké, O-markété, ST-Thans, Ani		8 2	3	20.4	훓	2	g   3	2   3	3	🖁	2.8	3444600	50 900 900 900 900 900	Special in	structions/Note:
Sample Identification	THORE 25		These v						i									G STATE OF THE STA	
Post-Carbon	11/28/12	6001	G	Water	NN		20104138	9711934114 333	mitouza m	DATABLE BOX	MINER POR	province to the		NO DESCRIP	in contract	Income	WALKER PAR		SALES AND AND SECURITY OF THE
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Non-Hazard Flammable Skin Irritant Poison	B Onknor	wn Rad	diological			□ <sub>Re</sub>					=	Disp	osal B	y La	<b>,</b>	[	Archi	ve For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					s	pecial I	nstru	uctions	/QC	Requ	iirem	ents:							
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<b>TestAmerica Buffalo</b> 10 Hazelwoort Drive Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991				hain d		ust	od	y R	lec	ord						THE	LEADER IN E	MERIONMENTAL	
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Company: Groundwater & Environmental Services Inc									An	alysis	Requ	ested				Job#:			
Address: 495 Aero Drive Suite 3	Due Date Requests	ed:			P111111				П	Т	П	Т	П	Т			ervation Co		
City: Cheektowaga State, Zip: NY, 14225 Phone: Email: tpalmer@gesonline.com	PO#: Purchase Order WO #:				The state of the s	bod		4.2	VOA - 8021							D-N E-N F-M G-A H-A I-lo	NOH  Acetate Itric Acid NHSO4	M - Haxane N - None O - AsNarC2 P - Na2O4S Q - Na2SO3 R - Na2SSO3 S - H2SO4 T - TSP Dodec U - Acetone V - MCAA W - ph 4-5	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Ci Site: New York	Project #: art: 48002525 SSOW#:				ale province	D) Local Met	cal Method	CL. Ret OLIK	TARS List -	Total						L - Et	DA .	Z - other (speci	ify)
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (ve-sater, 8-solid, C-mathabit,	Andreas Services (1975)	100.0_25D - (MOD) Local Method	90.7 - (MOD) Local Method	260B - (MOD) TCL Ret OLMO4.2	021B - (MOD) STARS List - VOA	110.2 - Alkailnity, Total							Special in	nstructions/No	do:
Sample Identification	Sample Date			Marine Const															
Pre-Carbon	11/28	1030	G	Water	ИN				-	1	Ш	$\perp$	Ц	$\perp$	Ш				
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Possible Hazard Identification  Non-Hazard Flammable Skin Initant Pols Deliverable Requested: I, II, III, IV, Other (specify)	on B Onknow	m Rad	tiological		ľ	$\Box_{\mathbf{F}}$	Return	To C	lient		be asse Disp	essed i osal B	f samp / Lab	oles ar	re retain	ned long	er than 1 m	nonth) _ Months	
Empty Kit Relinquished by:		Date:			Time	:			_			Met	nod of S	hipmen	t				
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Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Coo	ler Ten	nperatu	ure(s)	°C and O	her Reme	rks:					23	#2	







## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-29152-1

Login Number: 29152 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	True	OK

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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-29152-1

Login Number: 29153 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Creator. Robitaine, Zacri L		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-30885-1

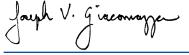
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Sampling Event: Mthly Post-Carbon Mthly Pre-Carbon

## For:

New York State D.E.C. 270 Michigan Avenue Buffalo, New York 14203

Attn: Mr. Glenn May



Authorized for release by: 1/14/2013 5:34:33 PM

Joe Giacomazza

Project Administrator

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer

Project Manager II

brian.fischer@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Joe Giacomazza

**Project Administrator** 

1/14/2013 5:34:33 PM

TestAmerica Job ID: 480-30885-1

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	
Client Sample Results	6
Chronicle	9
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	15

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

## **Qualifiers**

## **Metals**

Qualifier Qualif	ier Description

B Compound was found in the blank and sample.

## **General Chemistry**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
HF	Field parameter with a holding time of 15 minutes

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity

ML ND

MDC

MDL

D Not detected at the reporting limit (or MDL or EDL if shown)

Minimum detectable concentration

Method Detection Limit Minimum Level (Dioxin)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

Job ID: 480-30885-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-30885-1

#### Receipt

The samples were received on 12/28/2012 10:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.5° C and 3.1° C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### Ion Chromatography

Method 300.0: In batch 98171, the following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-30885-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC VOA

No analytical or quality issues were noted.

#### Metals

Method 200.7 Rev 4.4: The Method Blank for batch 480-97913 contained total potassium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Pre-Carbon (480-30885-1) was not performed.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method 310.2: The method blank for batch 98746 contained Alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. Pre-Carbon (480-30885-1)

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon (480-30886-1)

No other analytical or quality issues were noted.

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# **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

Lab Sample ID: 480-30885-1

Matrix: Wastewater

Client Sample ID: Pre-Carbon Date Collected: 12/28/12 10:20

Date Received: 12/28/12 10:47

Method: 200.7 Rev 4.4 - Metal	s (ICP)								
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	133000		500	100	ug/L		01/02/13 08:00	01/02/13 19:46	1
Iron	1620		50.0	19.3	ug/L		01/02/13 08:00	01/02/13 19:46	1
Magnesium	66200		200	43.4	ug/L		01/02/13 08:00	01/02/13 19:46	1
Potassium	4540 B	3	500	100	ug/L		01/02/13 08:00	01/02/13 19:46	1
Sodium	74300		1000	324	ug/L		01/02/13 08:00	01/02/13 19:46	1
- General Chemistry									
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109		1.0	0.56	mg/L			01/03/13 16:03	2
Sulfate	146		4.0	0.70	mg/L			01/03/13 16:03	2
Alkalinity, Total	522 B	3	100	40.0	mg/L			01/08/13 17:35	10

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Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Client Sample ID: Post-Carbon

Date Collected: 12/28/12 10:15 Date Received: 12/28/12 10:47 Lab Sample ID: 480-30886-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/03/13 13:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/03/13 13:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/03/13 13:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/03/13 13:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/03/13 13:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/03/13 13:26	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			01/03/13 13:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/03/13 13:26	1
2-Hexanone	ND		5.0	1.2	ug/L			01/03/13 13:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/03/13 13:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/03/13 13:26	1
Acetone	ND		10	3.0	ug/L			01/03/13 13:26	1
Benzene	ND		1.0	0.41	ug/L			01/03/13 13:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/03/13 13:26	1
Bromoform	ND		1.0	0.26	ug/L			01/03/13 13:26	1
Bromomethane	ND		1.0	0.69	ug/L			01/03/13 13:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/03/13 13:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/03/13 13:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/03/13 13:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/03/13 13:26	1
Chloroethane	ND		1.0	0.32	ug/L			01/03/13 13:26	1
Chloroform	2.2		1.0	0.34	ug/L			01/03/13 13:26	1
Chloromethane	ND		1.0	0.35	ug/L			01/03/13 13:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/03/13 13:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/03/13 13:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/03/13 13:26	1
Styrene	ND		1.0	0.73	ug/L			01/03/13 13:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/03/13 13:26	1
Toluene	ND		1.0	0.51	ug/L			01/03/13 13:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/03/13 13:26	1
Trichloroethene	ND		1.0	0.46	ug/L			01/03/13 13:26	1
Vinyl chloride	ND		1.0	0.90				01/03/13 13:26	1
Vinyl acetate	ND		5.0	0.85	ug/L			01/03/13 13:26	1
Xylenes, Total	ND		2.0		ug/L			01/03/13 13:26	1

Surrogate	%Recovery Q	Qualifier Limits	Prepared Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	66 - 137	01/03/13 13:26	1
Toluene-d8 (Surr)	95	71 - 126	01/03/13 13:26	1
4-Bromofluorobenzene (Surr)	91	73 - 120	01/03/13 13:26	1

11 (I 1 0004B		
Method: 8021B -	· Volatile Organic	Compounds (GC)

motification volutile orga	ino compounds (	<b>00</b> ,							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			01/02/13 16:20	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			01/02/13 16:20	1
Benzene	ND		0.20	0.023	ug/L			01/02/13 16:20	1
Ethylbenzene	ND		0.20	0.029	ug/L			01/02/13 16:20	1
Isopropylbenzene	ND		0.20	0.027	ug/L			01/02/13 16:20	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			01/02/13 16:20	1
m,p-Xylene	ND		0.40	0.054	ug/L			01/02/13 16:20	1
n-Butylbenzene	ND		0.20	0.031	ug/L			01/02/13 16:20	1
The state of the s									

TestAmerica Buffalo

1/14/2013

Page 7 of 16

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## **Client Sample Results**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Lab Sample ID: 480-30886-1

12/28/12 21:07

TestAmerica Job ID: 480-30885-1

**Matrix: Wastewater** 

Client Sample ID: Post-Carbon
-------------------------------

Date Collected: 12/28/12 10:15 Date Received: 12/28/12 10:47

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			01/02/13 16:20	1
o-Xylene	ND		0.20	0.027	ug/L			01/02/13 16:20	1
p-Cymene	ND		0.20	0.030	ug/L			01/02/13 16:20	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			01/02/13 16:20	1
Toluene	ND		0.20	0.036	ug/L			01/02/13 16:20	1
Xylenes, Total	ND		0.60	0.054	ug/L			01/02/13 16:20	1
-									
Method: 200.7 Rev 4.4 - Met	als (ICP)								
Method: 200.7 Rev 4.4 - Met Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	• •	Qualifier	<b>RL</b> 50.0		Unit ug/L	<u>D</u>	Prepared 01/02/13 08:00	Analyzed 01/02/13 18:30	Dil Fac
Analyte	Result	Qualifier				<u>D</u>	<u>·</u>		Dil Fac
Analyte Iron	Result 184	Qualifier			ug/L	D_	<u>·</u>		Dil Fac  Dil Fac
Iron General Chemistry	Result 184		50.0	19.3	ug/L Unit		01/02/13 08:00	01/02/13 18:30	1

0.100

7.26 HF

0.100 SU

1/14/2013

## **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

Lab Sample ID: 480-30885-1

**Matrix: Wastewater** 

**Client Sample ID: Pre-Carbon** 

Date Collected: 12/28/12 10:20 Date Received: 12/28/12 10:47

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			97913	01/02/13 08:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	98125	01/02/13 19:46	MM	TAL BUF
Total/NA	Analysis	300.0		2	98171	01/03/13 16:03	KC	TAL BUF
Total/NA	Analysis	310.2		10	98746	01/08/13 17:35	NH	TAL BUF

**Client Sample ID: Post-Carbon** 

Lab Sample ID: 480-30886-1 **Matrix: Wastewater** 

Date Collected: 12/28/12 10:15 Date Received: 12/28/12 10:47

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98139	01/03/13 13:26	CDC	TAL BUF
Total/NA	Analysis	8021B		1	98034	01/02/13 16:20	DB	TAL BUF
Total/NA	Prep	200.7			97911	01/02/13 08:00	JM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	98123	01/02/13 18:30	MM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	97761	12/28/12 21:07	KS	TAL BUF
Total/NA	Prep	Distill/CN			98009	01/02/13 09:45	EGN	TAL BUF
Total/NA	Analysis	335.4		1	98115	01/03/13 00:47	BM	TAL BUF

## Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Certification Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

## **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
lowa	State Program	7	374	03-01-13
Kansas	NELAP	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAP	6	T104704412-11-2	07-31-13
JSDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

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TestAmerica Buffalo

# **Method Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pН	SM	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-30885-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-30885-1	Pre-Carbon	Wastewater	12/28/12 10:20	12/28/12 10:47
480-30886-1	Post-Carbon	Wastewater	12/28/12 10:15	12/28/12 10:47

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FestAmerica Buffalo  10 Hazelwood Drive  Amherst, NY 14228-2298  Phone (716) 691-2800 Fax (716) 691-7991			С	Chain (		ust	tod	ly R	łec	ord:	i					i.	THE LEADER DA	Ame		
Client Information	Sampler:	Reisel			ab PM: ischer, Br	o <sub>rian</sub>						Carrier 1	r Tracking i	No(s):			OC No: 80-8749-1176	70 4		7
Nent Contact:	Phone:	CEIO	<del></del>	E-N	Mail:			i	_		<b></b>	1				Pag	age:	7.1		1
Thomas Palmer Company:				Driv	rian.fische	ег@н-	stame						—		—		Page 1 of 1			4
Groundwater & Environmental Services Inc	Paris Parisas/								Anz	aiysir	s Rec	queste	ed							1
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palmer@gesonline.com	WO#					<b>A</b> § '	$\mathcal{L}^{\prime}$				1		1 '	1	1	J-1	- Ice I - DI Water	U - Acetor V - MCAA	M.	4
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TestAmerica Buffalo id Hazelwood Drive			C	hain c	of Cı	ısto	dv	Re	cord						<b>lestA</b>	merico
Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991			_		. •		~ <b>,</b>		Joiu						THE LEADER IN EN	WRONNENTAL TEST
Phone (716) 691-2600 Fax (716) 691-7891	Sampler	Reisila		Lab	PM: her, Bris						arrier Tra	cking No	(8):	_	COC No: 480-8764-1177.1	
Dient Contact:	Phone:	i(elsew		E-M	vii:					$\neg$					Page:	
Thomas Palmer				bria	n.fischer	@testa	meric	ainc.o	om						Page 1 of 1	
Company: Groundwater & Environmental Services Inc					ı			A	nalysis	Reau	ested				Job#:	
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palmer@gesonline.com Project Name:	Project #:						٤   ١	1		11			1		K - EDTA	W-ph 4-5
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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-30885-1

Login Number: 30885 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

ordator residents, man m		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ges
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-30885-1

Login Number: 30886 List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
OC is present.	True	
OC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
amples are received within Holding Time.	True	
ample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
ppropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
OA sample vials do not have headspace or bubble is <6mm (1/4") in liameter.	True	
f necessary, staff have been informed of any short hold time or quick TAT needs	True	
fultiphasic samples are not present.	True	
samples do not require splitting or compositing.	True	
ampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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