



April 16, 2020

Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service – Heartland Region
2300 Main Street
Kansas City, MO 64108

Re: Goodfellow Federal Center – Bldg. #105 Drinking Water Sampling
Project No. 121244

Dear Ms. Czarnecki:

Thank you for the opportunity to provide the General Services Administration (GSA) with the above referenced environmental sampling activities. The following is our report.

INTRODUCTION

As requested, Burns & McDonnell conducted drinking water sampling and testing for the presence of lead and copper at Building #105 of the Goodfellow Federal Center located at 4300 Goodfellow Boulevard in St. Louis, Missouri. Sampling was completed in response to the ongoing environmental condition assessment at the Goodfellow Federal Center which is documented at the Goodfellow Federal Center Reading Room located at <https://www.gsa.gov/portal/content/212361>.

Drinking water sampling was conducted to determine the current levels of lead and copper in representative sources throughout the complex. Drinking water sampling at Bldg. #105 was conducted on March 13 and March 18, 2020 by Emily Ahlemeyer of Burns & McDonnell, Jeff Smith of OCCU-TEC, and Kevin Heriford of OCCU-TEC.

METHODOLOGY

The sampling methodology used during this investigation was developed in general accordance with the United States Environmental Protection Agency's (EPA) "Quick Guide to Drinking Water Sample Collection – Second Edition" developed by the EPA Region 8 in September 2016.

Samples were collected as first draw samples in accordance with the Lead and Copper Rule (40 CFR Part 141 Subpart I). First draw samples represent 'worst case' conditions with water that has been stationary within the plumbing systems for a minimum of six hours. The samples were collected in individually labeled 1000 milliliter (mL) plastic bottles capped with Teflon septa lined screw caps. The bottles were filled to the shoulder with water from the sample source. The samples were then placed in a cooler for safe transport. Each sample was acidified at the laboratory as needed.

Diane Czarnecki
 Facilities Management Division
 April 16, 2020
 Page 2

Drinking water sampling for the presence of lead and copper was conducted at 39 distinct locations within Building #105. A total of 44 samples were obtained including duplicate samples. After each drinking water sample was collected, Burns & McDonnell filled a separate sample cup with approximately 2 inches of water. Burns & McDonnell placed a VANTAKOOL pH Meter and a Taylor 9842 temperature probe into the sample cup. After readings stabilized, Burns & McDonnell recorded the readings for pH (the acidity or basicity of an aqueous solution) and the temperature (in degrees Celsius) on site specific sample logs.

Drinking water samples were submitted to Eurofins-Eaton Analytical in South Bend, IN for analyses of lead and copper. Eurofins-Eaton Analytical is certified by the State of Missouri Department of Natural Resources (MDNR) as an approved drinking water laboratory. Eurofins-Eaton Analytical’s Missouri Certification number is 880.

The drinking water samples were collected using media supplied by Eurofins-Eaton Analytical. Lead and Copper samples were collected and analyzed in accordance with EPA Method 200.8.

RESULTS AND DISCUSSION

The results for the subject testing are summarized in the table below.

Analysis	Lowest Concentration^(a)	Highest Concentration^(a)	Action Level^(b)
Lead	<0.001 mg/L	0.007 mg/L	0.015 mg/L
Copper	0.017 mg/L	0.110 mg/L	1.3 mg/L

Notes:

(a) Samples with a “<” sign indicate that the results were below the reportable limit.

(b) As per EPA Lead and Copper Rule (40 CFR Part 141 Subpart I).

A summary table of all sampling results by location is included in Appendix A. The complete laboratory report for the drinking water sampling from Eurofins-Eaton Analytical is attached in Appendix B.

Lead

All samples were below the Action Level (AL) for lead.

Copper

All samples were below the Action Level (AL) for copper.

pH

Normal pH levels for drinking water are between 6.0 to 8.5. Water with a pH < 6.5 is considered acidic, soft, and corrosive. Acidic water may contain metal ions, may cause premature damage to

Diane Czarnecki
Facilities Management Division
April 16, 2020
Page 3

metal piping, and increases the likelihood of leaching. Water with a pH > 8.5 is considered alkaline or basic and can indicate that the water is hard. Hard water does not pose a health risk but can cause aesthetic problems. These problems include an alkali taste, the formation of scale deposits, and difficulty in getting soaps and detergents to lather.

The recorded pH levels in Building #105 ranged from 8.65 to 9.41, indicating the drinking water is slightly alkaline.

LIMITATIONS

The scope of this assessment was limited in nature. Burns & McDonnell collected samples from a select number of drinking water sources in an effort to minimize cost while providing a general overview of the drinking water quality at the site. Sample locations do not encompass every drinking water source at the Site. Additionally, samples were only analyzed for a select number of potential contaminants likely to affect the drinking water quality at the site. Burns & McDonnell is not responsible for potential contaminants not identified in this report.

This report was prepared for the sole use of GSA. Reliance by any party other than GSA is expressly forbidden without Burns & McDonnell's written permission. Any parties relying on the report, with Burns & McDonnell's written permission, are bound by the terms and conditions outlined in the original proposal as if said proposal was prepared for them.

Burns & McDonnell appreciates the opportunity to work with the General Services Administration on this project. Please contact us if you have any questions regarding this report or if we may be of any additional service.

Sincerely,

(b) (6)

Matt Shanahan, CHMM
Project Manager

Attachments:

- Appendix A - Results Summary by Location
- Appendix B - Water Sample Laboratory Report

APPENDIX A – RESULTS SUMMARY BY LOCATION

Appendix A

Results Summary by Location

Goodfellow Federal Center - Building 105												
Sample Number	Location	pH	Temp (°C)	Water Source	Analyte		Result	Units	MRL	Dil Factor	Above/ Below	AL
105-PbW-01	1st floor break room @ B10	9.12	16.0	Sink	Copper		86	µg/L	1.0	1	Below	1300
105-PbW-01	1st floor break room @ B10	9.12	16.0	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-02	1st floor right drinking fountain @ B6	8.97	16.5	R DF	Copper			µg/L	1.0		Below	1300
105-PbW-02	1st floor right drinking fountain @ B6	8.97	16.5	R DF	Lead	<		µg/L	1.0		Below	15
105-PbW-03	First floor nursing room sink @ H12	8.97	16.5	Sink	Copper		91	µg/L	1.0	1	Below	1300
105-PbW-03	First floor nursing room sink @ H12	8.97	16.5	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-04	Duplicate of 105-PbW-03	9.27	21.7	Sink D	Copper		91	µg/L	1.0	1	Below	1300
105-PbW-04	Duplicate of 105-PbW-03	9.27	21.7	Sink D	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-05	1st floor left drinking fountain @ B19	9.38	11.1	L DF	Copper		46	µg/L	1.0	1	Below	1300
105-PbW-05	1st floor left drinking fountain @ B19	9.38	11.1	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-06	1st floor drinking fountain @ B13	9.09	14.2	DF	Copper		19	µg/L	1.0	1	Below	1300
105-PbW-06	1st floor drinking fountain @ B13	9.09	14.2	DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-07	1st floor drinking fountain @ B34	9.17	21.0	DF	Copper		82	µg/L	1.0	1	Below	1300
105-PbW-07	1st floor drinking fountain @ B34	9.17	21.0	DF	Lead		2.0	µg/L	1.0	1	Below	15
105-PbW-08	Duplicate of 105-PbW-07	9.17	21.0	DF D	Copper		95	µg/L	1.0	1	Below	1300
105-PbW-08	Duplicate of 105-PbW-07	9.17	21.0	DF D	Lead		2.1	µg/L	1.0	1	Below	15
105-PbW-09	1st floor drinking fountain @ H52	9.35	20.4	R DF	Copper		25	µg/L	1.0	1	Below	1300
105-PbW-09	1st floor drinking fountain @ H52	9.35	20.4	R DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-10	2nd floor drinking fountain @ G27	9.30	24.3	L DF	Copper		69	µg/L	1.0	1	Below	1300
105-PbW-10	2nd floor drinking fountain @ G27	9.30	24.3	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-11	Duplicate of 105-PbW-10	9.30	24.3	L DF D	Copper		74	µg/L	1.0	1	Below	1300
105-PbW-11	Duplicate of 105-PbW-10	9.30	24.3	L DF D	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-12	2nd floor drinking fountain @ G9	9.41	13.8	L DF	Copper		36	µg/L	1.0	1	Below	1300
105-PbW-12	2nd floor drinking fountain @ G9	9.41	13.8	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-13	2nd floor break room @ B18	9.14	20.8	Sink	Copper		17	µg/L	1.0	1	Below	1300
105-PbW-13	2nd floor break room @ B18	9.14	20.8	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-14	2nd floor drinking fountain @ B20	9.07	13.0	L DF	Copper		38	µg/L	1.0	1	Below	1300
105-PbW-14	2nd floor drinking fountain @ B20	9.07	13.0	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15

Appendix A

Results Summary by Location

Goodfellow Federal Center - Building 105												
Sample Number	Location	pH	Temp (°C)	Water Source	Analyte		Result	Units	MRL	Dil Factor	Above/ Below	AL
105-PbW-15	Duplicate of 105-PbW-14	9.07	13.0	L DF D	Copper		38	µg/L	1.0	1	Below	1300
105-PbW-15	Duplicate of 105-PbW-14	9.07	13.0	L DF D	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-16	2nd floor break room @ B30	8.99	22.4	Sink	Copper		34	µg/L	1.0	1	Below	1300
105-PbW-16	2nd floor break room @ B30	8.99	22.4	Sink	Lead		1.1	µg/L	1.0	1	Below	15
105-PbW-17	Duplicate of 105-PbW-16	8.99	22.4	Sink D	Copper		30	µg/L	1.0	1	Below	1300
105-PbW-17	Duplicate of 105-PbW-16	8.99	22.4	Sink D	Lead		3.6	µg/L	1.0	1	Below	15
105-PbW-18	2nd floor drinking fountain @ B30	8.98	12.9	L DF	Copper		60	µg/L	1.0	1	Below	1300
105-PbW-18	2nd floor drinking fountain @ B30	8.98	12.9	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-19	2nd floor SW bottle filler	9.14	13.8	DF	Copper		41	µg/L	1.0	1	Below	1300
105-PbW-19	2nd floor SW bottle filler	9.14	13.8	DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-20	2nd floor SW drinking fountain	9.09	13.8	L DF	Copper		28	µg/L	1.0	1	Below	1300
105-PbW-20	2nd floor SW drinking fountain	9.09	13.8	L DF	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-21	2nd floor SW lab room 348, front sink	9.27	24.5	Sink	Copper		23	µg/L	1.0	1	Below	1300
105-PbW-21	2nd floor SW lab room 348, front sink	9.27	24.5	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-22	2nd floor SW lab room 349, back sink	9.05	26.0	Sink	Copper		57	µg/L	1.0	1	Below	1300
105-PbW-22	2nd floor SW lab room 349, back sink	9.05	26.0	Sink	Lead		3.0	µg/L	1.0	1	Below	15
105-PbW-23	2nd floor SW lab room 360, NW corner sink	9.20	20.7	Sink	Copper		34	µg/L	1.0	1	Below	1300
105-PbW-23	2nd floor SW lab room 360, NW corner sink	9.20	20.7	Sink	Lead		2.5	µg/L	1.0	1	Below	15
105-PbW-24	2nd floor SW lab room 359, south sink	9.21	20.8	Sink	Copper		58	µg/L	1.0	1	Below	1300
105-PbW-24	2nd floor SW lab room 359, south sink	9.21	20.8	Sink	Lead		2.1	µg/L	1.0	1	Below	15
105-PbW-25	2nd floor lab room 358, north sink	9.12	23.7	Sink	Copper		47	µg/L	1.0	1	Below	1300
105-PbW-25	2nd floor lab room 358, north sink	9.12	23.7	Sink	Lead		2.4	µg/L	1.0	1	Below	15
105-PbW-26	2nd floor lab room 356, NW sink	9.20	23.3	Sink	Copper		69	µg/L	1.0	1	Below	1300
105-PbW-26	2nd floor lab room 356, NW sink	9.20	23.3	Sink	Lead		6.6	µg/L	1.0	1	Below	15
105-PbW-27	2nd floor lab room 337, SE sink	9.20	25.6	Sink	Copper		46	µg/L	1.0	1	Below	1300
105-PbW-27	2nd floor lab room 337, SE sink	9.20	25.6	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15

Appendix A

Results Summary by Location

Goodfellow Federal Center - Building 105												
Sample Number	Location	pH	Temp (°C)	Water Source	Analyte		Result	Units	MRL	Dil Factor	Above/ Below	AL
105-PbW-28	2nd floor lab room 339, north sink	9.11	25.1	Sink	Copper		81	µg/L	1.0	1	Below	1300
105-PbW-28	2nd floor lab room 339, north sink	9.11	25.1	Sink	Lead		1.9	µg/L	1.0	1	Below	15
105-PbW-29	2nd floor lab room 340, north sink	8.91	23.9	Sink	Copper		58	µg/L	1.0	1	Below	1300
105-PbW-29	2nd floor lab room 340, north sink	8.91	23.9	Sink	Lead		6.6	µg/L	1.0	1	Below	15
105-PbW-30	2nd floor lab room 341, center island, north side	9.04	22.8	Sink	Copper		60	µg/L	1.0	1	Below	1300
105-PbW-30	2nd floor lab room 341, center island, north side	9.04	22.8	Sink	Lead		3.0	µg/L	1.0	1	Below	15
105-PbW-31	2nd floor lab room 345, center island, south side	9.23	23.0	Sink	Copper		67	µg/L	1.0	1	Below	1300
105-PbW-31	2nd floor lab room 345, center island, south side	9.23	23.0	Sink	Lead		1.5	µg/L	1.0	1	Below	15
105-PbW-32	2nd floor break room, east side, left sink	9.08	25.5	Sink	Copper		40	µg/L	1.0	1	Below	1300
105-PbW-32	2nd floor break room, east side, left sink	9.08	25.5	Sink	Lead		2.7	µg/L	1.0	1	Below	15
105-PbW-33	2nd floor break room 317*	9.22	25.2	Sink	Copper		32	µg/L	1.0	1	Below	1300
105-PbW-33	2nd floor break room 317*	9.22	25.2	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-34	2nd floor lab room 314, SE sink	9.24	24.3	Sink	Copper		46	µg/L	1.0	1	Below	1300
105-PbW-34	2nd floor lab room 314, SE sink	9.24	24.3	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-35	1st floor, lab processing, A48 SE sink	9.15	19.0	Sink	Copper		73	µg/L	1.0	1	Below	1300
105-PbW-35	1st floor, lab processing, A48 SE sink	9.15	19.0	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-36	1st floor, lab processing, A47	9.16	19.3	Sink	Copper		44	µg/L	1.0	1	Below	1300
105-PbW-36	1st floor, lab processing, A47	9.16	19.3	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-37	1st floor, lab processing, A46, right side	9.15	20.4	Sink	Copper		45	µg/L	1.0	1	Below	1300
105-PbW-37	1st floor, lab processing, A46, right side	9.15	20.4	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-38	1st floor, lab processing, A46, left side	9.13	20.8	Sink	Copper		50	µg/L	1.0	1	Below	1300
105-PbW-38	1st floor, lab processing, A46, left side	9.13	20.8	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-39	2nd floor lab room 329, SW sink	8.87	22.0	Sink	Copper		50	µg/L	1.0	1	Below	1300
105-PbW-39	2nd floor lab room 329, SW sink	8.87	22.0	Sink	Lead		3.3	µg/L	1.0	1	Below	15

Appendix A

Results Summary by Location

Goodfellow Federal Center - Building 105												
Sample Number	Location	pH	Temp (°C)	Water Source	Analyte		Result	Units	MRL	Dil Factor	Above/ Below	AL
105-PbW-40	2nd floor lab room 328, center island, left side faucet	8.96	23.3	Sink	Copper		40	µg/L	1.0	1	Below	1300
105-PbW-40	2nd floor lab room 328, center island, left side faucet	8.96	23.3	Sink	Lead		1.7	µg/L	1.0	1	Below	15
105-PbW-41	2nd floor lab room 315, south sink (loud rattling)	9.03	24.6	Sink	Copper		58	µg/L	1.0	1	Below	1300
105-PbW-41	2nd floor lab room 315, south sink (loud rattling)	9.03	24.6	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-42	2nd floor lab room 315, center column sink	8.93	22.8	Sink	Copper		65	µg/L	1.0	1	Below	1300
105-PbW-42	2nd floor lab room 315, center column sink	8.93	22.8	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15
105-PbW-43	2nd floor lab room 311, NE sink	8.65	22.5	Sink	Copper		110	µg/L	1.0	1	Below	1300
105-PbW-43	2nd floor lab room 311, NE sink	8.65	22.5	Sink	Lead		1.8	µg/L	1.0	1	Below	15
105-PbW-44	2nd floor lab room 306, north island sink	8.93	23.7	Sink	Copper		51	µg/L	1.0	1	Below	1300
105-PbW-44	2nd floor lab room 306, north island sink	8.93	23.7	Sink	Lead	<	1.0	µg/L	1.0	1	Below	15

Notes:

*Not first draw

DF - Drinking Fountain

D - Duplicate

L/R - Left or Right

MRL - Method Reporting Limit

Dil - Dilution

AL - Action Level

µg/L - micrograms per liter

Sample was broken during transport.

APPENDIX B – WATER SAMPLE LABORATORY REPORT

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

This report may not be reproduced, except in full, without written approval from EEA.

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: OCCU-TEC Inc.

Attn: Kevin Heriford
 2604 NE Industrial Drive
 Suite 230
 North Kansas City, MO 64117

Report: 481128
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4587720	105-PbW-01	200.8	03/12/20 05:40	Client	03/16/20 08:35
4587722	105-PbW-03	200.8	03/12/20 05:55	Client	03/16/20 08:35
4587723	105-PbW-04	200.8	03/12/20 05:55	Client	03/16/20 08:35
4587724	105-PbW-05	200.8	03/12/20 06:00	Client	03/16/20 08:35
4587725	105-PbW-06	200.8	03/12/20 06:05	Client	03/16/20 08:35
4587726	105-PbW-07	200.8	03/12/20 06:09	Client	03/16/20 08:35
4587727	105-PbW-08	200.8	03/12/20 06:09	Client	03/16/20 08:35
4587728	105-PbW-09	200.8	03/12/20 06:25	Client	03/16/20 08:35
4587729	105-PbW-10	200.8	03/12/20 06:32	Client	03/16/20 08:35
4587730	105-PbW-11	200.8	03/12/20 06:32	Client	03/16/20 08:35
4587731	105-PbW-12	200.8	03/12/20 06:37	Client	03/16/20 08:35
4587732	105-PbW-13	200.8	03/13/20 05:15	Client	03/16/20 08:35
4587733	105-PbW-14	200.8	03/13/20 05:17	Client	03/16/20 08:35
4587734	105-PbW-15	200.8	03/13/20 05:17	Client	03/16/20 08:35
4587735	105-PbW-16	200.8	03/13/20 05:25	Client	03/16/20 08:35
4587736	105-PbW-17	200.8	03/13/20 05:25	Client	03/16/20 08:35
4587737	105-PbW-18	200.8	03/13/20 05:30	Client	03/16/20 08:35

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

(b) (6)

ASM

03/20/2020

Authorized Signature

Title

Date

Client Name: OCCU-TEC Inc.

Report #: 481128

Sampling Point: 105-PbW-01

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	86	ug/L	---	03/18/20 17:14	4587720
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:14	4587720

Sampling Point: 105-PbW-03

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	91	ug/L	---	03/18/20 17:21	4587722
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:21	4587722

Sampling Point: 105-PbW-04

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	91	ug/L	---	03/18/20 17:23	4587723
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:23	4587723

Sampling Point: 105-PbW-05

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	46	ug/L	---	03/18/20 17:26	4587724
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:26	4587724

Sampling Point: 105-PbW-06

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	19	ug/L	---	03/18/20 18:15	4587725
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 18:15	4587725

Sampling Point: 105-PbW-07

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	82	ug/L	---	03/18/20 17:30	4587726
7439-92-1	Lead	200.8	15 !	1.0	2.0	ug/L	---	03/18/20 17:30	4587726

Sampling Point: 105-PbW-08

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	95	ug/L	---	03/18/20 17:33	4587727
7439-92-1	Lead	200.8	15 !	1.0	2.1	ug/L	---	03/18/20 17:33	4587727

Sampling Point: 105-PbW-09

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	25	ug/L	---	03/18/20 17:35	4587728
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:35	4587728

Sampling Point: 105-PbW-10

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	69	ug/L	---	03/18/20 17:42	4587729
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:42	4587729

Sampling Point: 105-PbW-11

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	74	ug/L	---	03/18/20 17:45	4587730
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:45	4587730

Sampling Point: 105-PbW-12

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	36	ug/L	---	03/18/20 17:47	4587731
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:47	4587731

Sampling Point: 105-PbW-13

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	17	ug/L	---	03/18/20 17:54	4587732
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:54	4587732

Sampling Point: 105-PbW-14

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	38	ug/L	---	03/18/20 17:56	4587733
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:56	4587733

Sampling Point: 105-PbW-15

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	38	ug/L	---	03/18/20 17:59	4587734
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 17:59	4587734

Sampling Point: 105-PbW-16

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	34	ug/L	---	03/18/20 18:01	4587735
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	03/18/20 18:01	4587735

Sampling Point: 105-PbW-17

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	30	ug/L	---	03/18/20 18:04	4587736
7439-92-1	Lead	200.8	15 !	1.0	3.6	ug/L	---	03/18/20 18:04	4587736

Sampling Point: 105-PbW-18

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	60	ug/L	---	03/18/20 18:06	4587737
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/18/20 18:06	4587737

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: OCCU-TEC Inc.

Attn: Kevin Heriford
 2604 NE Industrial Drive
 Suite 230
 North Kansas City, MO 64117

Report: 481128
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4587721	105-PbW-02	200.8	03/12/20 05:48	Client	03/16/20 08:35

Report Summary

The sample container was broken en route to EEA. The client was notified of the situation, and recollection of the sample was requested.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

(b) (6)

ASM

Authorized Signature

Title

03/20/2020
Date



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 315560
Batch # 481128

www.EurofinsUS.com/Eaton

Shaded area for EEA use only

REPORT TO: mshanahan@burnsmcd.com

9400 Ward Parkway
Kansas City, MO 64114

BILL TO:

same

CHAIN OF CUSTODY RECORD

Page 1 of 2

LAB Number	COLLECTION		COMPLIANCE MONITORING	SAMPLING SITE	TEST NAME	STATE (sample origin)	PROJECT NAME	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
	DATE	TIME									
1	3/12/20	0540	✓	105 - PbW-01	Lead and Copper	MO	GFC	121244	1	DW SW	
2	3/12/20	0548	✓	105 - PbW-02		Municipal			1	DW SW	
3	3/12/20	0555	✓	105 - PbW-03					1	DW SW	
4	3/12/20	0555	✓	105 - PbW-04					1	DW SW	
5	3/12/20	0600	✓	105 - PbW-05					1	DW SW	
6	3/12/20	0605	✓	105 - PbW-06					1	DW SW	
7	3/12/20	0609	✓	105 - PbW-07					1	DW SW	
8	3/12/20	0609	✓	105 - PbW-08					1	DW SW	
9	3/12/20	0632	✓	105 - PbW-09					1	DW SW	
10	3/12/20	0632	✓	105 - PbW-10					1	DW SW	
11	3/12/20	0637	✓	105 - PbW-11					1	DW SW	
12	3/13/20	0615	✓	105 - PbW-12					1	DW SW	
13	3/13/20	0517	✓	105 - PbW-13					1	DW SW	
14	3/13/20	0517	✓	105 - PbW-14					1	DW SW	

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS: Client cup came off during transit, sample lost due 3/16/2020. *Brouk Jeff Smith that sample is invalid. KB

Cross Offs on COC by Client

RECEIVED BY: (Signature) DATE TIME AM PM RECEIVED BY: (Signature) DATE TIME AM PM

RECEIVED FOR LABORATORY BY: (Signature) DATE TIME AM PM RECEIVED BY: (Signature) DATE TIME AM PM

CONDITIONS UPON RECEIPT (check one):
 Iced Wet/Blue Ambient °C Upon Receipt N/A

MATRIX CODES:
 DW-DRINKING WATER
 RW-REAGENT WATER
 GW-GROUND WATER
 SW-SURFACE WATER
 PW-POOL WATER
 WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES
 SW = Standard Written: (15 working days) 0%
 RV* = Rush Verbal: (5 working days) 50%
 RW* = Rush Written: (5 working days) 75%

IV* = Immediate Verbal: (3 working days) 100%
IW* = Immediate Written: (3 working days) 125%
SP* = Weekend, Holiday CALL
STAT* = Less than 48 hours CALL

*** Please call, expedited service not available for all testing**

06-LO-F0435 Issue 7.0 Effective Date: 2018-10-11

Success One on COC pA cidur



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 29550
Batch # 394992

www.EurofinsUS.com/Eaton

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CHAIN OF CUSTODY RECORD

Page 2 of 2

REPORT TO: mshannah@burnsmcd.com (Signature)

9400 Ward Parkway
Kansas City, MO 64114

BILL TO: Same

COMPLIANCE MONITORING

Yes No

PWS ID #

N/A

STATE (sample origin)

MO

PROJECT NAME

GFC

PO#

121244

OF CONTAINERS

1

MATRIX CODE

DW SW

COLLECTION

LAB Number	DATE	TIME	AM	PM
1	3/13/20	0517	✓	
2	3/13/20	0525	✓	
3	3/13/20	0625	✓	
4	3/13/20	0530	✓	
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

SAMPLING SITE

105 - PbW-15
105 - PbW-16
105 - PbW-17
105 - PbW-18

TEST NAME

Lead and Copper

SAMPLE REMARKS

CHLORINATED

YES ✓ NO ✓

RELINQUISHED BY: (Signature)

[Signature]

DATE

3/13/20

RECEIVED BY: (Signature)

[Signature]

DATE

3/16/2020

TIME

0835

CONDITIONS UPON RECEIPT (check one)

Iced: Wet/Blue: Ambient:

LAB COMMENTS

MATRIX CODES:

- DW-DRINKING WATER
- RW-REAGENT WATER
- GW-GROUND WATER
- EW-EXPOSURE WATER
- SW-SURFACE WATER
- PW-POOL WATER
- WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

- SW = Standard Written: (15 working days) 0%
- RV = Rush Verbal: (5 working days) 50%
- RW = Rush Written: (5 working days) 75%

- IV* = Immediate Verbal: (3 working days) 100%
- IW* = Immediate Written: (3 working days) 125%
- SP* = Weekend, Holiday CALL
- STAT* = Less than 48 hours CALL

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

* Please call, expedited service not available for all testing

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.

06-LO-F0435 Issue 7.0 Effective Date: 2018-10-11

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: OCCU-TEC Inc.

Attn: Kevin Heriford
 2604 NE Industrial Drive
 Suite 230
 North Kansas City, MO 64117

Report: 481744
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4593439	105-PbW-19	200.8	03/18/20 05:06	Client	03/20/20 09:00
4593440	105-PbW-20	200.8	03/18/20 05:10	Client	03/20/20 09:00
4593441	105-PbW-21	200.8	03/18/20 05:15	Client	03/20/20 09:00
4593442	105-PbW-22	200.8	03/18/20 05:19	Client	03/20/20 09:00
4593443	105-PbW-23	200.8	03/18/20 05:24	Client	03/20/20 09:00
4593444	105-PbW-24	200.8	03/18/20 05:27	Client	03/20/20 09:00
4593445	105-PbW-25	200.8	03/18/20 05:30	Client	03/20/20 09:00
4593446	105-PbW-26	200.8	03/18/20 05:34	Client	03/20/20 09:00
4593447	105-PbW-27	200.8	03/18/20 05:39	Client	03/20/20 09:00
4593448	105-PbW-28	200.8	03/18/20 05:42	Client	03/20/20 09:00
4593449	105-PbW-29	200.8	03/18/20 05:44	Client	03/20/20 09:00
4593450	105-PbW-30	200.8	03/18/20 05:46	Client	03/20/20 09:00
4593451	105-PbW-31	200.8	03/18/20 05:49	Client	03/20/20 09:00
4593452	105-PbW-32	200.8	03/18/20 05:52	Client	03/20/20 09:00
4593453	105-PbW-33	200.8	03/18/20 05:56	Client	03/20/20 09:00
4593454	105-PbW-34	200.8	03/18/20 06:00	Client	03/20/20 09:00
4593455	105-PbW-35	200.8	03/18/20 06:06	Client	03/20/20 09:00
4593456	105-PbW-36	200.8	03/18/20 06:12	Client	03/20/20 09:00
4593457	105-PbW-37	200.8	03/18/20 06:14	Client	03/20/20 09:00
4593458	105-PbW-38	200.8	03/18/20 06:17	Client	03/20/20 09:00
4593459	105-PbW-39	200.8	03/18/20 06:21	Client	03/20/20 09:00
4593460	105-PbW-40	200.8	03/18/20 06:23	Client	03/20/20 09:00
4593461	105-PbW-41	200.8	03/18/20 06:29	Client	03/20/20 09:00
4593462	105-PbW-42	200.8	03/18/20 06:31	Client	03/20/20 09:00
4593463	105-PbW-43	200.8	03/18/20 06:35	Client	03/20/20 09:00
4593464	105-PbW-44	200.8	03/18/20 06:38	Client	03/20/20 09:00

Report Summary

Client Name: OCCU-TEC Inc.

Report #: 481744

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

(b) (6)

ASM

03/30/2020

Authorized Signature

Title

Date

Client Name: OCCU-TEC Inc.

Report #: 481744

Sampling Point: 105-PbW-19

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	41	ug/L	---	03/26/20 15:51	4593439
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 15:51	4593439

Sampling Point: 105-PbW-20

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	28	ug/L	---	03/26/20 15:54	4593440
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 15:54	4593440

Sampling Point: 105-PbW-21

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	23	ug/L	---	03/26/20 15:56	4593441
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 15:56	4593441

Sampling Point: 105-PbW-22

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	57	ug/L	---	03/26/20 15:59	4593442
7439-92-1	Lead	200.8	15 !	1.0	3.0	ug/L	---	03/26/20 15:59	4593442

Sampling Point: 105-PbW-23

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	34	ug/L	---	03/26/20 16:01	4593443
7439-92-1	Lead	200.8	15 !	1.0	2.5	ug/L	---	03/26/20 16:01	4593443

Sampling Point: 105-PbW-24

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	58	ug/L	---	03/26/20 16:03	4593444
7439-92-1	Lead	200.8	15 !	1.0	2.1	ug/L	---	03/26/20 16:03	4593444

Sampling Point: 105-PbW-25

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	47	ug/L	---	03/26/20 16:15	4593445
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	03/26/20 16:15	4593445

Sampling Point: 105-PbW-26

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	69	ug/L	---	03/26/20 16:17	4593446
7439-92-1	Lead	200.8	15 !	1.0	6.6	ug/L	---	03/26/20 16:17	4593446

Sampling Point: 105-PbW-27

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	46	ug/L	---	03/26/20 16:25	4593447
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:25	4593447

Sampling Point: 105-PbW-28

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	81	ug/L	---	03/26/20 16:27	4593448
7439-92-1	Lead	200.8	15 !	1.0	1.9	ug/L	---	03/26/20 16:27	4593448

Sampling Point: 105-PbW-29

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	58	ug/L	---	03/26/20 16:29	4593449
7439-92-1	Lead	200.8	15 !	1.0	6.6	ug/L	---	03/26/20 16:29	4593449

Sampling Point: 105-PbW-30

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	60	ug/L	---	03/26/20 16:32	4593450
7439-92-1	Lead	200.8	15 !	1.0	3.0	ug/L	---	03/26/20 16:32	4593450

Sampling Point: 105-PbW-31

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	67	ug/L	---	03/26/20 16:34	4593451
7439-92-1	Lead	200.8	15 !	1.0	1.5	ug/L	---	03/26/20 16:34	4593451

Sampling Point: 105-PbW-32

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	40	ug/L	---	03/26/20 16:36	4593452
7439-92-1	Lead	200.8	15 !	1.0	2.7	ug/L	---	03/26/20 16:36	4593452

Sampling Point: 105-PbW-33

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	32	ug/L	---	03/26/20 16:39	4593453
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:39	4593453

Sampling Point: 105-PbW-34

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	46	ug/L	---	03/26/20 16:41	4593454
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:41	4593454

Sampling Point: 105-PbW-35

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	73	ug/L	---	03/26/20 16:48	4593455
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:48	4593455

Sampling Point: 105-PbW-36

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	44	ug/L	---	03/26/20 16:51	4593456
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:51	4593456

Sampling Point: 105-PbW-37

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	45	ug/L	---	03/26/20 16:58	4593457
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 16:58	4593457

Sampling Point: 105-PbW-38

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	50	ug/L	---	03/26/20 17:00	4593458
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 17:00	4593458

Sampling Point: 105-PbW-39

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	50	ug/L	---	03/26/20 17:02	4593459
7439-92-1	Lead	200.8	15 !	1.0	3.3	ug/L	---	03/26/20 17:02	4593459

Sampling Point: 105-PbW-40

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	40	ug/L	---	03/26/20 17:05	4593460
7439-92-1	Lead	200.8	15 !	1.0	1.7	ug/L	---	03/26/20 17:05	4593460

Sampling Point: 105-PbW-41

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	58	ug/L	---	03/26/20 17:07	4593461
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 17:07	4593461

Sampling Point: 105-PbW-42

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	65	ug/L	---	03/26/20 17:10	4593462
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 17:10	4593462

Sampling Point: 105-PbW-43

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	110	ug/L	03/26/20 11:10	03/27/20 11:52	4593463
7439-92-1	Lead	200.8	15 !	1.0	1.8	ug/L	03/26/20 11:10	03/27/20 11:52	4593463

Sampling Point: 105-PbW-44

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	51	ug/L	---	03/26/20 17:12	4593464
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	03/26/20 17:12	4593464

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 394997348
Batch # 481744

www.EurofinsUS.com/Eaton

Shaded area for EEA use only

REPORT TO: mshahan@burnsmcd.com
9400 Ward Parkway
Kansas City, MO 64114

BILL TO:

same

CHAIN OF CUSTODY RECORD

Page 1 of 2

LAB Number	COLLECTION		SAMPLER (Signature)	COMPLIANCE MONITORING		SAMPLING SITE	TEST NAME	PROJECT NAME	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
	DATE	TIME		AM	PM								Yes
1	3/18/20	0506						GFC	121244	1	DN SW		
2		0510				105 - PbW - 19	Lead and Copper			1			
3		0515				105 - PbW - 20					1		
4		0519				105 - PbW - 21					1		
5		0524				105 - PbW - 22					1		
6		0527				105 - PbW - 23					1		
7		0530				105 - PbW - 24					1		
8		0534				105 - PbW - 25					1		
9		0539				105 - PbW - 26					1		
10		0542				105 - PbW - 27					1		
11		0544				105 - PbW - 28					1		
12		0546				105 - PbW - 29					1		
13		0549				105 - PbW - 30					1		
14		0552				105 - PbW - 31					1		

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

RELINQUISHED BY: (Signature) DATE 3/19/20 TIME 1600 AM | PM

RECEIVED BY: (Signature) _____ DATE _____ TIME _____ AM | PM

RELINQUISHED BY: (Signature) DATE _____ TIME _____ AM | PM

RECEIVED BY: (Signature) _____ DATE _____ TIME _____ AM | PM

RELINQUISHED BY: (Signature) _____ DATE _____ TIME _____ AM | PM

RECEIVED BY: (Signature) _____ DATE _____ TIME _____ AM | PM

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one):
 Iced: Wet/Blue _____ Ambient _____ °C Upon Receipt _____ N/A

MATRIX CODES:
 DW-DRINKING WATER
 RW-REAGENT WATER
 GW-GROUND WATER
 EW-EXPOSURE WATER
 SW-SURFACE WATER
 PW-POOL WATER
 WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days) 0%
 RV* = Rush Verbal: (5 working days) 50%
 RW* = Rush Written: (5 working days) 75%

IV* = Immediate Verbal: (3 working days) 100%
 IW* = Immediate Written: (3 working days) 125%
 SP* = Weekend, Holiday CALL
 STAT* = Less than 48 hours CALL

* Please call, expedited service not available for all testing

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.

06-LO-F0435 Issue 7.0 Effective Date: 2018-10-11



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
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Order # 39499230
Batch # 31251220

www.EurofinsUS.com/Eaton

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CHAIN OF CUSTODY RECORD

Page 2 of 2

REPORT TO: mshanahan@burnsmcd.com SAMPLER (Signature)

9400 Ward Parkway

Kansas City, MO 64114

BILL TO:

Same

COMPLIANCE MONITORING	Yes	No
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PWS ID #	N/A
POPULATION SERVED	N/A
STATE (sample origin)	MO
SOURCE WATER	Municipal

PROJECT NAME	GFC
PO#	121244

MATRIX CODE	DW
# OF CONTAINERS	1
TURNAROUND TIME	5W

LAB Number	COLLECTION		SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED	
	DATE	TIME				YES	NO
4593453	3/18/20	0550	105 - PbW - 33	Lead and Copper		<input checked="" type="checkbox"/>	<input type="checkbox"/>
454		0600	105 - PbW - 34		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
455		0606	105 - PbW - 35		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
456		0612	105 - PbW - 36		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
457		0614	105 - PbW - 37		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
458		0617	105 - PbW - 38		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
459		0621	105 - PbW - 39		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
460		0623	105 - PbW - 40		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
461		0629	105 - PbW - 41		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
462		0631	105 - PbW - 42		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
463		0635	105 - PbW - 43		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
464		0638	105 - PbW - 44		<input checked="" type="checkbox"/>	<input type="checkbox"/>	

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	3/19/20	1600			
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
				03/19/20	0900
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one):
 Iced: Wet/Blue Ambient °C Upon Receipt _____ N/A

MATRIX CODES:
 DW-DRINKING WATER
 RW-REAGENT WATER
 GW-GROUND WATER
 EW-EXPOSURE WATER
 SW-SURFACE WATER
 PW-POOL WATER
 WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES
 SW = Standard Written: (15 working days) 0%
 RW* = Rush Written: (5 working days) 50%
 RW** = Rush Written: (5 working days) 75%

IV* = Immediate Verbal: (3 working days) 100%
 IW* = Immediate Written: (3 working days) 125%
 SP* = Weekend, Holiday CALL
 STAT* = Less than 48 hours CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.