

Quality Environmental Solutions & Technologies, Inc.

August 11, 2016

Purchase College State University of New York 735 Anderson Hill Road Purchase, NY 10577-1400

Attn: Ed Musal CSP, CPEA, RPIH

Re: Water Sampling and Analysis

Dear Mr. Musal:

Quality Environmental Solutions & Technologies, Inc. (QuES&T) was retained by Purchase College to collect water samples at the following campus buildings:

- Library
- Natural Science

QuES&T collected water samples from selected locations [as chosen by the client] within the buildings and submitted the collected samples to the laboratory for analysis of lead, copper and total Coliform in drinking water. The following discusses the results of the sample analysis and recommendations for consideration and review by Purchase College.

Introduction:

QuES&T was contacted by Purchase College due to concerns regarding the potential presence of lead, copper and Coliform bacteria in drinking water. As requested, QuES&T responded to the site on May 20, 2016 to collect water samples for analysis at fifteen (15) client selected locations, eight (8) in the Library and seven (7) in the Natural Science building. Water samples, both a first draw sample for lead and copper analysis and a secondary grab sample for total Coliform analysis, were collected from the following locations;

LIBRARY

- Upper Fountain North Ground Level (UNG)
- Lower Fountain North Ground Level (LNG)
- Upper Fountain South Ground Level (USG)
- Lower Fountain South Ground Level (LSG)
- Upper Fountain North 1st Floor (UN1)
- Lower Fountain North 1st Floor (LN1)
- Upper Fountain South 1st Floor (US1)
- Lower Fountain South 1st Floor (LS1)

NATURAL SCIENCE

- Basement
- Near Room 3042
- Near Room 3023
- Near Room 2037

- Near Room 2062
- Near Room 1061
- Near Room 1021

A first draw sample is a sample of tap water that has stood motionless in the plumbing pipes for at least six hours and is collected without flushing the tap prior to sample collection.

Sample Collection

Lead & Copper

Samples for lead & copper were collected using two hundred and fifty (250) milliliter plastic sample bottles with nitric acid added as a preservative. Using gloved hands, the water was turned on and a first draw sample was immediately collected. The sample bottles were sealed, labeled and placed into a cooler for shipping to the laboratory. Once all samples were collected, the chain of custody form was completed, placed into the cooler and the cooler sealed. The samples were forwarded to Life Science Laboratories (LSL) of East Syracuse, NY for analysis. The samples were analyzed for lead/copper in drinking water utilizing EPA Method 200.8.

Total Coliform

Samples for total Coliform bacteria were collected using sterile one hundred (100) milliliter plastic sample bottles with sodium thiosulfate as a preservative. Using gloved hands each of the water source surfaces was disinfected using an antibacterial wipe. Following the surface disinfection, the water was run for thirty seconds. The sample bottle was then placed into the water stream and a sample collected. The samples were sealed, labeled and prepared for transport to the laboratory. Once all samples were collected, the chain of custody form was completed, placed into the cooler and the cooler sealed. The samples were forwarded to Life Science Laboratories (LSL) of East Syracuse, NY for analysis. The samples were analyzed for total Coliform in drinking water utilizing the Readycult Method.

Data Discussion

QuES&T received the analytical results from the laboratory on June 6th, 2016. The analytical results are summarized in Table 1.0 below. (Sample analysis and reporting was initially scheduled to be completed on or about June 1st, 2016; however, the ICP/MS device used by the laboratory for this analysis stopped working and required repair delaying the receipt of analytical results.)

Analytical results for all samples collected were negative for the presence of Coliform bacteria.

Analytical results indicated that two (2) of the fifteen (15) samples collected had first draw lead levels in excess of both the EPA action level of 0.015 mg/L (ppm) and the Lead and Copper Rule level of 0.020 mg/L (ppm) for lead in drinking water.

Analytical results indicated that two (2) of the fifteen (15) samples collected had first draw copper levels in excess of the EPA action level of 1.3 mg/L (ppm) for copper in drinking water. The first draw samples with elevated lead and/or copper levels and the total Coliform grab samples are summarized in Table 1.0 Below.

Copies of all the analytical results are attached in the Appendix of this report.

Sample **First Draw First Draw** Total **Building** Sample # Coliform Location Lead mg/L Copper mg/L Library 001/003 UNG 0.034 0.28 Negative 002/004 LNG 0.28 0.44 Negative 005/007 USG 0.0087 2.6 Negative 6.3 006/008 LSG 0.0095 Negative 009/011 UN1 0.0096 0.35 Negative 010/012 LN1 0.013 0.63 Negative 013/015 US1 0.001 0.36 Negative 014/016 LS1 0.0019 1.1 Negative **Natural Science** 017/018 0.42 Negative Basement 0.003 019/020 0.3 3042 0.002 Negative 021/022 3023 0.0092 0.58 Negative 023/024 2037 0.0051 0.4 Negative 025/026 2062 0.0056 0.57 Negative 027/028 1061 < 0.0010 0.27 Negative Negative 029/030 1021 0.0054 0.37

Table 1.0 Lead, Copper and Total Coliform in Drinking Water

Conclusions

Based on the analytical results the following conclusion can be made:

- □ No Coliform bacteria was detected in any of the samples collected.
- □ The level of lead detected in two (2) of the fifteen (15) first draw samples exceeded both the EPA action level of 0.015 mg/L (ppm) and the Lead and Copper Rule level of 0.020 mg/L for lead in drinking water.
- ☐ The level of copper detected in two (2) of the fifteen (15) first draw samples exceeded the Copper in Drinking Water Standard Action Level of 1.3 mg/L (ppm).

Recommendations

Based on the foregoing conclusions, the following recommendations are provided to Purchase College for consideration and review.

- □ All sources with elevated lead/copper should be taken out of service until appropriate additional testing and remedial actions have been completed.
- A review of the locations with elevated lead and/or copper levels should be conducted to evaluate the need and/or functionality of those sources. Fixtures that are determined to be old, unused or unneeded should be removed from service.
- □ Additional samples [a flush sample] should be collected from sources that are to remain in service which had elevated lead/copper.

^{*}Values in RED exceed the action level of the Drinking Water Standards.

□ Prior to installing any water treatment systems, Purchase College should conduct water testing to properly characterize the drinking water. This should include an assessment of the corrosivity and hardness of the water to ensure that the proper treatment method can be chosen.

It was pleasure working with you and your staff and we look forward to being of further service to Purchase College for all of its safety and environmental consulting needs. Should you have any questions please feel free to contact me.

Sincerely,

Corrie J. Polikoff

Come & Voling

Safety & Environmental Services

Analytical Data



Kenneth C. Eck QuES&T 1376 Route 9 Wappingers Falls, NY 12590 Phone:

(845) 298-6031

FAX:

(845) 298-6251

Laboratory Analysis Report Prepared For QuES&T

Client Project ID:

Q16-0602 SUNY Purchase

LSL Project ID: 1607552

Receive Date/Time: 05/20/16 13:35

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody and the Sample Receipt documents submitted with these samples are considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

LSL Central Lab 5854 Butternut Drive East Syracuse, NY 13057 Tel. (315) 445-1900 Fax (315) 445-1104 NYS DOH ELAP #10248 PA DEP #68-2556 LSL North Lab 131 St. Lawrence Avenue Waddington, NY 13694 Tel. (315) 388-4476 Fax (315) 388-4061 NYS DOH ELAP #10900 LSL Finger Lakes Lab 16 N. Main St., PO Box 424 Wayland, NY 14572 Tel. (585) 728-3320 Fax (585) 728-2711 NYS DOH ELAP #11667 LSL Southern Tier Office Cuba, NY Tel. (585) 209-4032

LSL MidLakes Office Canandaigua, NY Tel. (585) 728-3320

Reviewed by:

ant Till

Date

4/2/16

David J. Prichard, Director of Tech. Services

QuES&T Wappingers Falls, NY

Sample ID:

Lead & Copper Study

LSL Sample ID:

1607552-001

Location:

Sampled:

05/20/16 7:22

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials

(1) Lead and Copper Study

Number of Samples

15

MT



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-001 UNG

CLIENT: Life Science Labs-LIMS

Project: 16

1607552-QuES&T

Location:

Q16-0602 SUNY Purchase

Matrix:

PWS

Lab ID:

K1606016-001A

Collection Date: Date Received:

05/20/16 7:22

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.28	mg/L	06/06/16 16:10
Lead	0.034 *	mg/L	06/06/16 16:10

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-002 LNG

CLIENT: Life Science Labs-LIMS

1607552-QuES&T

Project: Location: Q16-0602 SUNY Purchase

PWS Matrix:

Lab ID:

K1606016-002A

Collection Date: Date Received:

05/20/16 7:22

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.44	mg/L	06/06/16 16:14
Lead	0.28 *	mg/L	06/06/16 16:57

Qualifiers:

- * Value may exceed the Acceptable Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Page 2 of 15



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-005 USG

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix: PWS

Lab ID:

K1606016-003A

Collection Date: Date Received:

05/20/16 7:28

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	2.6 *	mg/L	06/06/16 16:21
Lead	0.0087	mg/L	06/06/16 16:17

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-006 LSG

CLIENT: Life Science Labs-LIMS

Project: Location: 1607552-QuES&T

Q16-0602 SUNY Purchase

Matrix:

Lab ID:

K1606016-004A

Collection Date: Date Received:

05/20/16 7:28 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	6.3 *	mg/L	06/06/16 16:25
Lead	0.0095	mg/L	06/06/16 14:51

Qualifiers:

- Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - Spike Recovery outside accepted recovery limits

Page 4 of 15 **Print Date:** 06/07/16 8:35



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-009 UNI

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix: PW

K1606016-005A

Collection Date: Date Received:

Lab ID:

05/20/16 7:41 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.35	mg/L	06/06/16 14:54
Lead	0.0096	mg/L	06/06/16 14:54

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-010 LN1

CLIENT: Life Science Labs-LIMS

Project:

1607552-QuES&T

Location:

Q16-0602 SUNY Purchase

Matrix: P

PWS

Lab ID:

K1606016-006A

Collection Date: Date Received:

05/20/16 7:41

05/20/16 7:41 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.63	mg/L	06/06/16 14:58
Lead	0.013	mg/L	06/06/16 14:58

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Page 6 of 15



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-013 US1

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix: PW

K1606016-007A

Collection Date: Date Received:

Lab ID:

05/20/16 7:51

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.36	mg/L	06/06/16 15:02
Lead	0.0010	mg/L	06/06/16 15:02

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-014 LS1

CLIENT: Life Science Labs-LIMS

Project: Location: 1607552-QuES&T Q16-0602 SUNY Purchase

Matrix:

PWS

Lab ID:

K1606016-008A

Collection Date: Date Received:

05/20/16 7:51

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	1.1	mg/L	06/06/16 16:29
Lead	0.0019	mg/L	06/06/16 15:14

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-017 Basement

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix:

PWS

Lab ID:

K1606016-009A

Collection Date: Date Received:

K1000010-0032

05/20/16 8:12 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.42	mg/L	06/06/16 15:18
Lead	0.0030	mg/L	06/06/16 15:18

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-019 3042

CLIENT: Life Science Labs-LIMS

Project:

1607552-QuES&T

Location:

Q16-0602 SUNY Purchase

Matrix:

K1606016-010A

Lab ID: **Collection Date:**

Date Received:

05/20/16 8:22 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.30	mg/L	06/06/16 15:22
Lead	0.0020	mg/L	06/06/16 15:22

Qualifiers:

- Value may exceed the Acceptable Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - Spike Recovery outside accepted recovery limits

Page 10 of 15



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix: PWS

Client Sample ID: 0602-021 3023

Lab ID:

K1606016-011A

Collection Date:

05/20/16 8:29

Date Received: 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.58	mg/L	06/06/16 15:25
Lead	0.0092	mg/L	06/06/16 15:25

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 06/07/16 8:35

Page 11 of 15



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-023 2037

CLIENT: Life Science Labs-LIMS

Project: Location: 1607552-QuES&T

Matrix:

Q16-0602 SUNY Purchase

Lab ID:

K1606016-012A

Collection Date: Date Received:

05/20/16 8:36

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.40	mg/L	06/06/16 15:29
Lead	0.0051	mg/L	06/06/16 15:29

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Page 12 of 15



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

Client Sample ID: 0602-025 2062

CLIENT: Life Science Labs-LIMS

Project:

1607552-QuES&T

Location:

Q16-0602 SUNY Purchase

Matrix:

PWS

Lab ID:

K1606016-013A

Collection Date:

121000010-013

Date Received:

05/20/16 8:41 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyze
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.57	mg/L	06/06/16 15:33
Lead	0.0056	mg/L	06/06/16 15:33

Qualifiers:

- Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

CLIENT: Life Science Labs-LIMS

Project: 1607552-QuES&T

Location: Q16-0602 SUNY Purchase

Matrix: I

DIVO

Client Sample ID: 0602-027 1061

Lab ID:

K1606016-014A

Collection Date: Date Received:

05/20/16 8:46

05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.27	mg/L	06/06/16 15:46
Lead	< 0.0010	mg/L	06/06/16 15:46

Qualifiers:

- Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - S Spike Recovery outside accepted recovery limits



5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

State Certification No: 10248

CLIENT: Life Science Labs-LIMS

Project:

1607552-QuES&T

Location:

Q16-0602 SUNY Purchase

Matrix:

PWS

Client Sample ID: 0602-029 1021

Lab ID:

K1606016-015A

Collection Date: Date Received:

05/20/16 8:52 05/20/16 13:35

Analyte	Result and Qualifiers	Units	Date Analyzed
METALS BY ICPMS		EPA 200.8	(E200.2)
Copper	0.37	mg/L	06/06/16 15:58
Lead	0.0054	mg/L	06/06/16 15:58

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
 - S Spike Recovery outside accepted recovery limits

Page 15 of 15

East Syracuse, NY 13057 5854 Butternut Drive TST

Chain of Custody Record

1607552 Ques&T

Phone # (3	Phone # (315) 445-1105		Telefax # (315) 445-1301	(315) 445-	1301	Cont	Contact Person:	LSL Project #:	ect #:	5440		
Client:	SUE (TX	Phone # 3	6	318-603		0			7445		·
Address:	1576	7.0	Fax # 0	K-ST	18-625	3 C	とこと	Client's Site I.D.:	16 I.D.: 50/N S	50NY Prehes	\frac{1}{\pi}	
		STUZKENDY V	16		2	<u> </u>	をここ					
	00		Authorization:	ion:		-		Client's P	Client's Project I.D.:	-0203		
1 10 10 10 10 10 10 10 10 10 10 10 10 10		Client's Sample	Sample	Sample	Type	200	Preserv.	Containers	a de la companya de l		Free CI	Pres.
		2/11/100 CM	Alt	2,22	**************************************	+	1	+	2		(= /G)	5
9 0	100	シャークなっている		47.4	\$				7	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
)	X X	702030116		1×3	X	3	10,502	<u>S</u>	1080	S. Johns		3
		5/N 1 KG-80/3		435	×	3	Na 302	8	7 /v4C]	el iterur		
Š	003	9511 500 CVD		7.38	×	\mathcal{M}	HICOS!	350)+08.	, , , , , , , , , , , , , , , , , , ,	·	42
ဒီ	ocy	-5-1 0D-600		7.38	\ \		HINDE	250	PD+			ر ا
		-25(1) FOOKED		72	X,	$ \mathcal{M} $	No Sto	$\tilde{0}$) hat	oliten .		
	9	RAGOS 1-5-		73	×		15.36	(CO)	TOXOL	el form		
Š	005	Mason UNI		14.6			H1005	33	Sot	\ \{		₹ 7
Š	ccc	asson LN1		15%	メ	3	NOON NOON	3	Act	3		Ø7
	,	and UN1		7.45	X	[Y	bist	200	Testil C	SIXENUL		
	,	INI EDEOR		7.45	X	I'nλ i	15.501	(S)	Tookala	JAFNUN-		-
o O	00.7	1003013 (151	_	7.51	X	$ \mathcal{M} $	HUDS	920	JOD+	Ser.	·	42
Š	00%	157 MOCON	,	7:51	メ		HIVOE	25	tc/Q	Car		87
·	7	102015 UST	\nearrow	7.50	X	W//	435Ch	100	Total	Co/storus		
	,	150 0116 159	QE/5	7.56	Υ.		1830 1030	8	Total (JAKW.		
			,		-		a de l					
Notes and	Notes and Hazard identifications:	tifications:					Custe	Custody Transfers	ers		Date	Time
	hose	M/ 00 //		Sampled	Sampled By: John Gine	*/	A.B.	Received By:			0.5/20/16	
	V	_	ich Jan	Relinquished By:	shed By:			Received By:				
· · · · ·	100	Samples of Contraction	3	Relinqui	Relinquished By:	Merchan	Received	Received for Lab By:	Hill 3		SEDITU	1335
	वंड कृष्ट	18/5 dd 19/100	9	Shipmen	Shipment Method:			Samples	Samples Received Intact: Y	N 140°C	. 1	·

5854 Butternut Drive TST

East Syracuse, NY 13057

Chain of Custody Record

1607552

QuES&T

Phone # (315) 445-1105		Telefax#	Telefax # (315) 445-1301	1301		Contact	Contact Person:	LSL Project #:		5440	9	
Client:	,55× T	Phone #	Phone # 845-24K-603	16-603			0		Ž	Kicacaca X	ħ Ť	
\ <u>\</u>	Soute 9	Fax # 845-498-635	345.34g	8-625		101/10 101/10) }	Client's Site I.D.:		SUNY Purchase	9)	
V, 13	AMINAGES FALLS NY 1259C	NY IS	159C	~		<u> </u>	r 5					
		Authorization.	ion.					Client's Pr	Client's Project I.D.: $\bigcirc \bigcirc \bigcirc$	400/010N		
	Client's Sample	Sample	Sample	Type		<u>a</u>	H	Containers			Free CI	Pres.
LSL Sample Number	Identifications	Date	Time	grab comp.	$\overline{}$	Matrix	Added #	# size/type	Ans	Analyses	(mg/L)	Check
009	MASS ASSESSED	力性	8.13	 ×		H M	1.00x	E	Br	de.		42
	1800 CA 18 18 18 18 18 18 18 18 18 18 18 18 18		6.13	×		3° 3	Na 52/12	(201	1/2401	Shirorne		
O O	CHE PICCH		A'S	×) H	H 1003	220	11+98	<i>Y</i>		72
	CB2 CCT CAN	14/15 14/15	4:22	/		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	May 5,02	3	15h1/	Alterar		
110	5405/40-40MO		12/20	 ×		M W	HNOS	350	Pb + (1.)			87
	505 540-4000	1.00 Miles	8.3	1		N Na	Na.Silos	QOI	+10401 C	10/58/cm		
\$10 610	102-CON		8,30	×		1 H	H/103	$ \mathcal{X} $	Ph +C	1		8
	16 1 60-00 M	1/2/10	487	×		1/4	1625.02	201	134	Coltan		
013	0020× 3/4	等力	 	×		<u> </u>	NV	320	AD+C	3		ر الا
	10 00 2018	200 P. J.	Ch: 8	<u>/</u>		.√ ⁄\\s	Mass 03	100	TOSE	1 Colifferen		
710	1011 FROM	W/5/5	18:46	X		MH	HNO3	350	Phrl			84
	1011 80-012	1/01/2	<i>也。</i> ※	\ \		7	1/25502	100	15th/	alistoral		
o v	1001 100-00	5/20/16	8:47	\times		W H	HNUS	1250	Pot			4
	1501 00-001	5/00/16	8:53	7		W/We	NowSalls	00	124/	Polytoplan		
			S									
-												-

1st draw asper Corrie P. Natural Sciences Building Notes and Hazard identifications: Samples Collected on 5/40/16 All Pb+Cu samples are

Relinquished By:

Sampled By:

Received for Lab By: Relinquished By:

Shipment Method:

Samples Received Intact: Y

Z

ST2011 11355

13/6

John Gisnar

JOLL O KO KOT WING CEIVED BY:

Custody Transfers



Kenneth C. Eck QuES&T 1376 Route 9 Wappingers Falls, NY 12590 Phone:

(845) 298-6031

FAX:

(845) 298-6251

Laboratory Analysis Report Prepared For

QuES&T

Client Project ID:

Q16-0602 SUNY Purchase

LSL Project ID: 1607550

Receive Date/Time: 05/20/16 13:35

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody and the Sample Receipt documents submitted with these samples are considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

LSL Central Lab 5854 Butternut Drive East Syracuse, NY 13057 Tel. (315) 445-1900 Fax (315) 445-1104 NYS DOH ELAP #10248 PA DEP #68-2556 LSL North Lab 131 St. Lawrence Avenue Waddington, NY 13694 Tel. (315) 388-4476 Fax (315) 388-4061 NYS DOH ELAP #10900 LSL Finger Lakes Lab 16 N. Main St., PO Box 424 Wayland, NY 14572 Tel. (585) 728-3320 Fax (585) 728-2711 NYS DOH ELAP #11667 LSL Southern Tier Office Cuba, NY Tel. (585) 209-4032

LSL MidLakes Office Canandaigua, NY Tel. (585) 728-3320

This report was reviewed by:

JAHO GR

Date:

Dr. Joseph L. Jeraci, Lead Tech. Director

QuES&T

Wappingers Falls, NY

Sample ID:

0602-003 UNG

LSL Sample ID:

Location:

Library

Sampled:

05/20/16 7:25

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	i Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

Sample ID:

0602-004 LNG

LSL Sample ID:

1607550-002

1607550-001

Location:

Library

Sampled:

05/20/16 7:25

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Metho	d Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

Sample ID:

0602-007 USG

LSL Sample ID:

LSL Sample ID:

1607550-003

1607550-004

Location:

Library

Sampled:

1: 05/20/16 7:30

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Anal	ysis	Analyst
Analyte	Result Units	Date	Date &	Time	Initials
(1) Total Coliform by Readycult Method					
Total Coliform	Negative		5/21/16	07:15	DA
E. coli Screen	Negative		5/21/16	07:15	DA

Sample ID:

0602-008 LSG

Library

Location: Sampled:

05/20/16 7:30

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

OuES&T

Wappingers Falls, NY

1607550-005 0602-011 UN1 LSL Sample ID: Sample ID: Library Location: Sampled By: JE Sampled: 05/20/16 7:45 Sample Matrix: PW **Analytical Method** Prep Method Prep Analysis Analyst Date Date & Time **Initials** Result Units Analyte (1) Total Coliform by Readycult Method DA 5/21/16 07:15 **Total Coliform** Negative DA E. coli Screen Negative 5/21/16 07:15 1607550-006 0602-012 LN1 LSL Sample ID: Sample ID: Location: Library Sampled By: JE 05/20/16 7:45 Sampled: Sample Matrix: PW Prep Method Prep Analysis Analyst **Analytical Method Initials** Result Units Date Date & Time Analyte Total Coliform by Readycult Method DA **Total Coliform** Negative 5/21/16 07:15 DA 5/21/16 07:15 Negative E. coli Screen LSL Sample ID: 1607550-007 Sample ID: 0602-015 US1 Location: Library Sampled By: JE Sampled: 05/20/16 7:56 Sample Matrix: PW **Prep Method** Prep Analysis Analyst **Analytical Method Initials** Result Units Date Date & Time Analyte (1) Total Coliform by Readycult Method DA Negative 5/21/16 07:15 **Total Coliform** DA 5/21/16 07:15 E. coli Screen Negative LSL Sample ID: 1607550-008 Sample ID: 0602-016 LS1 Location: Library 05/20/16 7:56 Sampled By: JE Sampled:

Sample Matrix: PW

Analytical Method	Prep Meth	od Prep Date	Analysis Date & Time	Analyst Initials
<u>Analyte</u>	Result Units	Date	Date & Time	Illitiais
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

QuES&T Wappingers Falls, NY

Sample ID:

0602-018 Basement

LSL Sample ID:

1607550-009

Location:

Natural Sciences Building

Sampled:

05/20/16 8:13

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Analysis Date & Time	Analyst Initials
<u>Analyte</u>	Result Units	Date	Date & Time	Illitials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

Sample ID:

0602-020 3042

LSL Sample ID:

1607550-010

Location:

Natural Sciences Building

Sampled:

05/20/16 8:23

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Analysis	Analyst
Analyte	Result Units	<u>Date</u>	Date & Time	Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

Sample ID:

0602-022 3023

LSL Sample ID:

1607550-011

Location:

Natural Sciences Building

Sampled:

05/20/16 8:31

Sampled By: JE

Sample Matrix: PW

Analytical Method Analyte	Prep Method	Prep	Analysis	Analyst
	Result Units	Date	Date & Time	Initials
(1) Total Coliform by Readycult Method Total Coliform E. coli Screen	Negative Negative		5/21/16 07:15 5/21/16 07:15	DA DA

Sample ID:

0602-024 2057

LSL Sample ID:

1607550-012

Location:

Natural Sciences Building

Sampled:

05/20/16 8:37

Sampled By: JE

Sample Matrix: PW

Analytical Method Analyte	Prep Metho Result Units	d Prep Date	Analysis Date & Time	Analyst Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

QuES&T

Wappingers Falls, NY

Sample ID:

0602-026 2062

LSL Sample ID:

1607550-013

Location:

Natural Sciences Building

Sampled:

05/20/16 8:42

Sampled By: JE

Sample Matrix: PW

Analytical Method Analyte	Prep Method Result Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Total Coliform by Readycult Method Total Coliform E. coli Screen	Negative Negative		5/21/16 07:15 5/21/16 07:15	DA DA

Sample ID:

0602-028 1061

LSL Sample ID:

1607550-014

Location:

Natural Sciences Building

Sampled:

05/20/16 8:47

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
<u>Analyte</u>	Result Units	Date	Date & Time	IIIIIIII
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

Sample ID:

0602-030 1021

LSL Sample ID:

1607550-015

Location:

Natural Sciences Building

Sampled:

05/20/16 8:53

Sampled By: JE

Sample Matrix: PW

Analytical Method	Prep Method	Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials
(1) Total Coliform by Readycult Method				
Total Coliform	Negative		5/21/16 07:15	DA
E. coli Screen	Negative		5/21/16 07:15	DA

East Syracuse, NY 13057 5854 Butternut Drive TST

Chain of Custody Record

	Phone # (315) 445-1105	: :					
		(315) 445-1301	Contact Person:	LSI Project#-			į
	Client: CALCAL	Phone # 95 28-(1)2			5440	چ ^ت لاي	
	Address: Block of	Fax # 64-126 / 120	(Serie)				
	-11/12/02/SCO2M	アノ		Client's Site I.D.: SUN & ACL			
			FO = 01				ı
		Authorization: Sample Sample Ivne	-	Client's Project I.D.: (V/6-0)	83		
2 2	15, all hours Pois H MM MILL	Time grab comp.	Matrix Added #	Containers # size/type		Free CI	Pres.
		Machine X	5 H W 1	2		(mg/L)	Check
	001	100 X	20011	SO Phyllin			
	JNI FRANKI EOO	2/2/2/2	W 1422	100 Total Colt	350		
	1820 18C	180	122/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2	100 Takes (0)			
	-5-1 0D-EON	7 × × 7		10+CV			
	003 WARD (144-	ンがた		50 pr+Cc			
	Oct Caxes 1-4-	くらん	N 100000	40 1401 On	77.77		
-	Mary WIL	1 2 15h	2000	00 TON (O)	3		
	NI MOSCO	11/1/2	Z	1	200		
	1111 1111 SOO	1. 1. X	N HOOM	Sold Office of the sold of the			
	LV CVCVD 300	X Q.:/	N 42561	100 Tet 100	10/6 / 10		
	The Street	10.20 ×	1 10000 N	A10142 00			
	17 Moall	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A WING O	00	200	+-	
	100 JACON 100	7.51 X	A HNG2 6	0770			
	00% 1870 157	LYSOX -	1 4257 1				
1	0101 MANIE 1010	1007.56 X IN	J. RON	1000 THE	3 3		
12	Notes and Hazari identification		2000	TO TO TO	1/ W/		Ī
			Cuetode, T				· -
	うるでご		at a	ransiers		Date	Time
-	-	Samuel Ry. On Cishol M.	DAMES!			+	

Received for Lab By: Received By: Received By: Sampled By: John Girner Milly Relinquished By: Relinquished By:

91/07/50

Shipment Method:

Samples Received Intact: V

East Syracuse, NY 13057 5854 Butternut Drive TST

Chain of Custody Record

Edst Syla					•					Louis	
Phone # (315) 445-1105		Telefax # (315) 44	315) 445-	15-1301	Cont	Contact Person:	LSL Project #:	t #:	the section, being people for the	ı	
Client:	JES T	Phone #	845-31	845-298-6031		0,00		:	575C		
137	Route 9	Fax#	45-24	845-298-6251			Client's Site I.D.:		SUNY Purchase	se	
7	MARINGERS FAILS NY 1259C	MY 12	,59C	_	<u> </u>	550					
		Authorization:	ion:				Client's Project I.D.:		Alle-0/003		
	Client's Sample	Sample	Sample	Type		Preserv. C	Containers		Amathene	Free CI	Pres.
Lar sample vuriner	MODAN PALANO			Kran Comp.		 		a	The state of the s	(7/9m)	
600	MD OK BERNIN	7/8%	かる	 ×	3	1/42/20/12	1001	101	1 Politorne		
	CHE BUCCH	MH5	12.X	×	M	HAMBS	250	J. S.	t Par		
0.0	CHE CHICKLY	等	18.7	4	3	Ma, 50,05	[20]	75hi	MAHEIRE		
	5405/20-2000	彩	X.X	×	3	HNO3	320	Pb + (
- 5		- FARE	8.3	/ /	3	Na.Sz.D.z	Q0]	total	1 C 3/1581M		
	100 550-CM	2000年	13,30	×	3	H/M3	R	d	1		
200	408 1 80-01V	1 CANON	48/	X	3	1/425:02	100	デ	S COLPORA		
	00202 NIN	の表が	 - - -	' ×	, \	itMOz	320	9	ンナで		
013	MAR COLO XUR	3775	18:4J	×	W	Na.5.203	100		bed Colifform	7	
	MIND-CO-MOI	5/8/12/2	18°46	×	Z	HNOS	350	B	4618	,	
TIO	100 80-000	15/JUN/12	机%	×	78	Massilla	001	10/2	al Californal		
	Mas con WI	5/50/16	18:52	×	<u></u>	HNUS	250	9	+ (1)		
015	1/201-0011	5/00/10	8053	:/	M	No.55 De	, 00	12	1 (aliteralien		
			S	-							
									e de la companya de l		
						minima de la companya					
Notes and Hazard identifications:	ntifications:	(;				Custo	Custody Transfers	S		Date	Time
Samples Coll	Samples Collected on 5/20/16 (3)	<u>3)</u>	Sampled	led By: $\bigcup_{0 \in \mathcal{C}}$	s Go	OCCIE PO hot While Meived By:	ceived By:	John Gisner	or Men	5/40/16	9:30
Natural	Natural Sciences Builling	Pring	Relingui	uished By:			/ Received By:		•		
		7			1 the			11 13	Control	1	

MACKS

Samples Received Intact: Y

Received for Lab By:

Relinquished By:

Shipment Method: