CERTIFICATE OF ANALYSIS

Bill Descoteaux
Town of North Smithfield
P.O. Box 248
Slatersville, RI 02876

RE: Copper Lead Rule (N/A)
ESS Laboratory Work Order Number: 23I0282

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 3:14 pm, Sep 19, 2023

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0282

SAMPLE RECEIPT

The following samples were received on September 12, 2023 for the analyses specified on the enclosed Chain of Custody Record.

The cooler temperature was not within the acceptance limit of <6°C, however, samples were delivered on ice and therefore meet regulatory criteria.

Lab Number	Sample Name	Matrix	Analysis
23I0282-01	32 McCann St	Drinking Water	200.7, 200.8
23I0282-02	33 Pacheco	Drinking Water	200.7, 200.8
23I0282-03	36 Pacheco	Drinking Water	200.7, 200.8
23I0282-04	14 Park view	Drinking Water	200.7, 200.8

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310282

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310282

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 32 McCann St
Date Sampled: 09/12/23 06:35
Percent Solids: N/A

ESS Laboratory Work Order: 2310282
ESS Laboratory Sample ID: 2310282-01
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.031** (0.010)	0.003	200.7		1	CEV	09/13/23 17:11	50	25	DI31314
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/13/23 17:33	50	25	DI31314

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 33 Pacheco
Date Sampled: 09/12/23 06:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0282
ESS Laboratory Sample ID: 23I0282-02
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.024** (0.010)	0.003	200.7		1	CEV	09/13/23 17:23	50	25	DI31314
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/13/23 18:13	50	25	DI31314

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 36 Pacheco
Date Sampled: 09/12/23 05:15
Percent Solids: N/A

ESS Laboratory Work Order: 2310282
ESS Laboratory Sample ID: 2310282-03
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.026** (0.010)	0.003	200.7		1	CEV	09/13/23 17:42	50	25	DI31314
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/13/23 18:41	50	25	DI31314

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 14 Park view
Date Sampled: 09/12/23 06:30
Percent Solids: N/A

ESS Laboratory Work Order: 23I0282
ESS Laboratory Sample ID: 23I0282-04
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.019** (0.010)	0.003	200.7		1	CEV	09/13/23 17:44	50	25	DI31314
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/13/23 18:47	50	25	DI31314

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310282

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
				Total Metals						
Batch DI31314 - 3005A/200.7										
Blank										
Copper	ND	0.010	mg/L							
Blank										
Lead	ND	0.0025	mg/L							
LCS										
Copper	0.252	0.010	mg/L	0.2500		101	85-115			
LCS										
Lead	0.260	0.0250	mg/L	0.2500		104	85-115			

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0282

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probable Number
TNTC	Too numerous to Count
CFU	Colony Forming Units

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0282

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

Pennsylvania: 68-01752
http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Town of North Smithfield - BAL

Shipped/Delivered Via: Client

ESS Project ID: 2310282
Date Received: 9/12/2023
Project Due Date: 9/19/2023
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 17.5 Iced with: Ice Pack
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. Were labs informed about short holds & rushes? Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: 9/12/23 Time: 11:21 By/Acid Lot#: 310908
    b. Low Level VOA vials frozen: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Resolution:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	471999	Yes	N/A	Yes	1L Poly	HNO3	
2	472000	Yes	N/A	Yes	1L Poly	HNO3	
3	472001	Yes	N/A	Yes	1L Poly	HNO3	
4	472002	Yes	N/A	Yes	1L Poly	HNO3	

2nd Review

Were all containers scanned into storage/lab? Initials: [illegible] (Yes) / No
Are barcode labels on correct containers? Yes / No / NA
Are all Flashpoint stickers attached/container ID # circled? Yes / No / NA
Are all Hex Chrome stickers attached? Yes / No / NA
Are all QC stickers attached? Yes / No / NA
Are VOA stickers attached if bubbles noted? Yes / No / NA

Completed By: [signature] Date & Time: 9/12/23 11:21
Reviewed By: [signature] Date & Time: 9/12/23 1127

ESS LABORATORY

185 Frances Avenue
Cranston, RI 02910
Phone: 401-461-7181
[redacted]
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 230282 | Page 1 of 1

Turn Time (Days): ☒ 5 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day

Regulatory State: RI Criteria:

Is this project for any of the following?: ☐ CT RCP ☐ MA MCP ☐ RGP ☐ Permit ☐ 401 WQ

ELECTRONIC DELIVERABLES (Final Reports are PDF)
☐ Limit Checker ☑ State Forms ☐ EQuIS
☐ Excel ☑ State Upload ☐ Enviro Data
☐ CLP-Like Package ☐ Other (Specify) →

CLIENT INFORMATION

Client: Town of North Smithfield
Address: 83 Green St
North Smithfield RI 02896
Phone: 401 767 2205 Ext. 305
Email WDescoteaux@nsmithfield.org
Distribution List:

PROJECT INFORMATION

Project Name: 2023 Lead + Copper
Project Location:
Project Number:
Project Manager:
Bill to: Same
PO#:
Quote#:

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Lead + Copper	Total Number of Bottles
1	9/12/23	6:35 PM	Grab	DW	32 McCann St	✓	
2	9/12/23	6:00 PM	Grab	DW	53 Pacheco	✓	
3	9/12/23	5:15 PM	Grab	DW	36 Pacheco	✓	
4	9/12/23	6:30 PM	Grab	DW	14 Park View	✓	

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial — P
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other* — 6
Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAcc, NaOH 9-NH4Cl 10-DI H2O 11-Other* — 1

Sampled by :

Chain needs to be filled out neatly and completely for on time delivery.

Laboratory Use Only
Cooler Temperature (°C): 17.5 3.2 IC

Comments: * Please specify "Other" preservative and containers types in this space

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration
☐ Lab Filter

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	9/12/23	10:23 AM					

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)

CERTIFICATE OF ANALYSIS

Bill Descoteaux
Town of North Smithfield
P.O. Box 248
Slatersville, RI 02876

RE: Copper Lead Rule (N/A)
ESS Laboratory Work Order Number: 23I0509

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:50 pm, Sep 25, 2023

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0509

SAMPLE RECEIPT

The following samples were received on September 18, 2023 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
23I0509-01	30 Pacheco	Drinking Water	200.7, 200.8
23I0509-02	88 North Main	Drinking Water	200.7, 200.8
23I0509-03	62 Main	Drinking Water	200.7, 200.8
23I0509-04	187 School	Drinking Water	200.7, 200.8
23I0509-05	1 Halliwell	Drinking Water	200.7, 200.8
23I0509-06	1 Roselawn	Drinking Water	200.7, 200.8
23I0509-07	31 Tifft	Drinking Water	200.7, 200.8
23I0509-08	95 Main	Drinking Water	200.7, 200.8
23I0509-09	75 Main	Drinking Water	200.7, 200.8
23I0509-10	51 Main	Drinking Water	200.7, 200.8
23I0509-11	22 Maple	Drinking Water	200.7, 200.8
23I0509-12	24 Green	Drinking Water	200.7, 200.8

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0509

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

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Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0509

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 30 Pacheco
Date Sampled: 09/16/23 06:21
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-01
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**J 0.015** (0.020)	0.006	200.7		1	CEV	09/20/23 13:54	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 12:57	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 88 North Main
Date Sampled: 09/14/23 08:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-02
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.023** (0.020)	0.006	200.7		1	CEV	09/20/23 14:03	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:03	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 62 Main
Date Sampled: 09/14/23 05:45
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-03
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.021** (0.020)	0.006	200.7		1	CEV	09/20/23 14:06	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:09	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 187 School
Date Sampled: 09/13/23 06:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-04
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**J 0.011** (0.020)	0.006	200.7		1	CEV	09/20/23 14:08	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:14	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 1 Halliwell
Date Sampled: 09/13/23 03:35
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-05
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**J 0.017** (0.020)	0.006	200.7		1	CEV	09/20/23 14:11	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:20	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 1 Roselawn
Date Sampled: 09/14/23 06:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-06
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.043** (0.020)	0.006	200.7		1	CEV	09/20/23 14:13	10	10	DI31834
Lead	**0.0374** (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:26	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 31 Tifft
Date Sampled: 09/13/23 05:15
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-07
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**J 0.009** (0.020)	0.006	200.7		1	CEV	09/20/23 14:16	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:31	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 95 Main
Date Sampled: 09/14/23 05:30
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-08
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.058** (0.020)	0.006	200.7		1	CEV	09/20/23 14:19	10	10	DI31834
Lead	**0.0016** (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:48	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 75 Main
Date Sampled: 09/15/23 05:34
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-09
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.021** (0.020)	0.006	200.7		1	CEV	09/20/23 14:21	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:54	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 51 Main
Date Sampled: 09/14/23 06:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-10
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.048** (0.020)	0.006	200.7		1	CEV	09/20/23 14:24	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 13:59	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 22 Maple
Date Sampled: 09/16/23 06:30
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-11
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.105** (0.020)	0.006	200.7		1	CEV	09/20/23 14:26	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 14:05	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 24 Green
Date Sampled: 09/16/23 07:00
Percent Solids: N/A

ESS Laboratory Work Order: 23I0509
ESS Laboratory Sample ID: 23I0509-12
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 200.7/6010BNoDigest

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.052** (0.020)	0.006	200.7		1	CEV	09/20/23 14:35	10	10	DI31834
Lead	ND (0.0010)	0.0002	200.8		1	BJV	09/20/23 14:11	10	10	DI31834

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0509

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch DI31834 - 200.7/6010BNoDigest										
Blank										
Copper	ND	0.020	mg/L							
Blank										
Lead	ND	0.0010	mg/L							
LCS										
Copper	0.498		mg/L	0.5000		100	85-115			
LCS										
Lead	10.0		ug/L	9.990		100	85-115			

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310509

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probable Number
TNTC	Too numerous to Count
CFU	Colony Forming Units

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0509

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

Pennsylvania: 68-01752
http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Town of North Smithfield - BAL

Shipped/Delivered Via: Client

ESS Project ID: 2310509
Date Received: 9/18/2023
Project Due Date: 9/25/2023
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 2.1 Iced with: Ice Pack
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? (Yes) / No
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: 9/18/23 Time: 11:40 By/Acid Lot#: e 310806
    b. Low Level VOA vials frozen: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / No
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Resolution:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	474111	Yes	N/A	Yes	1L Poly	HNO3	
2	474112	Yes	N/A	Yes	1L Poly	HNO3	
3	474113	Yes	N/A	Yes	1L Poly	HNO3	
4	474114	Yes	N/A	Yes	1L Poly	HNO3	
5	474115	Yes	N/A	Yes	1L Poly	HNO3	
6	474116	Yes	N/A	Yes	1L Poly	HNO3	
7	474117	Yes	N/A	Yes	1L Poly	HNO3	
8	474118	Yes	N/A	Yes	1L Poly	HNO3	
9	474119	Yes	N/A	Yes	1L Poly	HNO3	
10	474120	Yes	N/A	Yes	1L Poly	HNO3	
11	474121	Yes	N/A	Yes	1L Poly	HNO3	
12	474127	Yes	N/A	Yes	1L Poly	HNO3	

2nd Review
Were all containers scanned into storage/lab? Initials
Are barcode labels on correct containers? (Yes) / No
Are all Flashpoint stickers attached/container ID # circled? Yes / No / (NA)

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Town of North Smithfield - BAL

ESS Project ID: 23I0509

Date Received: 9/18/2023

Are all Hex Chrome stickers attached? Yes / No / (NA)

Are all QC stickers attached? (Yes) / No / NA

Are VOA stickers attached if bubbles noted? Yes / No / (NA)

Completed By: [signature] Date & Time: 9/18/23 11:49

Reviewed By: [signature] Date & Time: 9/18/23 13:06

185 Frances Avenue
Cranston, RI 02910
Phone: 401-461-7181
[redacted]
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 231059 | Page 1 of 1

Turn Time (Days): ☑ 5 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day

Regulatory State: RI Criteria:

Is this project for any of the following?: ☐ CT RCP ☐ MA MCP ☐ RGP ☐ Permit ☐ 401 WQ

ELECTRONIC DELIVERABLES (Final Reports are PDF)
☐ Limit Checker ☑ State Forms ☐ EQuIS
☐ Excel ☑ State Upload ☐ Enviro Data
☐ CLP-Like Package ☐ Other (Specify) →

CLIENT INFORMATION

Client: Town of North Smithfield
Address: 83 Green St
North Smithfield RI 02896
Phone: 401 767 2200 Ext. 305
Email: WDescoteaux@nsmithfield.org
Distribution List:

PROJECT INFORMATION

Project Name: 2023 Lead + Copper
Project Location:
Project Number:
Project Manager:
Bill to: Same
PO#:
Quote#:

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Lead + Copper	Total Number of Bottles
1	9-16-23	6:21 PM	Grab	DW	30 Pacheco	✓	1
2	9-14-23	8:00 AM	Grab	DW	88 North Main	✓	1
3	9-14-23	5:45 PM	Grab	DW	62 Main	✓	1
4	9-13-23	6:00 PM	Grab	DW	187 School	✓	1
5	9-13-23	3:35 PM	Grab	DW	1 Hallowell	✓	1
6	9-14-23	6:00 PM	Grab	DW	1 Roselawn	✓	1
7	9-13-23	5:15 PM	Grab	DW	31 Tifft	✓	1
8	9-14-23	5:30 PM	Grab	DW	95 Main	✓	1
9	9-15-23	5:34 PM	Grab	DW	75 Main	✓	1
10	9-14-23	6:00 PM	Grab	DW	51 Main	✓	1
	Container Type:	AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial				P	
	Container Volume:	1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other*				6	
	Preservation Code:	1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other*				1	

Sampled by :

Chain needs to be filled out neatly and completely for on time delivery.

Laboratory Use Only
Cooler Temperature (°C): 2.1 blue ice

Comments: * Please specify "Other" preservative and containers types in this space

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration
☐ Lab Filter

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	9/18/23	10:23 AM	[signature]				

CHAIN OF CUSTODY

185 Frances Avenue
Cranston, RI 02910
Phone: 401-461-7181
[redacted]
www.esslaboratory.com

ESS Lab # 23D509 | Page 1 of 1

Turn Time (Days): ☒ 5 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day

Regulatory State: RI Criteria:

Is this project for any of the following?:

☐ CT RCP ☐ MA MCP ☐ RGP ☐ Permit ☐ 401 WQ

ELECTRONIC DELIVERABLES (Final Reports are PDF)

☐ Limit Checker ☑ State Forms ☐ EQuIS
☐ Excel ☑ State Upload ☐ Enviro Data
☐ CLP-Like Package ☐ Other (Specify) →

CLIENT INFORMATION

Client: Town of North Smithfield
Address: 83 Green St
North Smithfield RI 02896
Phone: 401 767 2200 Ext. 305
Email: WDescoteaux@nsmithfield.org
Distribution List:

PROJECT INFORMATION

Project Name: 2023 Lead + Copper
Project Location:
Project Number:
Project Manager:
Bill to: Same
PO#:
Quote#:

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Lead + Copper	Total Number of Bottles
11	9-16-23	6:30 Am	Grab	DW	22 Maple	✓	1
12	9-16-23	7:00 Am	Grab	DW	24 Green	✓	1

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial — P

Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other* — 6

Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other* — 1

Sampled by :

Chain needs to be filled out neatly and completely for on time delivery.

Laboratory Use Only

Cooler Temperature (°C): 2.1 blank

Comments: * Please specify "Other" preservative and containers types in this space

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration: ☐ Lab Filter

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	9/18/23	10:23 Am	[signature]				
Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)

CERTIFICATE OF ANALYSIS

Bill Descoteaux
Town of North Smithfield
P.O. Box 248
Slatersville, RI 02876

RE: Copper Lead Rule (N/A)
ESS Laboratory Work Order Number: 23I0665

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 6:07 pm, Sep 28, 2023

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0665

SAMPLE RECEIPT

The following samples were received on September 21, 2023 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
23I0665-01	4 Country Way	Drinking Water	200.7, 200.8
23I0665-02	164 Green	Drinking Water	200.7, 200.8
23I0665-03	160 Green	Drinking Water	200.7, 200.8
23I0665-04	173 B- School	Drinking Water	200.7, 200.8

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0665

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0665

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 4 Country Way
Date Sampled: 09/20/23 07:45
Percent Solids: N/A

ESS Laboratory Work Order: 23I0665
ESS Laboratory Sample ID: 23I0665-01
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.028** (0.010)	0.003	200.7		1	CEV	09/25/23 18:34	50	25	DI32218
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/25/23 15:44	50	25	DI32218

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 164 Green
Date Sampled: 09/20/23 08:45
Percent Solids: N/A

ESS Laboratory Work Order: 23I0665
ESS Laboratory Sample ID: 23I0665-02
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.048** (0.010)	0.003	200.7		1	CEV	09/25/23 18:36	50	25	DI32218
Lead	**J 0.0007** (0.0025)	0.0005	200.8		5	BJV	09/25/23 15:50	50	25	DI32218

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 160 Green
Date Sampled: 09/20/23 08:20
Percent Solids: N/A

ESS Laboratory Work Order: 23I0665
ESS Laboratory Sample ID: 23I0665-03
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**0.038** (0.010)	0.003	200.7		1	CEV	09/25/23 18:39	50	25	DI32218
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/25/23 15:55	50	25	DI32218

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule
Client Sample ID: 173 B- School
Date Sampled: 09/20/23 06:30
Percent Solids: N/A

ESS Laboratory Work Order: 23I0665
ESS Laboratory Sample ID: 23I0665-04
Sample Matrix: Drinking Water
Units: mg/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Copper	**J 0.006** (0.010)	0.003	200.7		1	CEV	09/25/23 18:41	50	25	DI32218
Lead	ND (0.0025)	0.0005	200.8		5	BJV	09/25/23 16:01	50	25	DI32218

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 23I0665

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch DI32218 - 3005A/200.7										
Blank										
Copper	ND	0.010	mg/L							
Blank										
Lead	ND	0.0025	mg/L							,
LCS										
Copper	0.280	0.010	mg/L	0.2500		112	85-115			
LCS										
Lead	0.286	0.0250	mg/L	0.2500		114	85-115			

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310665

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probable Number
TNTC	Too numerous to Count
CFU	Colony Forming Units

CERTIFICATE OF ANALYSIS

Client Name: Town of North Smithfield
Client Project ID: Copper Lead Rule

ESS Laboratory Work Order: 2310665

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

Pennsylvania: 68-01752
http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Town of North Smithfield - BAL

Shipped/Delivered Via: ~~ESS Courier~~ Client 9/21/23

ESS Project ID: 2310665
Date Received: 9/21/2023
Project Due Date: 9/28/2023
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 5.9 Iced with: Ice Pack
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / (No)
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: 9/21/23 Time: 1140 By/Acid Lot#: TD - 310800 03
    b. Low Level VOA vials frozen: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted: Date: Time: By:

Resolution:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	475657	Yes	N/A	Yes	1L Poly	HNO3	
2	475658	Yes	N/A	Yes	1L Poly	HNO3	
3	475659	Yes	N/A	Yes	1L Poly	HNO3	
4	475660	Yes	N/A	Yes	1L Poly	HNO3	

2nd Review
Were all containers scanned into storage/lab? Initials TD
Are barcode labels on correct containers? (Yes) / No
Are all Flashpoint stickers attached/container ID # circled? Yes / No / (NA)
Are all Hex Chrome stickers attached? Yes / No / (NA)
Are all QC stickers attached? Yes / No / (NA)
Are VOA stickers attached if bubbles noted? Yes / No / (NA)

Completed By: Taylor Davis Date & Time: 9/21/23. 1145.
Reviewed By: Date & Time: 9/21/23 1328

185 Frances Avenue
Cranston, RI 02910
Phone: 401-461-7181
[redacted]
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 23100405 · Page 1 of 1

Turn Time (Days): ☑ 5 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day

Regulatory State: RI Criteria:

Is this project for any of the following?: ☐ CT RCP ☐ MA MCP ☐ RGP ☐ Permit ☐ 401 WQ

ELECTRONIC DELIVERABLES (Final Reports are PDF)

☐ Limit Checker ☑ State Forms ☐ EQuIS
☐ Excel ☑ State Upload ☐ Enviro Data
☐ CLP-Like Package ☐ Other (Specify) →

CLIENT INFORMATION

Client: Town of North Smithfield
Address: 83 Green St
North Smithfield RI 02896
Phone: 401 767 2200 Ext. 305
Email WDescoteaux@nsmithfield.org
Distribution List:

PROJECT INFORMATION

Project Name: 2023 Lead + Copper
Project Location:
Project Number:
Project Manager:
Bill to: Same
PO#:
Quote#:

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Lead + Copper	Total Number of Bottles
1	9-20-23	7:45 Am	Grab	DW	4 COUNTRY	1	1
2	9-20-23	8:45 Am	Grab	DW	164 Green	1	1
3	9-20-23	8:20 Am	Grab	DW	160 Green	1	1
4	9-20-23	6:30 Am	Grab	DW	173 B - School	1	1

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial — P
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other* — 6
Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other* — 1

Sampled by :

Chain needs to be filled out neatly and completely for on time delivery.

Laboratory Use Only

Cooler Temperature (°C): 5.9 CDK

Comments: * Please specify "Other" preservative and containers types in this space

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration ☐ Lab Filter

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	9/21/23	11:31	[signature]				
Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)