

**REPORT OF DRINKING WATER SAMPLING FOR
LEAD CONTENT:**

Lone Star Rangers

RIPLEY COUNTY

R-IV SCHOOL

PREPARED FOR:

**RIPLEY COUNTY R-IV SCHOOL
DISTRICT 3277 US HIGHWAY 160
WEST
DONIPHAN, MO 63935-8901**

PREPARED BY:

**SEMO COMPLIANCE & REMEDIATION
3349 COUNTY ROAD 484
POPLAR BLUFF, MO 63901**

DECEMBER 2023

DOCUMENT TO BE RETAINED INDEFINITELY

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Drinking Water Sampling for Lead
Ripley County R-IV School District
3277 US Highway 160 W Doniphan,
MO 63935

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EXECUTIVE SUMMARY

SEMO COMPLIANCE performed lead testing of multiple drinking fountain water sources at the Campus of Ripley County R-IV located at 3277 US HIGHWAY 160 WEST in Doniphan, Missouri. The sampling was performed by trained and licensed personnel in accordance with USEPA, HUD, and State of Missouri Regulations and Guidelines.

All inspectors involved with sampling activities had EPA-approved training in Lead. Credentials for our firm and the inspector collecting the samples are included in Attachment C to this document.

All samples were collected on a “first draw” basis. “First draw” is achieved by allowing the water system to rest for at least eight hours prior to sampling in order to collect any existing debris or settlement within the sample. The intent of this sampling is to replicate “worst-case scenario” conditions. As such, ENPAQ inspectors met at the school to collect water samples before the systems were used by staff or students. The sampling was completed in accordance with the Missouri SB681 *Get the Lead Out of Schools Drinking Water Act* requirements. The Missouri SB681 *Get the Lead Out of Schools Drinking Water Act*.

Drinking water samples were collected from seventeen (17) different locations throughout Ripley County R-IV Campus during the sampling event. The water samples were collected from drinking fountains utilized for drinking activities at the campus. After sample collection, samples were immediately delivered to Teklab, Inc. located in Collinsville, Illinois following strict chain of custody procedures. Teklab is a NELAP-accredited and State of Missouri-licensed laboratory specializing in drinking water analysis. Detailed sampling locations and sample results are located in Attachment A and Attachment B of this report.

Any samples reported over 5.0 ppb should be re-sampled on an annual basis at a minimum.

CONCLUSION/RECOMMENDATIONS

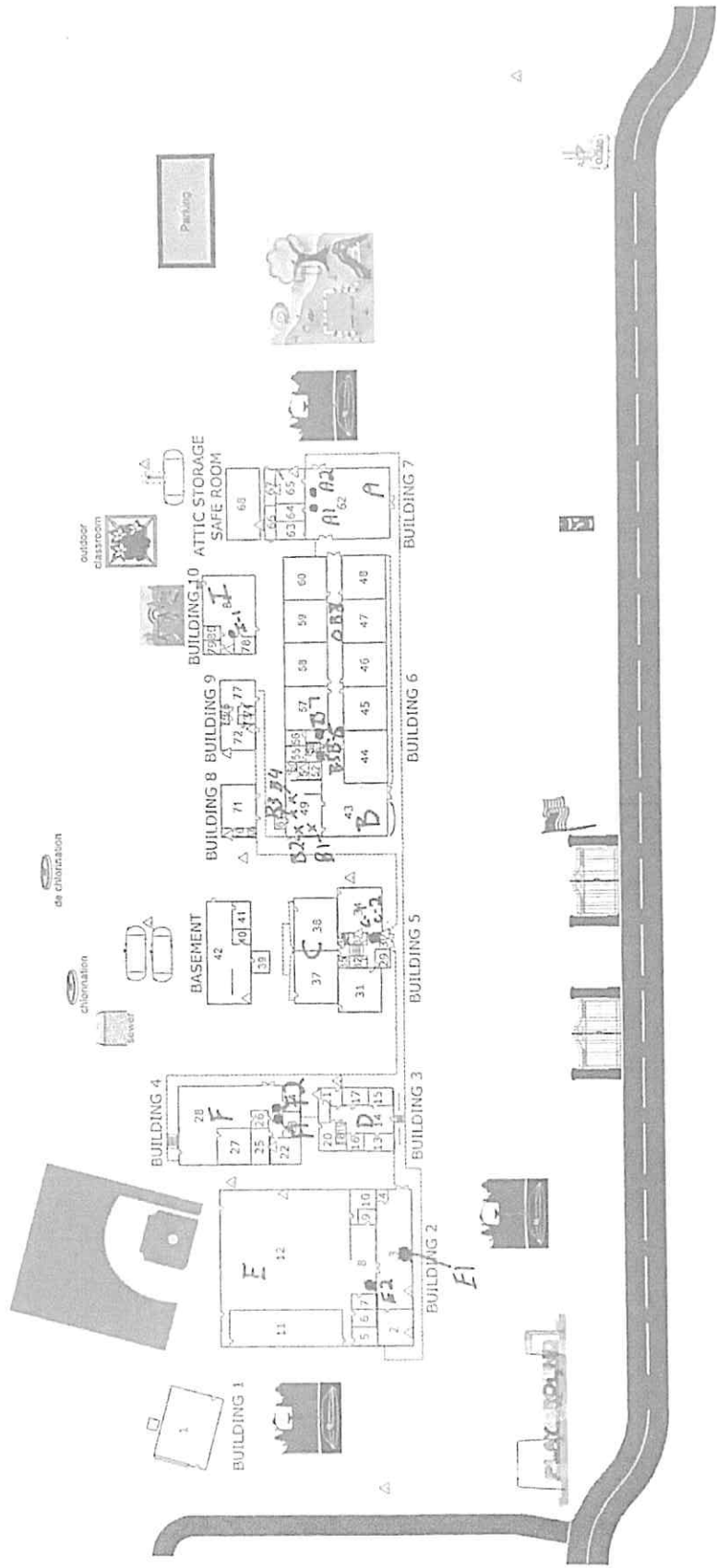
At this time, Semo Compliance recommends that all water sources testing at 5.0 ppb or above be removed from service. These sources are subject to additional maintenance activities and remediation prior to use. Before being put back into service, it is recommended these sources be re-tested to confirm compliance with acceptable levels. **The initial testing did not locate any water sources above the recommended level.**

Although remediation is not required since all water sources are within the recommended levels, remediation would include decreasing lead concentrations below 5 parts per billion using methods such as replacement of plumbing, solder, fittings, or fixtures, installation of filters and filter devices, or other effective methods in accordance with Missouri SB681 *Get the Lead Out of Schools Drinking Water Act*.

Any sources above the recommended level will be subject to an ongoing maintenance program and re-testing at appropriate intervals. Any samples reported over 5.0 ppb should be re-sampled on an annual basis at a minimum. The testing did not locate any water sources above the recommended level and will not require re-testing.

Although no samples were identified above the action level, Semo Compliance recommends that all water sources run for at least thirty seconds prior to use as recommended by the USEPA.

APPENDIX A
SAMPLE LOCATION MAPPING



APPENDIX B
LABORATORY ANALYSIS

December 04, 2023

Matt Marshall
Semo Compliance & Remediation
3349 County Road 484
Poplar Bluff, MO 63901
TEL: (574) 718-9812
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Lonestar

WorkOrder: 23111632

Dear Matt Marshall:

TEKLAB, INC received 17 samples on 11/21/2023 10:20:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley
Project Manager
(618)344-1004 ex 44
patrickriley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

This reporting package includes the following:

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Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

Cooler Receipt Temp: N/A °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)									
Lead									
23111632-001A	A-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:37	11/17/2023 8:35
23111632-002A	A-2	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:33	11/17/2023 8:37
23111632-003A	B-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:30	11/17/2023 8:10
23111632-004A	B-2	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:15	11/17/2023 8:12
23111632-005A	B-3	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:11	11/17/2023 8:14
23111632-006A	B-4	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 16:00	11/17/2023 8:16
23111632-007A	B-5	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:57	11/17/2023 8:20
23111632-008A	B-6	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:53	11/17/2023 8:22
23111632-009A	B-7	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:49	11/17/2023 8:25
23111632-010A	B-8	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:46	11/17/2023 8:27
23111632-011A	C-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:42	11/17/2023 8:53
23111632-012A	C-2	NELAP		1.0	1.1	µg/L	1	11/29/2023 15:27	11/17/2023 8:55
23111632-013A	E-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:24	11/17/2023 8:51
23111632-014A	E-2	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:20	11/17/2023 8:49
23111632-015A	F-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:16	11/17/2023 8:43
23111632-016A	F-2	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:05	11/17/2023 8:45
23111632-017A	I-1	NELAP		1.0	< 1.0	µg/L	1	11/29/2023 15:02	11/17/2023 8:39



Receiving Check List

<http://www.teklabinc.com/>

Client: Semo Compliance & Remediation

Work Order: 23111632

Client Project: Lonestar

Report Date: 04-Dec-23

Carrier: UPS

Received By: LM

Completed by:

Amber Dilallo

Reviewed by:

Ellie Hopkins

On:

21-Nov-23

Amber Dilallo

On:

21-Nov-23

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|--|------------------------------|--|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C N/A |
| Type of thermal preservation? | None <input checked="" type="checkbox"/> | Ice <input type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input type="checkbox"/> | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|---|-----------------------------|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

Samples were checked for turbidity and then preserved with nitric acid upon arrival in the laboratory. - amberdilallo - 11/21/2023 11:38:19 AM

CHAIN OF CUSTODY

pg. of Work order # 23111632

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client: Semo Compliance & Remediation

Address: 3349 County Road 484

City / State / Zip: Poplar Bluff, MO 63901

Contact: Matt Marshall

E-Mail: mattmarshall1986@gmail.com

Phone: 573-718-7812

Fax:

Are these samples known to be involved in litigation? If yes, a surcharge will apply Yes No
 Are these samples known to be hazardous? If yes, include details of the hazard. Yes No
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. Yes No

Samples on: ICE BLUE ICE NO ICE N/A °C N/A LTG#

Preserved in: LAB FIELD **FOR LAB USE ONLY**

Lab Notes

Client Comments:

Project Name/Number: LoneStar

Sample Collector's Name: Matt Marshall

Results Requested:
 Standard 1-2 Day (100% Surcharge)
 Other 3 Day (50% Surcharge)

Billing Instructions

and Type of Containers:
 OTHER
 NaHSO4
 MeOH
 HCL
 H2SO4
 NaOH
 HNO3
 UNPRES

Lab Use Only: 23111632

Sample Identification: A-1

Date/Time Sampled: 11-17-23 8:35 AM

Sample Identification: A-2

Date/Time Sampled: 11-17-23 8:37 AM

Sample Identification: B-1

Date/Time Sampled: 11-17-23 8:10 AM

Sample Identification: B-2

Date/Time Sampled: 11-17-23 8:12 AM

Sample Identification: B-3

Date/Time Sampled: 11-17-23 8:19 AM

Sample Identification: B-4

Date/Time Sampled: 11-17-23 8:16 AM

Sample Identification: B-5

Date/Time Sampled: 11-17-23 8:20 AM

Sample Identification: B-6

Date/Time Sampled: 11-17-23 8:22 AM

Sample Identification: B-7

Date/Time Sampled: 11-17-23 8:25 AM

Sample Identification: B-8

Date/Time Sampled: 11-17-23 8:27 AM

MATRIX:

MATRIX	INDICATE ANALYSIS REQUESTED
Drinking Water	X
Soil	X
Sludge	X
Special Waste	X
Groundwater	X
DW Lead	X

Relinquished By: Matt Marshall

Relinquished By	Date/Time
Matt Marshall	11-20-23 / 12:00 PM

Received By: JAMES UPS

Received By	Date/Time
JAMES UPS	11/21/23 1:02P

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.



Bottle Order: 84328

CHAIN OF CUSTODY

pg. 23 of 31 Work order # 231163A

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client: Semo Compliance & Remediation

Address: 3349 County Road 484

City / State / Zip: Poplar Bluff, MO 63901

Contact: Matt Marshall Phone: _____

E-Mail: mattmarshall1986@gmail.com Fax: _____

Samples on: ICE BLUE ICE NO ICE _____ °C LTG# _____

Preserved in: LAB FIELD FOR LAB USE ONLY

Lab Notes

Client Comments:

Are these samples known to be involved in litigation? If yes, a surcharge will apply Yes No
Are these samples known to be hazardous? If yes, include details of the hazard. Yes No
Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. Yes No

Project Name/Number Comstar		Sample Collector's Name Matt Marshall		INDICATE ANALYSIS REQUESTED																		
Lab Use Only	Sample Identification	Billing Instructions	Date/Time Sampled	MATRIX																		
				Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW Lead						Received By	Date/Time						
<input checked="checked" type="checkbox"/> Standard				<input checked="checked" type="checkbox"/>																		
<input type="checkbox"/> Other				<input checked="checked" type="checkbox"/>																		
	O11	L-1	11-17-23 8:53am	<input checked="checked" type="checkbox"/>																		
	O12	L-2	11-17-23 8:55am	<input checked="checked" type="checkbox"/>																		
	O13	E-1	11-17-23 8:57pm	<input checked="checked" type="checkbox"/>																		
	O14	E-2	11-17-23 8:49am	<input checked="checked" type="checkbox"/>																		
	O15	F-1	11-17-23 8:43pm	<input checked="checked" type="checkbox"/>																		
	O16	F-2	11-17-23 8:35am	<input checked="checked" type="checkbox"/>																		
	O17	I-1	11-17-23 8:39am	<input checked="checked" type="checkbox"/>																		
Relinquished By Matt Marshall		Date/Time 11-20-23 12:02pm				Received By DMMO (UPS)							Date/Time 11/21/23 1020									

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

BottleOrder: 84328



APPENDIX C

CREDENTIALS

Missouri Department of Natural Resources
Public Drinking Water Program
Certificate of Competency



DS III

WATER DISTRIBUTION LEVEL - III

Matthew R. Marshall

This is to Certify that Matthew R. Marshall having submitted satisfactory evidence of his/her qualifications, knowledge and experience, has been awarded this certificate of competency in drinking water system operations, as provided for in Public Drinking Water Program, Certification of Public Water System Operators Rule 10 CSR 60-14.020, effective August 1, 2001.

CERTIFICATION NUMBER 14310

ORIGINAL ISSUE DATE March 8, 2023

CERTIFICATE EXPIRES March 31, 2026

Issued By [Signature]

[Signature]
Public Drinking Water Branch Chief

RENEWAL STROKER
All training must be completed prior to the expiration date of the certificate. There is no grace period to complete training.