

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-150673-1

Client Project/Site: Primary & Secondary Drinking Water

For:

Lubrizol Advanced Materials, Inc

41 Tidal Road

Deer Park, Texas 77536

Attn: Kenneth Berss



Authorized for release by:

4/24/2018 11:52:09 AM

Lindy Maingot, Project Manager I

(210)344-9751

LINKS

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

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

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

Definitions/Glossary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-150673-1	LCR001	Water	04/03/18 08:00	04/04/18 09:10
680-150673-2	PBCU001 ELCR	Water	04/03/18 08:00	04/04/18 09:10

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Case Narrative

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Job ID: 680-150673-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative 680-150673-1

Comments

No additional comments.

Receipt

The samples were received on 4/4/2018 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): LCR001 (680-150673-1) and PBCU001 ELCR (680-150673-2). The container labels list <EAST ADMIN ENTRY>, while the COC lists <EAST ADMIN SOURCE>. The client was contacted, and the lab was instructed to <log in per COC>.

HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Client Sample ID: LCR001

Date Collected: 04/03/18 08:00

Date Received: 04/04/18 09:10

Lab Sample ID: 680-150673-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.7		1.0	0.40	mg/L			04/11/18 12:59	1
Chloride	59		2.5	1.0	mg/L			04/11/18 13:12	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.11	J	0.50	0.025	mg/L		04/11/18 09:30	04/12/18 21:17	1
Iron	0.017	U	0.050	0.017	mg/L		04/11/18 09:30	04/12/18 21:17	1
Manganese	0.018		0.010	0.0010	mg/L		04/11/18 09:30	04/12/18 21:17	1
Sodium	130		10	4.8	mg/L		04/11/18 09:30	04/13/18 15:45	10

Method: 2340B-2011 - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	3.3	U	3.3	3.3	mg/L			04/23/18 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	710		5.0	5.0	umho/cm			04/05/18 10:40	1
Alkalinity	270		5.0	5.0	mg/L			04/09/18 17:50	1
Total Dissolved Solids	370		10	10	mg/L			04/07/18 08:28	1

Client Sample ID: PBCU001 ELCR

Date Collected: 04/03/18 08:00

Date Received: 04/04/18 09:10

Lab Sample ID: 680-150673-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.8		1.0	0.40	mg/L			04/11/18 13:25	1
Chloride	67		2.5	1.0	mg/L			04/11/18 13:38	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	14		0.50	0.025	mg/L		04/11/18 09:30	04/12/18 21:22	1
Iron	0.017	U	0.050	0.017	mg/L		04/11/18 09:30	04/12/18 21:22	1
Manganese	0.028		0.010	0.0010	mg/L		04/11/18 09:30	04/12/18 21:22	1
Sodium	120		10	4.8	mg/L		04/11/18 09:30	04/13/18 15:50	10

Method: 2340B-2011 - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	45		3.3	3.3	mg/L			04/23/18 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	660		5.0	5.0	umho/cm			04/05/18 10:41	1
Alkalinity	250		5.0	5.0	mg/L			04/09/18 17:40	1
Total Dissolved Solids	350		10	10	mg/L			04/07/18 08:28	1

TestAmerica Savannah

QC Sample Results

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-519555/2

Matrix: Water

Analysis Batch: 519555

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.40	U	1.0	0.40	mg/L			04/11/18 10:25	1
Chloride	0.20	U	0.50	0.20	mg/L			04/11/18 10:25	1

Lab Sample ID: LCS 680-519555/3

Matrix: Water

Analysis Batch: 519555

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.1		mg/L		101	90 - 110
Chloride	10.0	9.77		mg/L		98	90 - 110

Lab Sample ID: LCSD 680-519555/4

Matrix: Water

Analysis Batch: 519555

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.3		mg/L		103	90 - 110	2	15
Chloride	10.0	9.78		mg/L		98	90 - 110	0	15

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 680-519559/1-A

Matrix: Water

Analysis Batch: 519914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 519559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.025	U	0.50	0.025	mg/L		04/11/18 09:30	04/12/18 20:12	1
Iron	0.017	U	0.050	0.017	mg/L		04/11/18 09:30	04/12/18 20:12	1
Manganese	0.0010	U	0.010	0.0010	mg/L		04/11/18 09:30	04/12/18 20:12	1
Sodium	0.48	U	1.0	0.48	mg/L		04/11/18 09:30	04/12/18 20:12	1

Lab Sample ID: LCS 680-519559/2-A

Matrix: Water

Analysis Batch: 519914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 519559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2.00	1.99		mg/L		99	85 - 115
Iron	2.00	2.01		mg/L		100	85 - 115
Manganese	0.200	0.204		mg/L		102	85 - 115
Sodium	2.00	1.77		mg/L		88	85 - 115

Method: 2340B-2011 - Total Hardness (as CaCO3) by calculation

Lab Sample ID: MB 680-521077/1

Matrix: Water

Analysis Batch: 521077

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	3.3	U	3.3	3.3	mg/L			04/23/18 11:19	1

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QC Sample Results

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Method: 2510B-2011 - Conductivity, Specific Conductance

Lab Sample ID: MB 680-518904/7

Matrix: Water

Analysis Batch: 518904

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	5.0	U	5.0	5.0	umho/cm	-		04/05/18 10:35	1

Lab Sample ID: LCS 680-518904/8

Matrix: Water

Analysis Batch: 518904

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductivity	1000	1010		umho/cm	-	101	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 680-519417/7

Matrix: Water

Analysis Batch: 519417

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	mg/L	-		04/09/18 17:25	1

Lab Sample ID: LCS 680-519417/8

Matrix: Water

Analysis Batch: 519417

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	250	248		mg/L	-	99	80 - 120

Lab Sample ID: LCSD 680-519417/20

Matrix: Water

Analysis Batch: 519417

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	250	250		mg/L	-	100	80 - 120	1	30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 680-519169/1

Matrix: Water

Analysis Batch: 519169

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L	-		04/07/18 08:28	1

Lab Sample ID: LCS 680-519169/2

Matrix: Water

Analysis Batch: 519169

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	68.8	62.0		mg/L	-	90	80 - 120

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QC Sample Results

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 680-519169/3

Matrix: Water

Analysis Batch: 519169

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	68.8	62.0		mg/L	—	90	80 - 120	0	25

QC Association Summary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

HPLC/IC

Analysis Batch: 519555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	300.0	
680-150673-1	LCR001	Total/NA	Water	300.0	
680-150673-2	PBCU001 ELCR	Total/NA	Water	300.0	
680-150673-2	PBCU001 ELCR	Total/NA	Water	300.0	
MB 680-519555/2	Method Blank	Total/NA	Water	300.0	
LCS 680-519555/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-519555/4	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 519559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	200	
680-150673-2	PBCU001 ELCR	Total/NA	Water	200	
MB 680-519559/1-A	Method Blank	Total/NA	Water	200	
LCS 680-519559/2-A	Lab Control Sample	Total/NA	Water	200	

Analysis Batch: 519914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	200.7 Rev 4.4	519559
680-150673-2	PBCU001 ELCR	Total/NA	Water	200.7 Rev 4.4	519559
MB 680-519559/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	519559
LCS 680-519559/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	519559

Analysis Batch: 520147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	200.7 Rev 4.4	519559
680-150673-2	PBCU001 ELCR	Total/NA	Water	200.7 Rev 4.4	519559

Analysis Batch: 521077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	2340B-2011	
680-150673-2	PBCU001 ELCR	Total/NA	Water	2340B-2011	
MB 680-521077/1	Method Blank	Total/NA	Water	2340B-2011	

General Chemistry

Analysis Batch: 518904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	2510B-2011	
680-150673-2	PBCU001 ELCR	Total/NA	Water	2510B-2011	
MB 680-518904/7	Method Blank	Total/NA	Water	2510B-2011	
LCS 680-518904/8	Lab Control Sample	Total/NA	Water	2510B-2011	

Analysis Batch: 519169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	SM 2540C	
680-150673-2	PBCU001 ELCR	Total/NA	Water	SM 2540C	
MB 680-519169/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 680-519169/2	Lab Control Sample	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

General Chemistry (Continued)

Analysis Batch: 519169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-519169/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 519417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-150673-1	LCR001	Total/NA	Water	SM 2320B	
680-150673-2	PBCU001 ELCR	Total/NA	Water	SM 2320B	
MB 680-519417/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 680-519417/8	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 680-519417/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Client Sample ID: LCR001

Date Collected: 04/03/18 08:00

Date Received: 04/04/18 09:10

Lab Sample ID: 680-150673-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	519555	04/11/18 12:59	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0		5	5 mL	5 mL	519555	04/11/18 13:12	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	200			50 mL	50 mL	519559	04/11/18 09:30	AJR	TAL SAV
Total/NA	Analysis	200.7 Rev 4.4		1			519914	04/12/18 21:17	BCB	TAL SAV
	Instrument ID: ICPF									
Total/NA	Prep	200			50 mL	50 mL	519559	04/11/18 09:30	AJR	TAL SAV
Total/NA	Analysis	200.7 Rev 4.4		10			520147	04/13/18 15:45	BCB	TAL SAV
	Instrument ID: ICPF									
Total/NA	Analysis	2340B-2011		1			521077	04/23/18 16:10	RSW	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	2510B-2011		1			518904	04/05/18 10:40	JEC	TAL SAV
	Instrument ID: MANTECH									
Total/NA	Analysis	SM 2320B		1			519417	04/09/18 17:50	BTD	TAL SAV
	Instrument ID: MANTECH									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	519169	04/07/18 08:28	JEC	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: PBCU001 ELCR

Date Collected: 04/03/18 08:00

Date Received: 04/04/18 09:10

Lab Sample ID: 680-150673-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	519555	04/11/18 13:25	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0		5	5 mL	5 mL	519555	04/11/18 13:38	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	200			50 mL	50 mL	519559	04/11/18 09:30	AJR	TAL SAV
Total/NA	Analysis	200.7 Rev 4.4		1			519914	04/12/18 21:22	BCB	TAL SAV
	Instrument ID: ICPF									
Total/NA	Prep	200			50 mL	50 mL	519559	04/11/18 09:30	AJR	TAL SAV
Total/NA	Analysis	200.7 Rev 4.4		10			520147	04/13/18 15:50	BCB	TAL SAV
	Instrument ID: ICPF									
Total/NA	Analysis	2340B-2011		1			521077	04/23/18 16:10	RSW	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	2510B-2011		1			518904	04/05/18 10:41	JEC	TAL SAV
	Instrument ID: MANTECH									
Total/NA	Analysis	SM 2320B		1			519417	04/09/18 17:40	BTD	TAL SAV
	Instrument ID: MANTECH									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	519169	04/07/18 08:28	JEC	TAL SAV
	Instrument ID: NOEQUIP									

TestAmerica Savannah

Lab Chronicle

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Accreditation/Certification Summary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	09-22-19
Arizona	State Program	9	AZ0808	12-14-18
Arkansas DEQ	State Program	6	88-0692	02-01-19
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-18
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-18
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-18
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-19
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-18
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-18
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-17-00213	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia (DW)	State Program	3	9950C	12-31-18
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

Method Summary

Client: Lubrizol Advanced Materials, Inc
Project/Site: Primary & Secondary Drinking Water

TestAmerica Job ID: 680-150673-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL SAV
2340B-2011	Total Hardness (as CaCO3) by calculation	SM	TAL SAV
2510B-2011	Conductivity, Specific Conductance	SM	TAL SAV
SM 2320B	Alkalinity	SM	TAL SAV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SAV
200	Preparation, Metals	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



WATER QUALITY PARAMETER CHAIN OF CUSTODY FORM 20679

6800-150673

Section I (PWS Information)										Section II (Completed by Laboratory)										
PWS Name: <u>Wagon + PWS ENG. 13216</u>					PWS Type: <input type="checkbox"/> Community <input type="checkbox"/> NTNC					Lab Name:										
PWS ID #: <u>1012912</u>					Population: <input type="checkbox"/> <50,000 <input type="checkbox"/> 50,001 to 100,000 <input type="checkbox"/> >100,000					Test America Sewer										
PWS Contact Name: <u>DUSTY LUCAS</u>					Tap Copper Exceedance <input type="checkbox"/> Tap Lead Exceedance <input type="checkbox"/>					Laboratory Address: <u>5102 Ls Roche Ave.</u>										
<input type="checkbox"/> Compliance <input type="checkbox"/> Noncompliance					# DS Samples Required: <input type="checkbox"/> Tap Copper Exceedance <input type="checkbox"/> Tap Lead Exceedance <input type="checkbox"/>					Laboratory Contact Name:										
<input type="checkbox"/> Distribution System					# EP Samples Required: <input type="checkbox"/> Tap Copper Exceedance <input type="checkbox"/> Tap Lead Exceedance <input type="checkbox"/>					Bernard Kishland										
<input type="checkbox"/> Entry Point					# EP Samples Required: <input type="checkbox"/> Tap Copper Exceedance <input type="checkbox"/> Tap Lead Exceedance <input type="checkbox"/>					Parameters Requested: *Analyses are required for the parameters checked. If inhibitors containing PO4 or silicate are used, then these parameters should also be tested depending on which is used.										
Inhibitor or stabilizer used: <input type="checkbox"/> phosphate <input type="checkbox"/> calcium carbonate <input type="checkbox"/> silica										Lab Phone: <u>912-351-7858</u>										
Source ID (e.g. DS01, EP001)	Sample Location	Sample Collection Date (MMDDYY)	Sample Collection Time (HHMM)	pH (1925)	pH method	Temp (°C) (1996)	Temp Method	Lab Sample ID	Alkalinity (1927)	Calcium (1919)	Chloride (1017)	Conductivity (1064)	Hardness (1915)	Iron (1028)	Manganese (1032)	Sodium (1052)	Sulfate (1055)	TDS (1930)	O-phosphate (1044)	Silica (1049)
LOR001	EAST ADMIN DIST	4-3-18	0800	7		74.6		6800-150673-2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PRC001	EAST ADMIN SOURCE	4-3-18	0800	7		74.6		6800-150673-1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ELCR									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
I acknowledge that the information on this form is true and correct and sites selected for sampling following TCEQ instructions including but not limited to the measurement of pH and temperature according to approved methods immediately upon collection (within 15 minutes)																				
Name: <u>DUSTY LUCAS</u> Signature: <u>[Signature]</u> Date: <u>4-3-18</u>										Containers: <input type="checkbox"/> 2 L plastic bottles <input type="checkbox"/> 1 L preserved upon receipt										
Relinquished By (Name, Signature): <u>DUSTY LUCAS</u> Date: <u>4-3-18</u> Time: <u>0800</u>										Conditions Upon Receipt: <input checked="" type="checkbox"/> Ice <input type="checkbox"/> Ambient										
Altan Savits										Temp Upon Receipt: <u>0.4</u>										
										Corrected Temp Upon Receipt: <u>0.5</u>										
										Comments: <u>0.1021</u>										
Received By (Name, Signature): <u>Altan Savits</u> Date: <u>4-3-18</u> Time: <u>11:24</u>																				
(For TCEQ use only) <input type="checkbox"/> Disapproved <input type="checkbox"/> Accepted Comments:																				

Login Sample Receipt Checklist

Client: Lubrizol Advanced Materials, Inc

Job Number: 680-150673-1

Login Number: 150673

List Number: 1

Creator: Edwards, Jessica R

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	