



## **WATER SAMPLING AND REPORTING SERVICES**

**COLUMBIA PUBLIC SCHOOLS  
ROSETA AVENUE LEARNING CENTER  
1100 SOUTH ROSETA AVENUE  
COLUMBIA, MISSOURI**

Prepared for:

**COLUMBIA PUBLIC SCHOOLS  
COLUMBIA, MISSOURI**

Prepared by:

**GEOTECHNOLOGY, LLC, DBA UES  
ST. LOUIS, MISSOURI**

Date:

**DECEMBER 18, 2024**

Project No.:

**J044517.01**

**SAFETY  
TEAMWORK  
RESPONSIVENESS  
INTEGRITY  
VALUE  
EXCELLENCE**



December 18, 2024

Mr. David Seamon  
District Project Manager  
Columbia Public Schools  
1818 West Worley Street  
Columbia, Missouri 65203

Re: Water Sampling and Reporting Services  
Columbia Public Schools  
Roseta Avenue Learning Center  
1100 South Roseta Avenue  
Columbia, Missouri  
Project No. J044517.01

Dear Mr. Seamon:

In accordance with Columbia Public Schools' (CPS) Request for Proposal No. C-24043, dated October 10, 2023, Geotechnology, LLC, dba UES, is pleased to provide this drinking water sampling report for the referenced project. Our scope of services included flushing and sampling of drinking water from potable water outlets, laboratory analysis of water samples, and a letter report.

#### **SITE AND PROJECT DESCRIPTION**

The subject property consists of the existing Roseta Avenue Learning Center, located southeast of the intersection of East Broadway and South Roseta Avenue in Columbia, Missouri. The purpose of the drinking water sampling was to identify potable water outlets that may require remediation in accordance with the State of Missouri's *Get the Lead out of School Drinking Water Act* (RSMo 160.077).

#### **DRINKING WATER SAMPLING**

RSMo 160.077 sets standards for lead concentrations in school drinking water, stating that each Missouri school shall provide drinking water with a lead concentration level below five (5) parts per billion (ppb). This Act requires schools to conduct the inventory, sampling, remediation, and monitoring at all potable drinking water outlets used or potentially used for drinking, food preparation, and cooking or cleaning utensils.

In general conformance with the RSMo 160.077 requirements, and the Environmental Protection Agency's (EPA) *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities* manual, initial water flushing and sampling activities were conducted on December 20 and 21, 2023, by Mr. Brad Lohrum, a Missouri-licensed lead risk assessor. Mr. Lohrum was assisted by Mr. Robert Haefner, a Missouri-licensed lead risk assessor. Copies of training certificates and lead licenses for Messrs. Lohrum and Haefner are included in Appendix A.



An inventory of potable drinking water outlets was provided to UES by CPS. UES personnel sampled the identified outlets utilizing the EPA's "first-draw" methods. The identified outlets were flushed, then allowed to sit undisturbed for a period of 8-18 hours. Following this stagnation period, the first 250 milliliters (ml) of water expelled from the outlets were collected in laboratory-provided containers. Copies of the drinking water sampling forms, which include a list of sample locations, and the times and dates of flushing and sampling activities, are included in Appendix B. A floor plan depicting approximate sample locations is included as Figure 1.

Using standard chain-of-custody procedures, the drinking water samples were submitted to Teklab, Inc. of Collinsville, Illinois, an independent, certified Missouri Department of Natural Resources (MDNR) Drinking Water and National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory, for analysis of lead content via EPA Method 200.8: *Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry*.

## RESULTS

Laboratory analyses detected the presence of lead at or above 5 ppb in the following samples.

**TABLE 1**  
**DRINKING WATER OUTLETS AT OR ABOVE 5 PARTS PER BILLION**

Sample Number / Location and Fixture Type	Results
RAC-06 / Room 8 Sink	35.4 ppb
RAC-07 / Room 8 Bubbler	12.5 ppb
RAC-08 / Room 9T Sink	18.4 ppb
RAC-09 / Room 2 Sink	6.7 ppb
RAC-11 / Room 12RB Left Center Sink	8.4 ppb
RAC-12 / Room 12RB Right Center Sink	19.4 ppb
RAC-13 / Room 12RB Right Sink	7.9 ppb
RAC-14 / Room 12RG Left Sink	26.6 ppb
RAC-15 / Room 12RG Left Center Sink	7.8 ppb
RAC-16 / Room 12RG Right Center Sink	23.8 ppb
RAC-17 / Room 12RG Right Sink	6.5 ppb
RAC-18 / Room 4 Sink	8.5 ppb
RAC-20 / Room 3 Sink	12.2 ppb
RAC-21 / Room 3 Bubbler	15.4 ppb
RAC-23 / Room 5 Bubbler	14.1 ppb
RAC-25 / Room 6 Bubbler	5.3 ppb



UES personnel returned to the site on June 25 and 26, 2024, to resample the sink located within Room 9T (RAC-08-2). Laboratory analysis detected the presence of lead at or above 5 ppb in the following sample.

**TABLE 2**  
**RESAMPLED DRINKING WATER OUTLETS AT OR ABOVE 5 PARTS PER BILLION**

Sample Number / Location and Fixture Type	Results
RAC-08-2 / Room 9T Sink	13.2 ppb

UES personnel returned to the site on September 19, 2024, to resample the sink located within Room 9T (RAC-08-3). Laboratory analysis of the submitted sample did not detect the presence of lead at or above 5 ppb.

UES will not be able to represent that the site contains no lead-bearing water outlets beyond those detected or observed by UES during flushing and sampling activities. Copies of the drinking water analytical results are included in Appendix C.

## RECOMMENDATIONS

Our recommendations are summarized below:

- It is our understanding that the remaining outlets identified in Table 1 that have not been resampled have either been removed, marked as non-potable, or have otherwise been taken out of service. Should these fixtures be put back into service following remediation activities, or if replacement fixtures are to be put into service, further sampling and testing should be conducted.

\* \* \* \* \*

The following attachments are included in and complete this report:

- |            |  |
|------------|--|
| Figure 1   | - Drinking Water Sampling Locations                        |
| Appendix A | - Certificates and Licenses of Environmental Professionals |
| Appendix B | - Drinking Water Sampling Forms                            |
| Appendix C | - Drinking Water Laboratory Data Sheets                    |
| Appendix D | - Limitations of Report                                    |

\* \* \* \* \*



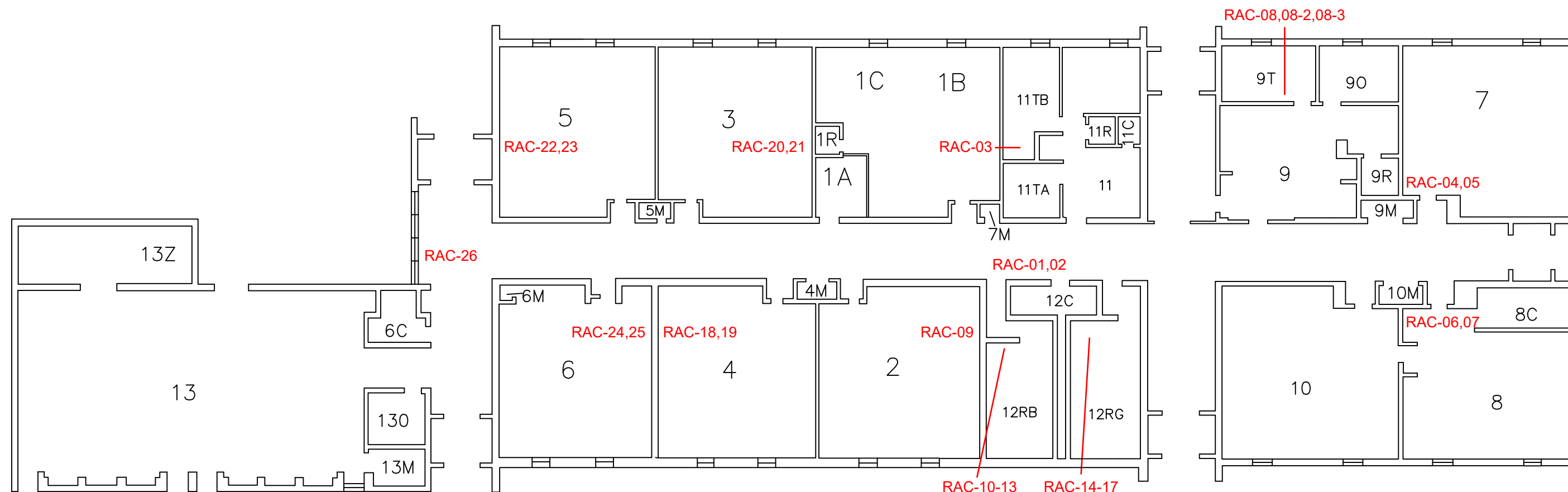
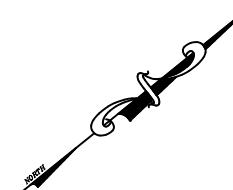
We appreciate the opportunity to provide our professional environmental consulting services to Columbia Public Schools on this project. If you have any questions or comments, please contact me at (314) 997-7440.

Very truly yours,

**UES**


Bradley J. Lohrum  
Project Manager

BJL/MSR:bjl/jsj



#### NOTES

1. Drawing not to scale.
2. Drawing adapted from "Roseta Floor Plan", provided by the client, dated 06/25/2021.
3. Sample locations were identified in the field relative to building features and are approximate only.

Drawn By: BJJ	Ck'd By: BJJ	App'vd By: MSR
Date: 12-19-24	Date: 12-19-24	Date: 12-19-24
		
1100 South Roseta Avenue Columbia, Missouri		
<b>DRINKING WATER SAMPLE LOCATIONS</b>		
Project Number J044517.01	<b>FIGURE 1</b>	



## **APPENDIX A**

### **CERTIFICATES AND LICENSES OF ENVIRONMENTAL PROFESSIONALS**

COLLEGE FOR  
PUBLIC HEALTH & SOCIAL JUSTICE

SAINT LOUIS UNIVERSITY

CENTER FOR ENVIRONMENTAL EDUCATION AND TRAINING

verifies that

**Bradley Lohrum**

817 S Sappington Road, Crestwood, MO 63126

has attended 8 contact hours of training and successfully passed an examination

**Lead Risk Assessor Refresher**

St. Louis, MO

Certificate # CEET 325 - 12/12/2022 - 189152

Examination Date: 12/12/2022

CEUs: 0.8

  
Christopher C. King PhD

Director, Center for Environmental  
Education and Training

Certificate expiration is 3 years from examination date for Illinois Dept. of Public Health

Center for Environmental Education and Training, 3545 Lafayette, St. Louis, MO 63104

(314) 977-8256 [shu.edu/x39753.xml](http://shu.edu/x39753.xml)

This training course has been accredited by the Illinois Department of Public Health, and by the Missouri Department of Health & Senior Services.

***STATE OF MISSOURI***  
***DEPARTMENT OF HEALTH AND SENIOR SERVICES***

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

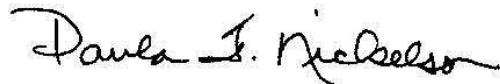
**Bradley J. Lohrum**

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Lead Risk Assessor**

Category of License

Issuance Date: **1/20/2023**  
Expiration Date: **1/20/2025**  
License Number: **230120-300006460**



Paula F. Nickelson  
Acting Director  
Department of Health and Senior Services



# SAINT LOUIS UNIVERSITY

## CENTER FOR ENVIRONMENTAL EDUCATION AND TRAINING

verifies that

**Robert Haefner**

3951 Dover Pl, St. Louis, MO 63116

has attended 8 contact hours of training and successfully passed examination for

### Lead Risk Assessor Refresher

St. Louis, MO

Certificate # CEET 325 3/6/2023 118035  
Examination Date: 3/6/2023  
CEUs: 0.8

Rene Dulle, MBA, Director  
Center for Environmental Education & Training

Center for Environmental Education and Training | 3545 Lafayette Ave., St. Louis, MO 63104  
(314) 977-8256 | [slu.edu/public-health-social-justice/centers-institutes/ceet.php](http://slu.edu/public-health-social-justice/centers-institutes/ceet.php)

The training course has been accredited by the Missouri Dept. of Health and Senior Services, and by the Illinois Dept. of Public Health. Certificate expiration is 3 years from examination date for Illinois Dept. of Public Health.

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

**Robert J. Haefner**

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Lead Risk Assessor**  
**Category of License**

Issuance Date:	<b>3/28/2023</b>
Expiration Date:	<b>3/30/2025</b>
License Number:	<b>150330-300004672</b>

*Paula F. Nickelson*

Paula F. Nickelson  
Acting Director  
Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**Lead Abatement Contractor License**

The person, firm or corporation whose name appears on this certificate is licensed as a Lead Abatement Contractor as set forth in the Missouri Revised Statutes 701.300-701.338 and 19 CSR 30-70.180, as long as not suspended or revoked, and is hereby authorized to engage in lead-bearing substance activities.

Issued to:

**Geotechnology, LLC**

**11816 Lackland Road, Suite 150**  
**St. Louis, MO 63146**

Issuance Date: 2/8/2022  
Expiration Date: 2/8/2024  
License Number: 060208-0095



A handwritten signature in black ink, reading 'Donald G. Kauerauf', is positioned above the printed name.

Donald G. Kauerauf  
Director

Department of Health and Senior Services

***STATE OF MISSOURI***  
***DEPARTMENT OF HEALTH AND SENIOR SERVICES***

**Lead Abatement Contractor License**

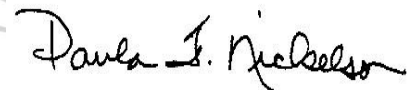
The person, firm or corporation whose name appears on this certificate is licensed as a Lead Abatement Contractor as set forth in the Missouri Revised Statutes 701.300-701.338 and 19 CSR 30-70.180, as long as not suspended or revoked, and is hereby authorized to engage in lead-bearing substance activities.

Issued to:

**Geotechnology LLC (UES)**

**11816 Lackland Rd Suite 150  
St. Louis, MO 63146**

Issuance Date: **2/28/2024**  
Expiration Date: **2/28/2026**  
License Number: **240229-4652**



Paula F. Nickelson  
Director  
Department of Health and Senior Services



## **APPENDIX B**

### **DRINKING WATER SAMPLING FORMS**



# DRINKING WATER SAMPLING FORM

Page 1 of 2

Project Name: Columbia Public Schools Water  
Sampling and Reporting Services  
Building Name: Roseta Avenue Learning Center

Project Number: J044517.01  
Address: 1100 South Roseta Avenue  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
RAC-01	BF	Main Hallway	RJH - 12/20/23 - 18:29	RJH - 12/21/23 - 8:06
RAC-02	WF	Main Hallway	RJH - 12/20/23 - 18:29	RJH - 12/21/23 - 8:06
RAC-03	S	Room 11TB	RJH - 12/20/23 - 18:36	RJH - 12/21/23 - 8:09
RAC-04	S	Room 7	RJH - 12/20/23 - 18:38	RJH - 12/21/23 - 8:15
RAC-05	B	Room 7	RJH - 12/20/23 - 18:38	RJH - 12/21/23 - 8:15
RAC-06	S	Room 8	RJH - 12/20/23 - 18:40	RJH - 12/21/23 - 8:11
RAC-07	B	Room 8	RJH - 12/20/23 - 18:40	RJH - 12/21/23 - 8:11
RAC-08	S	Room 9T	RJH - 12/20/23 - 18:46	RJH - 12/21/23 - 8:17
RAC-09	S	Room 2	RJH - 12/20/23 - 18:50	RJH - 12/21/23 - 8:19
RAC-10	S	Room 12RB - Left	RJH - 12/20/23 - 18:51	RJH - 12/21/23 - 8:20
RAC-11	S	Room 12RB - Left Center	RJH - 12/20/23 - 18:51	RJH - 12/21/23 - 8:20
RAC-12	S	Room 12RB - Right Center	RJH - 12/20/23 - 18:51	RJH - 12/21/23 - 8:21
RAC-13	S	Room 12RB - Right	RJH - 12/20/23 - 18:51	RJH - 12/21/23 - 8:21
RAC-14	S	Room 12RG - Left	RJH - 12/20/23 - 18:52	RJH - 12/21/23 - 8:21
RAC-15	S	Room 12RG - Left Center	RJH - 12/20/23 - 18:52	RJH - 12/21/23 - 8:22
RAC-16	S	Room 12RG - Right Center	RJH - 12/20/23 - 18:52	RJH - 12/21/23 - 8:22
RAC-17	S	Room 12RG - Right	RJH - 12/20/23 - 18:52	RJH - 12/21/23 - 8:22
RAC-18	S	Room 4	RJH - 12/20/23 - 18:56	RJH - 12/21/23 - 8:25
RAC-19	B	Room 4	RJH - 12/20/23 - 18:56	RJH - 12/21/23 - 8:25
RAC-20	S	Room 3	RJH - 12/20/23 - 18:57	RJH - 12/21/23 - 8:30
RAC-21	B	Room 3	RJH - 12/20/23 - 18:57	RJH - 12/21/23 - 8:30
RAC-22	S	Room 5	RJH - 12/20/23 - 19:00	RJH - 12/21/23 - 8:32
RAC-23	B	Room 5	RJH - 12/20/23 - 19:00	RJH - 12/21/23 - 8:32
RAC-24	S	Room 6	RJH - 12/20/23 - 19:01	RJH - 12/21/23 - 8:33
RAC-25	B	Room 6	RJH - 12/20/23 - 19:01	RJH - 12/21/23 - 8:33

BF=Bottle Filling  
B=Bubbler

FW=Filtered Water  
ICE=Ice Machine

S=Classroom/Other Sink  
WF=Water Fountain

Project Name: Columbia Public Schools Water Sampling and Reporting Services  
Building Name: Roseta Avenue Learning Center

Project Number: J044517.01

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Address: 1100 South Roseta Avenue

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Columbia, Missouri

[illegible]

BF=Bottle Filling  
B=Bubbler

FW=Filtered Water  
ICE=Ice Machine

S=Classroom/Other Sink  
WF=Water Fountain



## **APPENDIX C**

### **DRINKING WATER LABORATORY DATA SHEETS**

January 11, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



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

**RE: J044517.01**

**WorkOrder: 23121856**

Dear Brad Lohrum:

TEKLAB, INC received 50 samples on 12/22/2023 4:20:00 PM 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](mailto:patrickriley@teklabinc.com)



## Report Contents

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

**Client:** Geotechnology, Inc.

**Work Order:** 23121856

**Client Project:** J044517.01

**Report Date:** 11-Jan-24

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** Geotechnology, Inc.**Work Order:** 23121856**Client Project:** J044517.01**Report Date:** 11-Jan-24**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:** Geotechnology, Inc.

**Work Order:** 23121856

**Client Project:** J044517.01

**Report Date:** 11-Jan-24

### 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:** Geotechnology, Inc.

**Work Order:** 23121856

**Client Project:** J044517.01

**Report Date:** 11-Jan-24

**Cooler Receipt Temp:** NA °C

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### Locations

---

#### Collinsville

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

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#### Collinsville Air

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

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#### Springfield

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

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#### Chicago

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

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#### Kansas City

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

**Client:** Geotechnology, Inc.**Work Order:** 23121856**Client Project:** J044517.01**Report Date:** 11-Jan-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	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: Geotechnology, Inc.

Work Order: 23121856

Client Project: J044517.01

Report Date: 11-Jan-24

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									
23121856-001A	PES-20	NELAP		1.0	1.5	µg/L	1	01/03/2024 2:55	12/21/2023 9:48
23121856-002A	PES-21	NELAP		1.0	1.3	µg/L	1	01/03/2024 3:00	12/21/2023 9:48
23121856-003A	PES-22	NELAP		1.0	202	µg/L	5	12/29/2023 18:08	12/21/2023 9:50
23121856-004A	PES-23	NELAP		1.0	1.3	µg/L	5	12/29/2023 18:13	12/21/2023 9:52
23121856-005A	PES-24	NELAP		1.0	2.3	µg/L	1	01/03/2024 3:30	12/21/2023 9:53
23121856-006A	PES-25	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:35	12/21/2023 9:53
23121856-007A	PES-26	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:39	12/21/2023 9:54
23121856-008A	PES-27	NELAP		1.0	1.6	µg/L	1	01/03/2024 3:44	12/21/2023 9:55
23121856-009A	PES-28	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:48	12/21/2023 9:56
23121856-010A	PES-29	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:52	12/21/2023 9:57
23121856-011A	PES-30	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:58	12/21/2023 9:57
23121856-012A	PES-31	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:57	12/21/2023 9:58
23121856-013A	PES-32	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:27	12/21/2023 9:59
23121856-014A	PES-33	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:32	12/21/2023 10:00
23121856-015A	PES-34	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 5:24	12/21/2023 10:01
23121856-016A	PES-35	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:36	12/21/2023 10:03
23121856-017A	PES-36	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:40	12/21/2023 10:04
23121856-018A	PES-37	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:45	12/21/2023 10:05
23121856-019A	PES-38	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:49	12/21/2023 10:06
23121856-020A	PES-39	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 4:53	12/21/2023 10:06
23121856-021A	PES-40	NELAP		1.0	< 1.0	µg/L	5	01/02/2024 13:53	12/21/2023 10:07
23121856-022A	PES-41	NELAP		1.0	1.8	µg/L	1	01/05/2024 15:24	12/21/2023 10:08
23121856-023A	PES-42	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 15:28	12/21/2023 10:09
23121856-024A	PES-43	NELAP		1.0	6.3	µg/L	1	01/05/2024 15:31	12/21/2023 10:10
23121856-025A	PES-44	NELAP		1.0	4.9	µg/L	1	01/08/2024 18:07	12/21/2023 10:11
23121856-026A	PES-45	NELAP		1.0	< 1.0	µg/L	1	01/08/2024 18:11	12/21/2023 10:12
23121856-027A	PES-46	NELAP		1.0	18.3	µg/L	1	01/05/2024 15:42	12/21/2023 10:12
23121856-028A	PES-47	NELAP		1.0	5.9	µg/L	1	01/05/2024 15:46	12/21/2023 10:13
23121856-029A	RAC-01	NELAP		1.0	1.5	µg/L	1	01/09/2024 19:11	12/21/2023 8:06
23121856-030A	RAC-02	NELAP		1.0	1.4	µg/L	1	01/08/2024 18:26	12/21/2023 8:06
23121856-031A	RAC-03	NELAP		1.0	1.1	µg/L	1	01/08/2024 18:29	12/21/2023 8:09
23121856-032A	RAC-04	NELAP		1.0	3.2	µg/L	1	01/08/2024 18:33	12/21/2023 8:15
23121856-033A	RAC-05	NELAP		1.0	4.9	µg/L	1	01/08/2024 18:37	12/21/2023 8:15
23121856-034A	RAC-06	NELAP		1.0	35.4	µg/L	1	01/09/2024 19:44	12/21/2023 8:11
23121856-035A	RAC-07	NELAP		1.0	12.5	µg/L	1	01/09/2024 19:48	12/21/2023 8:11
23121856-036A	RAC-08	NELAP		1.0	18.4	µg/L	1	01/09/2024 20:13	12/21/2023 8:17
23121856-037A	RAC-09	NELAP		1.0	6.7	µg/L	1	01/09/2024 19:53	12/21/2023 8:19
23121856-038A	RAC-10	NELAP		1.0	4.2	µg/L	1	01/09/2024 19:57	12/21/2023 8:20
23121856-039A	RAC-11	NELAP		1.0	8.4	µg/L	1	01/09/2024 20:01	12/21/2023 8:20
23121856-040A	RAC-12	NELAP		1.0	19.4	µg/L	1	01/09/2024 20:05	12/21/2023 8:21
23121856-041A	RAC-13	NELAP		1.0	7.9	µg/L	1	01/04/2024 1:00	12/21/2023 8:21
23121856-042A	RAC-14	NELAP		1.0	26.6	µg/L	1	01/04/2024 1:04	12/21/2023 8:21
23121856-043A	RAC-15	NELAP		1.0	7.8	µg/L	1	01/04/2024 1:08	12/21/2023 8:22
23121856-044A	RAC-16	NELAP		1.0	23.8	µg/L	1	01/04/2024 1:13	12/21/2023 8:22
23121856-045A	RAC-17	NELAP		1.0	6.5	µg/L	1	01/04/2024 16:50	12/21/2023 8:22
23121856-046A	RAC-18	NELAP		1.0	8.5	µg/L	1	01/04/2024 1:17	12/21/2023 8:25
23121856-047A	RAC-19	NELAP		1.0	1.7	µg/L	1	01/04/2024 1:21	12/21/2023 8:25
23121856-048A	RAC-20	NELAP		1.0	12.2	µg/L	1	01/04/2024 17:20	12/21/2023 8:30



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 23121856

Client Project: J044517.01

Report Date: 11-Jan-24

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									
23121856-049A	RAC-21	NELAP		1.0	15.4	µg/L	1	01/04/2024 17:25	12/21/2023 8:30
23121856-050A	RAC-22	NELAP		1.0	4.4	µg/L	1	01/04/2024 17:29	12/21/2023 8:32



## Receiving Check List

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

Client: Geotechnology, Inc.

Work Order: 23121856

Client Project: J044517.01

Report Date: 11-Jan-24

Carrier: Brad Lohrum

Received By: PWR

Completed by:

On:

26-Dec-23

Mary E Kemp

Reviewed by:

On:

26-Dec-23

Ellie Hopkins

Pages to follow:

Chain of custody

5

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Temp °C

NA

Type of thermal preservation?

None ☒

Ice ☐

Blue Ice ☐

Dry Ice

☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Reported field parameters measured:

Field ☐

Lab ☐

NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

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 ☐

No ☐

No VOA vials ☒

Water - TOX containers have zero headspace?

Yes ☐

No ☐

No TOX containers ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐

No ☐

NA ☒

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. - MaryKemp - 12/26/2023 9:19:38 AM

pg. 13 of 21 Work order # 23121856

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

<b>Client:</b> <u>Geotechnology, LLC</u>	<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °C LTG# <u>          </u>
<b>Address:</b> <u>11816 Lackland Road</u>	<b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b>
<b>City / State / Zip</b> <u>St. Louis, MO 63146</u>	<b>Lab Notes</b>
<b>Contact:</b> <u>Brad Lohrum</u> <b>Phone:</b> <u>(314) 997-7440</u>	<b>Client Comments:</b>
<b>E-Mail:</b> <u>blohrum@teamues.com</u> <b>Fax:</b> <u>                    </u>	

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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

[illegible]

Relinquished By	Date/Time	Received By	Date/Time
Bredley [Signature]	12/22/23 16:20	[Signature]	12/22/23 16:20

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](http://www.teklabinc.com) for terms and conditions.

BottleOrder: 80481



# CHAIN OF CUSTODY

pg. 14 of 21 Work order # 23121856

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

<b>Client:</b> Geotechnology, LLC <b>Address:</b> 11816 Lackland Road <b>City / State / Zip:</b> St. Louis, MO 63146 <b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440 <b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input checked="" type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE _____ °C LTG# _____ <b>Preserved in:</b> <input checked="" type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes</b>  <b>Client Comments:</b>
--	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No  
 Are these samples known to be hazardous? ☐ 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		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																						
J044517.03		Brad Lohrum		Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8																		
<b>Results Requested</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		<b>Billing Instructions</b>		<b># and Type of Containers</b> UNPRES HNO3 NaOH H2SO4 HCL MeOH NaHSO4 OTHER																								
Lab Use Only	Sample Identification	Date/Time Sampled																										
23121856-011	PES-30	12/21/23 9:57	1																									
012	PES-31	9:58	1																									
013	32	9:59	1																									
014	33	10:00	1																									
015	34	10:01	1																									
016	35	10:03	1																									
017	36	10:04	1																									
018	37	10:05	1																									
019	38	10:06	1																									
020	39	+	1																									

Relinquished By	Date/Time	Received By	Date/Time
Brad Lohrum	12/22/23 16:20	[Signature]	12/22/23 16:20

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](http://www.teklabinc.com) for terms and conditions.

BottleOrder: 80481



pg. 15 of 21      Work order # 23121850

Client:	Geotechnology, LLC		Samples on:	<input type="checkbox"/> ICE	<input type="checkbox"/> BLUE ICE	<input type="checkbox"/> NO ICE	_____ °C	LTG# _____
Address:	11816 Lackland Road		Preserved in:	<input type="checkbox"/> LAB	<input type="checkbox"/> FIELD	<b><u>FOR LAB USE ONLY</u></b>		
City / State / Zip	St. Louis, MO 63146		Lab Notes					
Contact:	Brad Lohrum	Phone:						
E-Mail:	blohrum@teamues.com	Fax:	Client Comments:					

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

[illegible]

pg. 16 of 21 Work order # 23121850

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

<b>Client:</b> <u>Geotechnology, LLC</u> <b>Address:</b> <u>11816 Lackland Road</u> <b>City / State / Zip</b> <u>St. Louis, MO 63146</u> <b>Contact:</b> <u>Brad Lohrum</u> <b>Phone:</b> <u>(314) 997-7440</u> <b>E-Mail:</b> <u>blohrum@teamues.com</u> <b>Fax:</b> _____	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input checked="" type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE _____ °C LTG# _____ <b>Preserved in:</b> <input checked="" type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b> <b>Lab Notes</b>  <b>Client Comments:</b>  Are these samples known to be involved in litigation? If yes, a surcharge will apply <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---

[illegible]

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BottleOrder: 80481



pg. 17 of 21 Work order # 231218560

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

<b>Client:</b> <u>Geotechnology, LLC</u>		<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>        </u> °C <b>LTG#</b> <u>        </u>	
<b>Address:</b> <u>11816 Lackland Road</u>		<b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b>	
<b>City / State / Zip</b> <u>St. Louis, MO 63146</u>		<b>Lab Notes</b>	
<b>Contact:</b> <u>Brad Lohrum</u>	<b>Phone:</b> <u>(314) 997-7440</u>	<b>Client Comments:</b>	
<b>E-Mail:</b> <u>blohrum@teamues.com</u>	<b>Fax:</b> <u>        </u>		

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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

[illegible]

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Bottle Order: 80481



January 09, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



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

**RE: J044517.01**

**WorkOrder: 23121857**

Dear Brad Lohrum:

TEKLAB, INC received 35 samples on 12/22/2023 4:20:00 PM 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](mailto:patrickriley@teklabinc.com)



## Report Contents

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

**Client:** Geotechnology, Inc.

**Work Order:** 23121857

**Client Project:** J044517.01

**Report Date:** 09-Jan-24

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

**Client:** Geotechnology, Inc.

**Work Order:** 23121857

**Client Project:** J044517.01

**Report Date:** 09-Jan-24

### 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:** Geotechnology, Inc.

**Work Order:** 23121857

**Client Project:** J044517.01

**Report Date:** 09-Jan-24

### 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:** Geotechnology, Inc.

**Work Order:** 23121857

**Client Project:** J044517.01

**Report Date:** 09-Jan-24

**Cooler Receipt Temp:** NA °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

**Client:** Geotechnology, Inc.**Work Order:** 23121857**Client Project:** J044517.01**Report Date:** 09-Jan-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	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: Geotechnology, Inc.

Work Order: 23121857

Client Project: J044517.01

Report Date: 09-Jan-24

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									
23121857-001A	RAC-23	NELAP		1.0	14.1	µg/L	1	01/05/2024 9:38	12/21/2023 8:32
23121857-002A	RAC-24	NELAP		1.0	4.6	µg/L	1	01/05/2024 10:07	12/21/2023 8:33
23121857-003A	RAC-25	NELAP		1.0	5.3	µg/L	1	01/05/2024 10:12	12/21/2023 8:33
23121857-004A	RAC-26	NELAP		1.0	2.5	µg/L	1	01/05/2024 10:16	12/21/2023 8:34
23121857-005A	WMS-01	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 10:20	12/22/2023 2:06
23121857-006A	WMS-02	NELAP		1.0	1.5	µg/L	1	01/05/2024 17:07	12/22/2023 2:07
23121857-007A	WMS-03	NELAP		1.0	1.9	µg/L	1	01/05/2024 10:24	12/22/2023 2:08
23121857-008A	WMS-04	NELAP		1.0	1.3	µg/L	1	01/05/2024 10:28	12/22/2023 2:09
23121857-009A	WMS-05	NELAP		1.0	1.3	µg/L	1	01/05/2024 10:33	12/22/2023 2:09
23121857-010A	WMS-06	NELAP		1.0	12.9	µg/L	1	01/05/2024 10:37	12/22/2023 2:11
23121857-011A	WMS-07	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 10:41	12/22/2023 2:13
23121857-012A	WMS-08	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 10:58	12/22/2023 2:13
23121857-013A	WMS-09	NELAP		1.0	1.2	µg/L	1	01/05/2024 11:02	12/22/2023 2:15
23121857-014A	WMS-10	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:06	12/22/2023 2:15
23121857-015A	WMS-11	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:11	12/22/2023 2:17
23121857-016A	WMS-12	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:15	12/22/2023 2:17
23121857-017A	WMS-13	NELAP		5.0	< 5.0	µg/L	10	01/05/2024 15:35	12/22/2023 2:18
23121857-018A	WMS-14	NELAP		5.0	< 5.0	µg/L	10	01/09/2024 8:37	12/22/2023 2:18
23121857-019A	WMS-15	NELAP		1.0	< 1.0	µg/L	1	01/04/2024 19:46	12/22/2023 2:20
23121857-020A	WMS-16	NELAP		1.0	1.1	µg/L	1	01/05/2024 11:19	12/22/2023 2:22
23121857-021A	WMS-17	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:23	12/22/2023 2:23
23121857-022A	WMS-18	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:27	12/22/2023 2:25
23121857-023A	WMS-19	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:32	12/22/2023 2:26
23121857-024A	WMS-20	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 10:21	12/22/2023 2:26
23121857-025A	WMS-21	NELAP		1.0	2.4	µg/L	5	01/02/2024 13:56	12/22/2023 2:30
23121857-026A	WMS-22	NELAP		1.0	4.0	µg/L	5	01/02/2024 14:00	12/22/2023 2:30
23121857-027A	WMS-23	NELAP		1.0	4.3	µg/L	5	01/02/2024 14:04	12/22/2023 2:30
23121857-028A	WMS-24	NELAP		1.0	1.2	µg/L	5	01/02/2024 14:07	12/22/2023 2:30
23121857-029A	WMS-25	NELAP		1.0	4.5	µg/L	5	01/02/2024 14:11	12/22/2023 2:30
23121857-030A	WMS-26	NELAP		2.0	4.2	µg/L	10	01/09/2024 9:03	12/22/2023 2:30
23121857-031A	WMS-27	NELAP		1.0	12.6	µg/L	1	01/03/2024 10:25	12/22/2023 2:34
23121857-032A	WMS-28	NELAP		1.0	1.3	µg/L	1	01/03/2024 10:45	12/22/2023 2:35
23121857-033A	WMS-29	NELAP		1.0	1.4	µg/L	1	01/03/2024 10:29	12/22/2023 2:35
23121857-034A	WMS-30	NELAP		1.0	4.7	µg/L	1	01/03/2024 10:33	12/22/2023 2:39
23121857-035A	WMS-31	NELAP		1.0	3.5	µg/L	1	01/03/2024 10:37	12/22/2023 2:43

Dilution required to meet internal standard recovery criteria.

Dilution required to meet internal standard recovery criteria.



## Receiving Check List

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

Client: Geotechnology, Inc.

Work Order: 23121857

Client Project: J044517.01

Report Date: 09-Jan-24

Carrier: Brad Lohrum

Received By: PWR

Completed by:

On:

26-Dec-23

Mary E Kemp

Reviewed by:

On:

26-Dec-23

Ellie Hopkins

Pages to follow:

Chain of custody

4

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Temp °C

NA

Type of thermal preservation?

None ☒

Ice ☐

Blue Ice ☐

Dry Ice

☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Reported field parameters measured:

Field ☐

Lab ☐

NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

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 ☐

No ☐

No VOA vials ☒

Water - TOX containers have zero headspace?

Yes ☐

No ☐

No TOX containers ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐

No ☐

NA ☒

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. - MaryKemp - 12/26/2023 9:05:48 AM

pg. 18 of 21 Work order # 23121857

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

<b>Client:</b> <u>Geotechnology, LLC</u>		<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °C LTG# <u>          </u>	
<b>Address:</b> <u>11816 Lackland Road</u>		<b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u>	
<b>City / State / Zip</b> <u>St. Louis, MO 63146</u>		<b>Lab Notes</b>	
<b>Contact:</b> <u>Brad Lohrum</u>	<b>Phone:</b> <u>(314) 997-7440</u>	<b>Client Comments:</b>	
<b>E-Mail:</b> <u>blohrum@teamues.com</u>	<b>Fax:</b> <u>                                </u>		

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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

[illegible]

Relinquished By	Date/Time	Received By	Date/Time
<i>Bradley J. [Signature]</i>	12/22/23 16:20	<i>[Signature]</i>	12/22/23 16:20

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](http://www.teklabinc.com) for terms and conditions.

BottleOrder: 80481



pg. 19 of 21      Work order # 23121857

<b>Client:</b> <u>Geotechnology, LLC</u> <b>Address:</b> <u>11816 Lackland Road</u> <b>City / State / Zip</b> <u>St. Louis, MO 63146</u> <b>Contact:</b> <u>Brad Lohrum</u> <b>Phone:</b> <u>(314) 997-7440</u> <b>E-Mail:</b> <u>blohrum@teamues.com</u> <b>Fax:</b> _____	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input checked="" type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE _____ °C LTG# _____ <b>Preserved in:</b> <input checked="" type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b> <b>Lab Notes</b>  <b>Client Comments:</b>
---	--

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

[illegible]

Relinquished By	Date/Time	Received By	Date/Time
<i>Brian [Signature]</i>	12/22/23 16:20	<i>[Signature]</i>	12/22/23 1620



pg. 20 of 2 | Work order # 23121857

<b>Client:</b> Geotechnology, LLC	<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C LTG# _____
<b>Address:</b> 11816 Lackland Road	<b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b>
<b>City / State / Zip</b> St. Louis, MO 63146	<b>Lab Notes</b>
<b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440	<b>Client Comments:</b>
<b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

[illegible]

Relinquished By	Date/Time	Received By	Date/Time
Bradley J. [Signature]	12/22/23 16:20	[Signature] MS	12/22/23 16:20



pg. 21 of 21 Work order # 23121851

<b>Client:</b>	Geotechnology, LLC		
<b>Address:</b>	11816 Lackland Road		
<b>City / State / Zip</b>	St. Louis, MO 63146		
<b>Contact:</b>	Brad Lohrum	<b>Phone:</b>	(314) 997-7440
<b>E-Mail:</b>	blohrum@teamues.com	<b>Fax:</b>	

## Lab Notes

**Client Comments:**

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

[illegible]

July 11, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE: J044517.01**

**WorkOrder: 24062353**

Dear Brad Lohrum:

TEKLAB, INC received 57 samples on 6/28/2024 3:50:00 PM 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](mailto:patrickriley@teklabinc.com)



## Report Contents

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

**Client:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** Geotechnology, Inc.**Work Order:** 24062353**Client Project:** J044517.01**Report Date:** 11-Jul-24**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:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

### 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:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

**Cooler Receipt Temp:** NA °C

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### Locations

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#### Collinsville

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

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#### Collinsville Air

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

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#### Springfield

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

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#### Chicago

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

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#### Kansas City

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

**Client:** Geotechnology, Inc.**Work Order:** 24062353**Client Project:** J044517.01**Report Date:** 11-Jul-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

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									
24062353-001A	SMS-01-2	NELAP		1.0	4.6	µg/L	1	07/03/2024 17:08	06/26/2024 15:07
24062353-002A	SMS-02-2	NELAP		1.0	3.5	µg/L	1	07/03/2024 17:23	06/26/2024 15:08
24062353-003A	SMS-58-2	NELAP		1.0	7.5	µg/L	1	07/03/2024 17:26	06/26/2024 15:11
24062353-004A	SMS-59-2	NELAP		1.0	3.3	µg/L	1	07/03/2024 17:30	06/26/2024 15:12
24062353-005A	SMS-60-2	NELAP		1.0	8.7	µg/L	1	07/03/2024 17:34	06/26/2024 15:13
24062353-006A	SMS-61-2	NELAP		1.0	6.9	µg/L	1	07/03/2024 17:37	06/26/2024 15:14
24062353-007A	SMS-62-2	NELAP		1.0	7.4	µg/L	1	07/08/2024 22:34	06/26/2024 15:15
24062353-008A	SMS-74-2	NELAP		1.0	1.9	µg/L	1	07/03/2024 17:52	06/26/2024 15:18
24062353-009A	PKE-66-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 17:56	06/26/2024 15:52
24062353-010A	PKE-67-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:10	06/26/2024 15:52
24062353-011A	PKE-70-2	NELAP		1.0	2.2	µg/L	1	07/03/2024 18:14	06/26/2024 15:55
24062353-012A	RBE-08-2	NELAP		1.0	1.3	µg/L	1	07/03/2024 18:18	06/26/2024 16:06
24062353-013A	RBE-11-2	NELAP		1.0	1.6	µg/L	1	07/03/2024 18:21	06/26/2024 16:07
24062353-014A	FES-52-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:25	06/26/2024 16:16
24062353-015A	BRH-82	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:29	06/26/2024 16:33
24062353-016A	BRH-83	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:33	06/26/2024 16:36
24062353-017A	MCE-09-2	NELAP		1.0	1.3	µg/L	1	07/08/2024 22:45	06/26/2024 16:51
24062353-018A	MCE-87	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:58	06/26/2024 16:54
24062353-019A	MCE-88	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:02	06/26/2024 16:54
24062353-020A	RBH-30-2	NELAP		1.0	12.4	µg/L	1	07/03/2024 19:05	06/26/2024 17:17
24062353-021A	RBH-103	NELAP		1.0	1.9	µg/L	1	07/03/2024 19:09	06/26/2024 17:21
24062353-022A	RBH-104	NELAP		1.0	3.6	µg/L	1	07/03/2024 19:13	06/26/2024 17:21
24062353-023A	RBH-105	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:16	06/26/2024 17:22
24062353-024A	RBH-106	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:20	06/26/2024 17:22
24062353-025A	NHE-10-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:24	06/26/2024 17:44
24062353-026A	NHE-16-2	NELAP		1.0	3.7	µg/L	1	07/03/2024 19:28	06/26/2024 17:46
24062353-027A	CRE-70	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:13	06/26/2024 18:01
24062353-028A	CRE-71	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:53	06/26/2024 18:03
24062353-029A	RAC-08-2	NELAP		1.0	13.2	µg/L	1	07/03/2024 19:57	06/26/2024 18:20
24062353-030A	SBE-02-2	NELAP		1.0	4.6	µg/L	1	07/03/2024 20:01	06/26/2024 18:35
24062353-031A	LSE-06-2	NELAP		1.0	2.1	µg/L	1	07/03/2024 20:04	06/26/2024 18:54
24062353-032A	JMS-11-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:08	06/26/2024 19:07
24062353-033A	EF5-01-2	NELAP		1.0	6.4	µg/L	1	07/03/2024 20:12	06/26/2024 19:19
24062353-034A	HHS-18-2	NELAP		1.0	2.7	µg/L	1	07/03/2024 20:15	06/26/2024 19:32
24062353-035A	OMS-08-2	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:35	06/26/2024 19:55
24062353-036A	OMS-10-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:41	06/26/2024 19:56
24062353-037A	OMS-12-2	NELAP		1.0	1.1	µg/L	1	07/03/2024 20:45	06/26/2024 19:57
24062353-038A	OMS-17-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:48	06/26/2024 20:00
24062353-039A	OMS-20-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:52	06/26/2024 20:07
24062353-040A	OMS-39	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:56	06/26/2024 20:10
24062353-041A	OMS-40	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:59	06/26/2024 20:10
24062353-042A	OMS-23-2	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:46	06/26/2024 20:11
24062353-043A	OMS-24-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 21:25	06/26/2024 20:11
24062353-044A	OMS-29-2	NELAP		1.0	5.6	µg/L	1	07/03/2024 21:29	06/26/2024 20:13
24062353-045A	EBE-35-3	NELAP		1.0	17.7	µg/L	1	07/03/2024 21:32	06/26/2024 20:39
24062353-046A	EBE-63	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 21:36	06/26/2024 20:43
24062353-047A	BHS-83-2	NELAP		1.0	17.6	µg/L	1	07/08/2024 23:07	06/26/2024 21:10
24062353-048A	BHS-122-2	NELAP		1.0	4.3	µg/L	1	07/03/2024 21:51	06/26/2024 21:20



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

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									
24062353-049A	BHS-125-2	NELAP		1.0	8.8	µg/L	1	07/03/2024 21:54	06/26/2024 21:20
24062353-050A	BHS-126-2	NELAP		1.0	5.9	µg/L	1	07/03/2024 22:09	06/26/2024 21:20
24062353-051A	BHS-130-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:13	06/26/2024 21:26
24062353-052A	BHS-222	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:16	06/26/2024 21:30
24062353-053A	BHS-223	NELAP		1.0	1.1	µg/L	1	07/03/2024 22:20	06/26/2024 21:30
24062353-054A	BHS-224	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:24	06/26/2024 21:30
24062353-055A	BHS-225	NELAP		1.0	1.3	µg/L	1	07/03/2024 22:27	06/26/2024 21:30
24062353-056A	BHS-226	NELAP		1.0	3.0	µg/L	1	07/03/2024 22:31	06/26/2024 21:15
24062353-057A	BHS-227	NELAP		1.0	2.8	µg/L	1	07/03/2024 22:35	06/26/2024 21:15



## Receiving Check List

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

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

Carrier: Craig McKinney

Received By: NR

Completed by:

Reviewed by:

On:

On:

28-Jun-24

28-Jun-24

Paul Schultz

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 <b>NA</b>
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. - pschultz - 6/28/2024 4:49:24 PM

# CHAIN OF CUSTODY

pg. 1 of 6 Work order # 24062359

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

<b>Client:</b> Geotechnology, LLC <b>Address:</b> 11816 Lackland Road <b>City / State / Zip:</b> St. Louis, MO 63146 <b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440 <b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <input type="checkbox"/> °C LTG# <b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes</b> <b>Client Comments:</b>
--	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No  
 Are these samples known to be hazardous? ☐ 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

**TEKLAB  
Courier**

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																													
J044517.01		Brad Lohrum																																	
Results Requested		Billing Instructions	# and Type of Containers								Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8																		
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)			UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER																									
Lab Use Only	Sample Identification	Date/Time Sampled																																	
24062359-001	SMS-01-2	6/26/24 3:07	1															X	X																
-002	02-2	3:08	1															X	X																
-003	58-2	3:11	1															X	X																
-004	59-2	3:12	1															X	X																
-005	60-2	3:13	1															X	X																
-006	61-2	3:14	1															X	X																
-007	62-2	3:15	1															X	X																
-008	74-2	3:18	1															X	X																
-009	PKE-66-2	3:52	1															X	X																
-010	PKE-67-2	3:52	1															X	X																

Relinquished By	Date/Time	Received By	Date/Time
<i>Brad Lohrum</i>	6/27/24 17:30	<i>Mike Reed</i>	6/28/24 1400
	6/28/24 1550		6/28/24 1550

pg. 2 of 6 Work order # 2406253

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

<b>Client:</b> <u>Geotechnology, LLC</u> <b>Address:</b> <u>11816 Lackland Road</u> <b>City / State / Zip</b> <u>St. Louis, MO 63146</u> <b>Contact:</b> <u>Brad Lohrum</u> <b>Phone:</b> <u>(314) 997-7440</u> <b>E-Mail:</b> <u>blohrum@teamues.com</u> <b>Fax:</b> _____	<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE    _____ °C    LTG# _____ <b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u><b>FOR LAB USE ONLY</b></u> <b>Lab Notes</b>  <b>Client Comments:</b> _____   
---	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																			
J044517.01		Brad Lohrum		Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8															
Results Requested		Billing Instructions																						# and Type of Containers	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)				UNRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER														
Lab Use Only	Sample Identification	Date/Time Sampled																							
0406353-011	PKE-70-2	6/26/24	3:55	1																					
-012	RBE-08-2	1	4:06	1																					
-013	RBE-11-2		4:07	1																					
-014	FES-52-2		4:16	1																					
-015	BRH-82		4:33	1																					
-016	BRH-83		4:36	1																					
-017	MCE-09-2		4:51	1																					
-018	MCE-87		4:54	1																					
-019	MCE-88		+	1																					
-020	RBH-30-2	+	5:17	1																					
Relinquished By		Date/Time		Received By		Date/Time																			
Brad Lohrum		6/27/24 17:30		Nikh Reed		6/28/24 1400																			
		6/28/24 1350				1550																			

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](http://www.teklabinc.com) for terms and conditions.

Bottle Order: 80481



# CHAIN OF CUSTODY

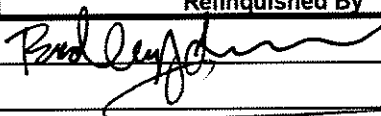
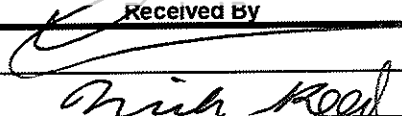
pg. 3 of 6 Work order # 24062353

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

<b>Client:</b> Geotechnology, LLC <b>Address:</b> 11816 Lackland Road <b>City / State / Zip:</b> St. Louis, MO 63146 <b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440 <b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C LTG# _____ <b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes</b> <b>Client Comments:</b>
--	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No  
 Are these samples known to be hazardous? ☐ 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		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																														
J044517.01		Brad Lohrum																																		
Results Requested		Billing Instructions	# and Type of Containers										Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8																	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)			UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER																										
Lab Use Only	Sample Identification	Date/Time Sampled																																		
24062353-021	RBH-103	6/26/24 5:21	1															X			X															
-022	104	+	1															X			X															
-023	105	5:22	1															X			X															
-024	106	+	1															X			X															
-025	NHE-10-2	5:44	1															X			X															
-026	NHE-16-2	5:46	1															X			X															
-027	CRE-70	6:01	1															X			X															
-028	CRE-71	6:03	1															X			X															
-029	RAC-08-2	6:20	1															X			X															
-030	SBE-02-2	6:35	1															X			X															

Relinquished By	Date/Time	Received By	Date/Time
	6/27/24 17:30		6/28/24 12:00
	6/28/24 1550		6/28/24 1550

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](http://www.teklabinc.com) for terms and conditions.

Bottle Order: 80481



pg. 4 of 6 Work order # 24062353

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

<b>Client:</b>	Geotechnology, LLC		<b>Samples on:</b>	<input type="checkbox"/> ICE	<input type="checkbox"/> BLUE ICE	<input type="checkbox"/> NO ICE	_____ °C	<b>LTG#</b> _____
<b>Address:</b>	11816 Lackland Road		<b>Preserved in:</b>	<input type="checkbox"/> LAB	<input type="checkbox"/> FIELD	<b><u>FOR LAB USE ONLY</u></b>		
<b>City / State / Zip</b>	St. Louis, MO 63146		<b>Lab Notes</b>					
<b>Contact:</b>	Brad Lohrum	<b>Phone:</b>	(314) 997-7440					
<b>E-Mail:</b>	blohrum@teamues.com	<b>Fax:</b>						
			<b>Client Comments:</b>					

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																	
J044517.01		Brad Lohrum		Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8													
Results Requested		Billing Instructions																					# and Type of Containers
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)				UNRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER												
Lab Use Only	Sample Identification	Date/Time Sampled																					
J044517-031	LSE-06-2	6/26/24	6:54	1																			
-032	JMS-11-2	7:07	1																				
-033	EFS-01-2	7:19	1																				
-034	HHS-18-2	7:32	1																				
-035	OMS-08-2	7:55	1																				
-036	OMS-10-2	7:56	1																				
-037	12-2	7:57	1																				
-038	17-2	8:00	1																				
-039	20-2	8:07	1																				
-040	39	8:10	1																				



Relinquished By	Date/Time	Received By	Date/Time
Brad Lohrum	6/27/24 17:30	Trish Reed	6/28/24 1400
	6/28/24 1550		



pg. 5 of 6 Work order # 24062353

<b>Client:</b>	Geotechnology, LLC		<b>Samples on:</b>	<input type="checkbox"/> ICE	<input type="checkbox"/> BLUE ICE	<input type="checkbox"/> NO ICE	_____ °C	<b>LTG#</b>	_____
<b>Address:</b>	11816 Lackland Road		<b>Preserved in:</b>	<input type="checkbox"/> LAB	<input type="checkbox"/> FIELD	<b><u>FOR LAB USE ONLY</u></b>			
<b>City / State / Zip</b>	St. Louis, MO 63146		<b>Lab Notes</b>						
<b>Contact:</b>	Brad Lohrum	<b>Phone:</b>	(314) 997-7440						
<b>E-Mail:</b>	blohrum@teamues.com	<b>Fax:</b>							
			<b>Client Comments:</b>						

[illegible]

Relinquished By	Date/Time	Received By	Date/Time
	6/27/24 17:30		6/28/24 1400
	6/28/24 1538	Rick Reed	6/28/24 1550

pg. 6 of 6

Work order # 2466 2353

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

<b>Client:</b> <u>Geotechnology, LLC</u>		<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>        </u> °C LTG# <u>        </u>	
<b>Address:</b> <u>11816 Lackland Road</u>		<b>Preserved in:</b> <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u>	
<b>City / State / Zip</b> <u>St. Louis, MO 63146</u>		<b>Lab Notes</b>	
<b>Contact:</b> <u>Brad Lohrum</u>	<b>Phone:</b> <u>(314) 997-7440</u>		
<b>E-Mail:</b> <u>blohrum@teamues.com</u>	<b>Fax:</b> <u>                    </u>	<b>Client Comments:</b>	

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? ☐ 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

[illegible]

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](http://www.teklabinc.com) for terms and conditions.

Bottle Order: 80481



September 30, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE: J044517.01**

**WorkOrder: 24091622**

Dear Brad Lohrum:

TEKLAB, INC received 7 samples on 9/20/2024 1:13:00 PM 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](mailto:patrickriley@teklabinc.com)



## Report Contents

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

**Client:** Geotechnology, Inc.

**Work Order:** 24091622

**Client Project:** J044517.01

**Report Date:** 30-Sep-24

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

**Client:** Geotechnology, Inc.

**Work Order:** 24091622

**Client Project:** J044517.01

**Report Date:** 30-Sep-24

### 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:** Geotechnology, Inc.

**Work Order:** 24091622

**Client Project:** J044517.01

**Report Date:** 30-Sep-24

### 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:** Geotechnology, Inc.

**Work Order:** 24091622

**Client Project:** J044517.01

**Report Date:** 30-Sep-24

**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

**Client:** Geotechnology, Inc.**Work Order:** 24091622**Client Project:** J044517.01**Report Date:** 30-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 24091622

Client Project: J044517.01

Report Date: 30-Sep-24

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									
24091622-001A	SMS-58-3	NELAP		1.0	13.5	µg/L	1	09/26/2024 12:20	09/19/2024 5:37
24091622-002A	SMS-60-3	NELAP		1.0	12.8	µg/L	1	09/26/2024 12:24	09/19/2024 5:39
24091622-003A	SMS-61-3	NELAP		1.0	2.7	µg/L	1	09/26/2024 12:28	09/19/2024 5:39
24091622-004A	SMS-62-3	NELAP		1.0	3.7	µg/L	1	09/26/2024 12:57	09/19/2024 5:40
24091622-005A	OMS-29-3	NELAP		1.0	15.8	µg/L	1	09/26/2024 12:32	09/19/2024 6:00
24091622-006A	EFS-01-3	NELAP		1.0	1.9	µg/L	1	09/26/2024 13:01	09/19/2024 6:13
24091622-007A	RAC-08-3	NELAP		1.0	< 1.0	µg/L	1	09/26/2024 13:05	09/19/2024 6:27

**Client:** Geotechnology, Inc.

**Work Order:** 24091622

**Client Project:** J044517.01

**Report Date:** 30-Sep-24

**Carrier:** John Duarte

**Received By:** NR

**Completed by:**
**On:**

20-Sep-24

Amber Dilallo

**Reviewed by:**
**On:**

20-Sep-24

Ellie Hopkins

**Pages to follow:**

Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

 Yes ☒

 No ☐

 Not Present ☐

Temp °C

N/A

Type of thermal preservation?

 None ☒

 Ice ☐

 Blue Ice ☐

Dry Ice

☐

Chain of custody present?

 Yes ☒

 No ☐

Chain of custody signed when relinquished and received?

 Yes ☒

 No ☐

Chain of custody agrees with sample labels?

 Yes ☒

 No ☐

Samples in proper container/bottle?

 Yes ☒

 No ☐

Sample containers intact?

 Yes ☒

 No ☐

Sufficient sample volume for indicated test?

 Yes ☒

 No ☐

All samples received within holding time?

 Yes ☒

 No ☐

Reported field parameters measured:

 Field ☐

 Lab ☐

 NA ☒

Container/Temp Blank temperature in compliance?

 Yes ☒

 No ☐

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 ☐

 No ☐

 No VOA vials ☒

Water - TOX containers have zero headspace?

 Yes ☐

 No ☐

 No TOX containers ☒

Water - pH acceptable upon receipt?

 Yes ☒

 No ☐

 NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

 Yes ☐

 No ☐

 NA ☒
**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 - 9/20/2024 1:42:56 PM

Work order # 24091622

<b>Client:</b> <u>Geotechnology, LLC, dba UES</u> <b>Address:</b> <u>11816 Lackland Road</u> <b>City / State / Zip</b> <u>St. Louis, MO 63146</u> <b>Contact:</b> <u>Brad Lohrum</u> <b>Phone:</b> <u>(314) 997-7440</u> <b>E-Mail:</b> <u>blohrum@teamues.com</u> <b>Fax:</b> _____	<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>U/A</u> °C LTG# _____ <b>Preserved in:</b> <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <b><u>FOR LAB USE ONLY</u></b> <b>Lab Notes</b>  <b>Client Comments:</b>
--	--

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

[illegible]

9/20



## **APPENDIX D**

### **LIMITATIONS OF REPORT**

## **ENVIRONMENTAL SAMPLING LIMITATIONS OF REPORT**

1. The Report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in documenting specific sample results. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of UES.
2. The sampling was performed in accordance with generally accepted practices of other consultants undertaking similar projects at the same time and in the same geographical area, and UES endeavored to observe that degree of care and skill ordinarily exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the project. UES does not and cannot represent that the site contains no hazardous waste or material, or other latent condition beyond that observed by UES.
3. In the event that information is developed relative to environmental or hazardous waste or material issues at the site and not contained in this report, such information shall be brought to UES' attention. UES will evaluate such information and, based on this evaluation, may modify the conclusions stated in this Report.
4. The conclusions and recommendations contained in this Report are based in part upon the data obtained from a limited number of water samples. The identified presence of contaminated water is limited to the extent that they could be identified by instrumentation and sampling and testing. There is a potential for contaminated water above the indicated concentrations to occur elsewhere on the site. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, and/or if changes are made in regulations, it will be necessary to reevaluate the conclusions and recommendations of this report.
5. If quantitative laboratory testing was performed as part of the assessment by an outside laboratory, UES has relied upon the data provided, and has not conducted an independent evaluation of the reliability to these data.
6. Chemical analyses have been performed for specific parameters during the course of this sampling as described in the text. Do not assume that a given analyte is not present at the site simply because it was not present at the test locations. The analyte may exist on the site where tests were not performed. In addition, it should be noted that additional chemical constituents not tested for during the sampling could be present in water at the site.