



## **WATER SAMPLING AND REPORTING SERVICES**

**COLUMBIA PUBLIC SCHOOLS  
PARKADE ELEMENTARY SCHOOL  
111 PARKADE BOULEVARD  
COLUMBIA, MISSOURI**

Prepared for:

**COLUMBIA PUBLIC SCHOOLS  
COLUMBIA, MISSOURI**

Prepared by:

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

Date:

**SEPTEMBER 18, 2024**

Project No.:

**J044517.01**

**SAFETY  
TEAMWORK  
RESPONSIVENESS  
INTEGRITY  
VALUE  
EXCELLENCE**



September 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  
Parkade Elementary School  
111 Parkade Boulevard  
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 Columbia Public Schools Parkade Elementary School, located northwest of the intersection of North Garth Avenue and Parkade Boulevard 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
PES-22 / Kitchen Ice Machine	202 ppb
PES-43 / Room 113 Sink	6.3 ppb
PES-46 / Room 116 Sink	18.3 ppb
PES-47 / Room 115 Sink	5.9 ppb

Sample PES-22 was collected from the water outlet feeding the ice machine within the Kitchen. UES personnel returned to the site on February 8, 2024, to collect an ice sample (PES-22-2) from within the machine for laboratory analysis. The result of the ice sample analysis was below 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 Sample 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                                    |

\* \* \* \* \*

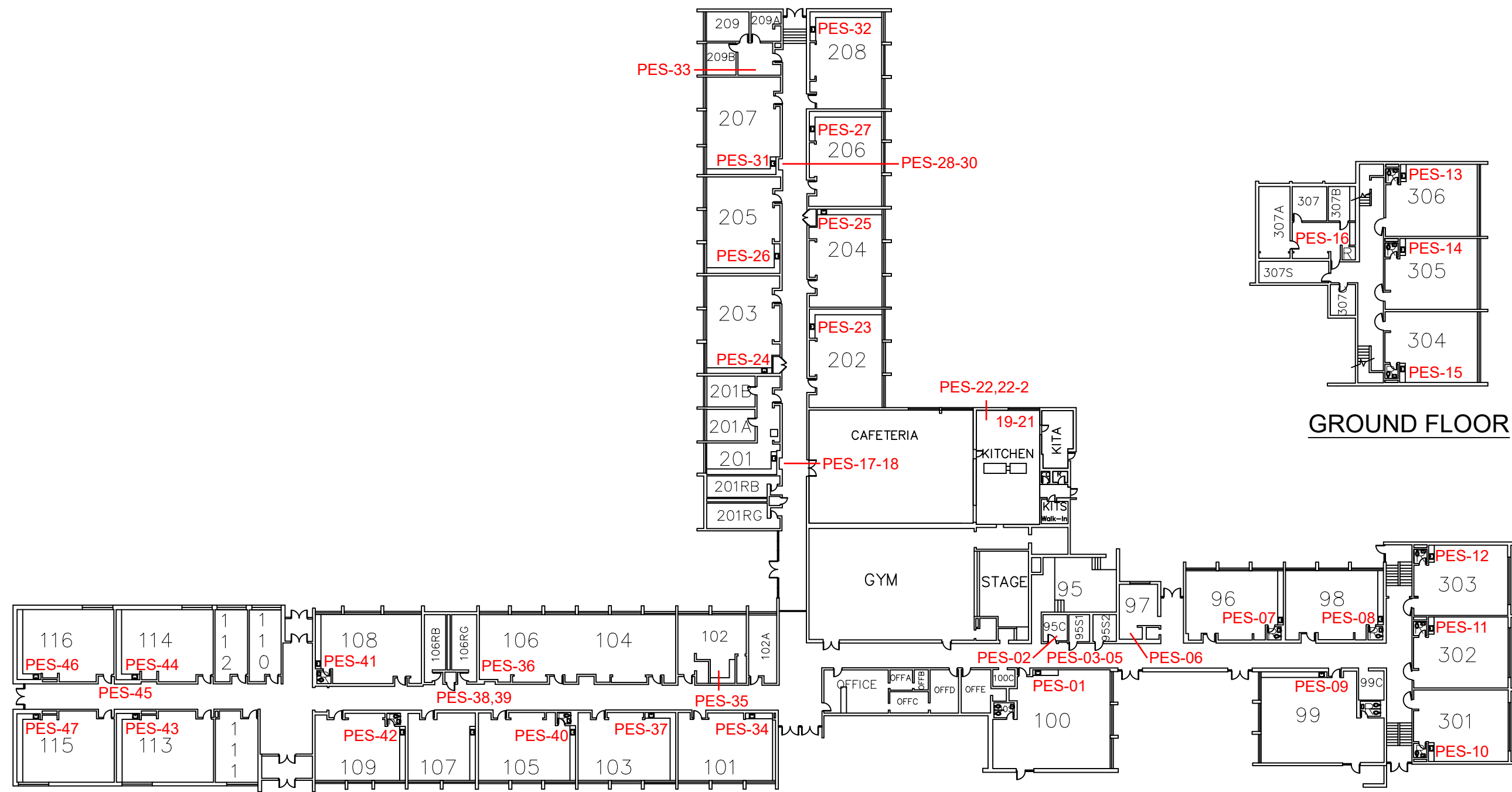
We appreciate the opportunity to provide our professional environmental consulting services to Columbia Public Schools on this project. If you have any questions or comments, please contact me at (314) 997-7440.

Very truly yours,

**UES**

Bradley J. Lohrum  
Project Manager


BJL/MSR:bjl/jsj



FIRST FLOOR

GROUND FLOOR

- NOTES
- 1. Drawing not to scale.
  - 2. Drawing adapted from "Parkade Elementary Floor Plan", provided by the client, dated 08/13/2018.
  - 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: 9-18-24	Date: 9-18-24	Date: 9-18-24
		
111 Parkade Boulevard Columbia, Missouri		
DRINKING WATER SAMPLE LOCATIONS		
Project Number J044517.01	FIGURE 1	



## **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*

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*

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

COLLEGE FOR  
**PUBLIC HEALTH & SOCIAL JUSTICE**  
SAINT LOUIS UNIVERSITY

CENTER FOR ENVIRONMENTAL EDUCATION AND TRAINING

verifies that

**Seth Lamble**

12040 Chaparral Drive, Bridgeton, Missouri 63044

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

**Lead Inspector Refresher**

St. Louis, MO

Certificate # CEET 315 - 1/4/2022 - 118633

Examination Date: 1/4/2022

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 [slu.edu/x39753.xml](http://slu.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:

**Seth P. Lamble**

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 Inspector**  
Category of License

Issuance Date: **4/25/2022**  
Expiration Date: **4/25/2024**  
License Number: **160425-300004897**



*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".

Donald G. Kauerauf  
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: Parkade Elementary School

Project Number: J044517.01  
Address: 111 Parkade Boulevard  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
PES-01	S	Room 100	RJH - 12/20/23 - 20:42	RJH - 12/21/23 - 9:31
PES-02	S	Room 95C	RJH - 12/20/23 - 20:45	RJH - 12/21/23 - 9:32
PES-03	WF	Hallway at 95C - Left	RJH - 12/20/23 - 20:45	RJH - 12/21/23 - 9:33
PES-04	BF	Hallway at 95C - Right	RJH - 12/20/23 - 20:45	RJH - 12/21/23 - 9:33
PES-05	WF	Hallway at 95C - Right	RJH - 12/20/23 - 20:45	RJH - 12/21/23 - 9:33
PES-06	S	Room 97	RJH - 12/20/23 - 20:47	RJH - 12/21/23 - 9:35
PES-07	S	Room 96	RJH - 12/20/23 - 20:49	RJH - 12/21/23 - 9:36
PES-08	S	Room 98	RJH - 12/20/23 - 20:51	RJH - 12/21/23 - 9:37
PES-09	S	Room 99	RJH - 12/20/23 - 20:51	RJH - 12/21/23 - 9:37
PES-10	S	Room 301	RJH - 12/20/23 - 20:52	RJH - 12/21/23 - 9:38
PES-11	S	Room 302	RJH - 12/20/23 - 20:54	RJH - 12/21/23 - 9:39
PES-12	S	Room 303	RJH - 12/20/23 - 20:55	RJH - 12/21/23 - 9:40
PES-13	S	Room 306	RJH - 12/20/23 - 20:56	RJH - 12/21/23 - 9:41
PES-14	S	Room 305	RJH - 12/20/23 - 20:58	RJH - 12/21/23 - 9:42
PES-15	S	Room 304	RJH - 12/20/23 - 21:00	RJH - 12/21/23 - 9:42
PES-16	S	Room 307	RJH - 12/20/23 - 21:04	RJH - 12/21/23 - 9:43
PES-17	WF	Hallway at Cafeteria - Left	RJH - 12/20/23 - 21:08	RJH - 12/21/23 - 9:45
PES-18	BF	Hallway at Cafeteria - Right	RJH - 12/20/23 - 21:08	RJH - 12/21/23 - 9:45
PES-19	S	Kitchen - Left	RJH - 12/20/23 - 21:11	RJH - 12/21/23 - 9:48
PES-20	S	Kitchen - Center	RJH - 12/20/23 - 21:11	RJH - 12/21/23 - 9:48
PES-21	S	Kitchen - Right	RJH - 12/20/23 - 21:11	RJH - 12/21/23 - 9:48
PES-22	ICE	Kitchen - Ice Machine	RJH - 12/20/23 - 21:11	BJL - 12/21/23 - 9:50
PES-23	S	Room 202	RJH - 12/20/23 - 21:14	BJL - 12/21/23 - 9:52
PES-24	S	Room 203	RJH - 12/20/23 - 21:16	BJL - 12/21/23 - 9:53
PES-25	S	Room 204	RJH - 12/20/23 - 21:17	BJL - 12/21/23 - 9:53

BF=Bottle Filling  
B=Bubbler

FW=Filtered Water  
ICE=Ice Machine

S=Classroom/Other Sink  
WF=Water Fountain

**DRINKING WATER SAMPLING FORM**

Page 2 of 2

Project Name: Columbia Public Schools Water  
Sampling and Reporting Services  
Building Name: Parkade Elementary School

Project Number: J044517.01  
Address: 111 Parkade Boulevard  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
PES-26	S	Room 205	RJH - 12/20/23 - 21:19	RJH - 12/21/23 - 9:54
PES-27	S	Room 206	RJH - 12/20/23 - 21:20	RJH - 12/21/23 - 9:55
PES-28	WF	Hallway at Room 205 - Left	RJH - 12/20/23 - 21:22	RJH - 12/21/23 - 9:56
PES-29	BF	Hallway at Room 205 - Right	RJH - 12/20/23 - 21:22	RJH - 12/21/23 - 9:56
PES-30	WF	Hallway at Room 205 - Right	RJH - 12/20/23 - 21:22	RJH - 12/21/23 - 9:57
PES-31	S	Room 207	RJH - 12/20/23 - 21:24	RJH - 12/21/23 - 9:58
PES-32	S	Room 208	RJH - 12/20/23 - 21:25	RJH - 12/21/23 - 9:59
PES-33	S	Room 209	RJH - 12/20/23 - 21:28	RJH - 12/21/23 - 10:00
PES-34	S	Room 101	RJH - 12/20/23 - 21:30	RJH - 12/21/23 - 10:01
PES-35	S	Room 102	RJH - 12/20/23 - 21:33	RJH - 12/21/23 - 10:03
PES-36	S	Room 106	RJH - 12/20/23 - 21:36	RJH - 12/21/23 - 10:04
PES-37	S	Room 103	RJH - 12/20/23 - 21:38	RJH - 12/21/23 - 10:05
PES-38	BF	Hallway at Room 105	RJH - 12/20/23 - 21:39	RJH - 12/21/23 - 10:06
PES-39	WF	Hallway at Room 105	RJH - 12/20/23 - 21:39	RJH - 12/21/23 - 10:06
PES-40	S	Room 105	RJH - 12/20/23 - 21:40	RJH - 12/21/23 - 10:07
PES-41	S	Room 108	RJH - 12/20/23 - 21:43	RJH - 12/21/23 - 10:08
PES-42	S	Room 109	RJH - 12/20/23 - 21:44	RJH - 12/21/23 - 10:09
PES-43	S	Room 113	RJH - 12/20/23 - 21:46	RJH - 12/21/23 - 10:10
PES-44	S	Room 114	RJH - 12/20/23 - 21:48	RJH - 12/21/23 - 10:11
PES-45	WF	Hallway at Room 114 - Right	RJH - 12/20/23 - 21:49	RJH - 12/21/23 - 10:12
PES-46	S	Room 116	RJH - 12/20/23 - 21:51	RJH - 12/21/23 - 10:12
PES-47	S	Room 115	RJH - 12/20/23 - 21:52	RJH - 12/21/23 - 10:13
PES-22-2	ICE	Kitchen - Ice Machine	N/A	SPL - 2/8/24 - 3:46

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: 23121855**

Dear Brad Lohrum:

TEKLAB, INC received 60 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:** 23121855

**Client Project:** J044517.01

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

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
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Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

**Client:** Geotechnology, Inc.**Work Order:** 23121855**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:** 23121855

**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:** 23121855

**Client Project:** J044517.01

**Report Date:** 11-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:** 23121855**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: 23121855

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									
23121855-001A	MHE-01	NELAP		1.0	< 1.0	µg/L	1	01/09/2024 21:40	12/22/2023 1:21
23121855-002A	MHE-02	NELAP		1.0	< 1.0	µg/L	1	01/09/2024 21:44	12/22/2023 1:21
23121855-003A	MHE-03	NELAP		1.0	< 1.0	µg/L	1	01/09/2024 21:48	12/22/2023 1:23
23121855-004A	MHE-04	NELAP		1.0	1.9	µg/L	1	01/05/2024 14:00	12/22/2023 1:26
23121855-005A	MHE-05	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 14:03	12/22/2023 1:27
23121855-006A	MHE-06	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 14:07	12/22/2023 1:29
23121855-007A	MHE-07	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 14:11	12/22/2023 1:29
23121855-008A	MHE-08	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 14:14	12/22/2023 1:29
23121855-009A	MHE-09	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:12	12/22/2023 1:32
23121855-010A	MHE-10	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:16	12/22/2023 1:32
23121855-011A	MHE-11	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:21	12/22/2023 1:34
23121855-012A	MHE-12	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:25	12/22/2023 1:34
23121855-013A	MHE-13	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:30	12/22/2023 1:36
23121855-014A	MHE-14	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:34	12/22/2023 1:36
23121855-015A	MHE-15	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 20:38	12/22/2023 1:36
23121855-016A	NHE-01	NELAP		1.0	3.2	µg/L	1	01/05/2024 10:33	12/21/2023 22:52
23121855-017A	NHE-02	NELAP		1.0	2.7	µg/L	1	01/05/2024 10:38	12/21/2023 22:53
23121855-018A	NHE-03	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 10:42	12/21/2023 22:53
23121855-019A	NHE-04	NELAP		1.0	2.1	µg/L	1	01/05/2024 10:46	12/21/2023 22:55
23121855-020A	NHE-05	NELAP		1.0	1.5	µg/L	1	01/05/2024 10:51	12/21/2023 22:57
23121855-021A	NHE-06	NELAP		1.0	2.4	µg/L	1	01/05/2024 10:55	12/21/2023 22:58
23121855-022A	NHE-07	NELAP		1.0	2.2	µg/L	1	01/05/2024 11:25	12/21/2023 22:58
23121855-023A	NHE-08	NELAP		1.0	1.7	µg/L	1	01/05/2024 11:29	12/21/2023 23:00
23121855-024A	NHE-09	NELAP		1.0	1.1	µg/L	1	01/05/2024 10:59	12/21/2023 23:01
23121855-025A	NHE-10	NELAP		1.0	6.8	µg/L	1	01/05/2024 11:34	12/21/2023 23:03
23121855-026A	NHE-11	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:38	12/21/2023 23:04
23121855-027A	NHE-12	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 11:42	12/21/2023 23:05
23121855-028A	NHE-13	NELAP		1.0	2.1	µg/L	1	01/05/2024 11:47	12/21/2023 23:07
23121855-029A	NHE-14	NELAP		1.0	2.3	µg/L	1	01/05/2024 11:51	12/21/2023 23:07
23121855-030A	NHE-15	NELAP		1.0	< 1.0	µg/L	1	01/04/2024 17:33	12/21/2023 23:09
23121855-031A	NHE-16	NELAP		1.0	5.4	µg/L	1	01/04/2024 17:38	12/21/2023 23:11
23121855-032A	NHE-17	NELAP		1.0	< 1.0	µg/L	1	01/04/2024 17:42	12/21/2023 23:12
23121855-033A	NHE-18	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 9:33	12/21/2023 23:13
23121855-034A	NHE-19	NELAP		1.0	< 1.0	µg/L	1	01/03/2024 3:04	12/21/2023 23:18
23121855-035A	NHE-20	NELAP		1.0	1.3	µg/L	1	01/03/2024 2:34	12/21/2023 23:15
23121855-036A	NHE-21	NELAP		1.0	7.0	µg/L	1	01/03/2024 2:38	12/21/2023 23:22
23121855-037A	NHE-22	NELAP		1.0	7.6	µg/L	1	01/04/2024 17:46	12/21/2023 23:22
23121855-038A	NHE-23	NELAP		1.0	4.0	µg/L	1	01/03/2024 2:42	12/21/2023 23:27
23121855-039A	NHE-24	NELAP		1.0	1.2	µg/L	1	01/03/2024 2:47	12/21/2023 23:27
23121855-040A	NHE-25	NELAP		1.0	3.1	µg/L	1	01/03/2024 2:51	12/21/2023 23:28
23121855-041A	NHE-26	NELAP		1.0	1.6	µg/L	1	01/05/2024 12:09	12/21/2023 23:28
23121855-042A	PES-01	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:13	12/21/2023 9:31
23121855-043A	PES-02	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:17	12/21/2023 9:32
23121855-044A	PES-03	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:20	12/21/2023 9:33
23121855-045A	PES-04	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:24	12/21/2023 9:33
23121855-046A	PES-05	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:28	12/21/2023 9:33
23121855-047A	PES-06	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:31	12/21/2023 9:35
23121855-048A	PES-07	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:35	12/21/2023 9:36





## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 23121855

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									
23121855-049A	PES-08	NELAP		1.0	1.4	µg/L	1	01/05/2024 12:39	12/21/2023 9:37
23121855-050A	PES-09	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 12:53	12/21/2023 9:37
23121855-051A	PES-10	NELAP		1.0	2.1	µg/L	1	01/05/2024 12:57	12/21/2023 9:38
23121855-052A	PES-11	NELAP		1.0	2.9	µg/L	1	01/05/2024 13:01	12/21/2023 9:39
23121855-053A	PES-12	NELAP		1.0	1.8	µg/L	1	01/05/2024 13:12	12/21/2023 9:40
23121855-054A	PES-13	NELAP		1.0	1.9	µg/L	1	01/05/2024 13:16	12/21/2023 9:41
23121855-055A	PES-14	NELAP		1.0	1.5	µg/L	1	01/05/2024 13:19	12/21/2023 9:42
23121855-056A	PES-15	NELAP		1.0	1.5	µg/L	1	01/05/2024 13:23	12/21/2023 9:42
23121855-057A	PES-16	NELAP		1.0	2.5	µg/L	1	01/05/2024 13:27	12/21/2023 9:43
23121855-058A	PES-17	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 13:41	12/21/2023 9:45
23121855-059A	PES-18	NELAP		1.0	< 1.0	µg/L	1	01/05/2024 13:52	12/21/2023 9:45
23121855-060A	PES-19	NELAP		1.0	3.7	µg/L	1	01/05/2024 13:56	12/21/2023 9:48



## Receiving Check List

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

Client: Geotechnology, Inc.

Work Order: 23121855

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

6

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 8:57:18 AM

# CHAIN OF CUSTODY

pg. 11 of 21 Work order # 23121855

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

<b>Client:</b> Geotechnology, Inc. <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@geotechnology.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? If yes, include details of the hazard. ☐ Yes ☒ No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. ☐ Yes ☒ No

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED											
J044517.01		Brad Lohrum															
Results Requested		Billing Instructions		# and Type of Containers		Drinking Water		Soil		Sludge		Groundwater		Special Waste		DW Lead	
<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															
23121855-041	NHE-26	12/21/23 23:28	1														
042	PES-01	12/21/23 9:31	1														
043	PES-02	9:32	1														
044	03	9:33	1														
045	04		1														
046	05	+	1														
047	06	9:35	1														
048	07	9:36	1														
049	08	9:37	1														
050	09	+	1														

Relinquished By		Date/Time	Received By		Date/Time
Brad Lohrum		12/22/23 10:20	[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: 85679



pg. 12 of 21      Work order # 23121855

<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 type="checkbox"/> ICE	<input type="checkbox"/> BLUE ICE	<input type="checkbox"/> NO ICE	_____ °C	<b>LTG#</b> _____
<b>Preserved in:</b>	<input 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]

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

### 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:** 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> Geotechnology, LLC	<b>Samples on:</b> <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °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 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
Breda [Signature]	12/22/23 16:20	Pato [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. 14 of 21 Work order # 23121854

**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 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>Client Comments:</b>
<b>E-Mail:</b> blohrum@teamues.com	
<b>Phone:</b> (314) 997-7440	
<b>Fax:</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.

BottleOrder: 80481



pg. 15 of 21      Work order # 23121850

<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 type="checkbox"/> ICE	<input type="checkbox"/> BLUE ICE	<input type="checkbox"/> NO ICE	_____ °C	<b>LTG#</b> _____
<b>Preserved in:</b>	<input 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]

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





March 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: 24020828**

Dear Brad Lohrum:

TEKLAB, INC received 50 samples on 2/12/2024 11:20:00 AM for the analysis presented in the following report.

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

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

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

Sincerely,



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



## Report Contents

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

**Client:** Geotechnology, Inc.

**Work Order:** 24020828

**Client Project:** J044517.01

**Report Date:** 11-Mar-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:** 24020828

**Client Project:** J044517.01

**Report Date:** 11-Mar-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:** 24020828

**Client Project:** J044517.01

**Report Date:** 11-Mar-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:** 24020828

**Client Project:** J044517.01

**Report Date:** 11-Mar-24

**Cooler Receipt Temp:** N/A °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:** 24020828**Client Project:** J044517.01**Report Date:** 11-Mar-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		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 24020828

Client Project: J044517.01

Report Date: 11-Mar-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									
24020828-001A	PES-22-2	NELAP		1.0	< 1.0	µg/L	1	03/06/2024 19:00	02/08/2024 3:46
24020828-002A	DHS-26-2	NELAP		1.0	< 1.0	µg/L	1	03/06/2024 19:04	02/08/2024 3:58
24020828-003A	FES-01	NELAP		1.0	2.9	µg/L	1	03/07/2024 16:50	02/08/2024 4:18
24020828-004A	FES-02	NELAP		1.0	< 1.0	µg/L	5	03/04/2024 9:21	02/08/2024 4:20
24020828-005A	FES-03	NELAP		1.0	1.9	µg/L	1	03/07/2024 16:54	02/08/2024 4:20
24020828-006A	FES-04	NELAP		1.0	10.2	µg/L	5	03/04/2024 9:08	02/08/2024 4:21
24020828-007A	FES-05	NELAP		1.0	1.4	µg/L	1	03/07/2024 16:57	02/08/2024 4:21
24020828-008A	FES-06	NELAP		1.0	3.8	µg/L	5	03/04/2024 9:12	02/08/2024 4:22
24020828-009A	FES-07	NELAP		1.0	3.3	µg/L	1	03/07/2024 17:01	02/08/2024 4:22
24020828-010A	FES-08	NELAP		1.0	2.8	µg/L	1	03/07/2024 17:05	02/08/2024 4:22
24020828-011A	FES-09	NELAP		1.0	1.1	µg/L	1	03/07/2024 17:27	02/08/2024 4:22
24020828-012A	FES-10	NELAP		1.0	< 1.0	µg/L	1	03/07/2024 17:30	02/08/2024 4:26
24020828-013A	FES-11	NELAP		1.0	1.3	µg/L	1	03/07/2024 17:34	02/08/2024 4:26
24020828-014A	FES-12	NELAP		1.0	< 1.0	µg/L	1	03/07/2024 17:38	02/08/2024 4:26
24020828-015A	FES-13	NELAP		1.0	< 1.0	µg/L	1	03/07/2024 17:41	02/08/2024 4:28
24020828-016A	FES-14	NELAP		1.0	2.0	µg/L	1	03/07/2024 17:45	02/08/2024 4:28
24020828-017A	FES-15	NELAP		1.0	1.1	µg/L	1	03/07/2024 17:49	02/08/2024 4:28
24020828-018A	FES-16	NELAP		1.0	2.1	µg/L	1	03/07/2024 17:52	02/08/2024 4:28
24020828-019A	FES-17	NELAP		1.0	< 1.0	µg/L	1	03/07/2024 17:56	02/08/2024 4:28
24020828-020A	FES-18	NELAP		1.0	7.3	µg/L	1	03/07/2024 18:11	02/08/2024 4:30
24020828-021A	FES-19	NELAP		1.0	1.3	µg/L	1	03/07/2024 18:22	02/08/2024 4:30
24020828-022A	FES-20	NELAP		1.0	2.1	µg/L	1	03/07/2024 18:25	02/08/2024 4:31
24020828-023A	FES-21	NELAP		1.0	9.7	µg/L	1	03/08/2024 14:07	02/08/2024 4:33
24020828-024A	FES-22	NELAP		1.0	1.4	µg/L	5	03/04/2024 9:17	02/08/2024 4:33
24020828-025A	FES-23	NELAP		1.0	11.5	µg/L	1	03/08/2024 14:10	02/08/2024 4:35
24020828-026A	FES-24	NELAP		1.0	11.9	µg/L	1	03/08/2024 14:14	02/08/2024 4:35
24020828-027A	FES-25	NELAP		1.0	3.1	µg/L	1	03/08/2024 14:18	02/08/2024 4:36
24020828-028A	FES-26	NELAP		1.0	2.9	µg/L	1	03/08/2024 14:21	02/08/2024 4:36
24020828-029A	FES-27	NELAP		1.0	2.3	µg/L	1	03/08/2024 14:32	02/08/2024 4:37
24020828-030A	FES-28	NELAP		1.0	1.1	µg/L	1	03/08/2024 14:36	02/08/2024 4:37
24020828-031A	FES-29	NELAP		1.0	< 1.0	µg/L	1	03/08/2024 14:40	02/08/2024 4:39
24020828-032A	FES-30	NELAP		1.0	2.3	µg/L	1	03/08/2024 14:54	02/08/2024 4:39
24020828-033A	FES-31	NELAP		1.0	2.9	µg/L	1	03/08/2024 14:58	02/08/2024 4:40
24020828-034A	FES-32	NELAP		1.0	5.5	µg/L	1	03/08/2024 15:02	02/08/2024 4:40
24020828-035A	FES-33	NELAP		1.0	4.0	µg/L	5	03/04/2024 12:06	02/08/2024 4:42
24020828-036A	FES-34	NELAP		1.0	2.7	µg/L	5	03/04/2024 12:11	02/08/2024 4:42
24020828-037A	FES-35	NELAP		1.0	< 1.0	µg/L	1	03/08/2024 15:13	02/08/2024 4:43
24020828-038A	FES-36	NELAP		1.0	16.8	µg/L	5	03/04/2024 12:15	02/08/2024 4:45
24020828-039A	FES-37	NELAP		1.0	19.1	µg/L	5	03/04/2024 12:19	02/08/2024 4:45
24020828-040A	FES-38	NELAP		1.0	4.9	µg/L	5	03/04/2024 12:24	02/08/2024 4:46
24020828-041A	FES-39	NELAP		1.0	6.0	µg/L	1	03/08/2024 15:16	02/08/2024 4:46
24020828-042A	FES-40	NELAP		1.0	8.8	µg/L	5	03/04/2024 12:28	02/08/2024 4:46
24020828-043A	FES-41	NELAP		1.0	3.2	µg/L	1	03/07/2024 9:51	02/08/2024 4:48
24020828-044A	FES-42	NELAP		1.0	4.4	µg/L	1	03/07/2024 9:54	02/08/2024 4:48
24020828-045A	FES-43	NELAP		1.0	3.4	µg/L	5	03/04/2024 12:32	02/08/2024 4:49
24020828-046A	FES-44	NELAP		1.0	2.8	µg/L	1	03/07/2024 9:58	02/08/2024 4:49
24020828-047A	FES-45	NELAP		1.0	1.2	µg/L	1	03/07/2024 10:02	02/08/2024 4:50
24020828-048A	FES-46	NELAP		1.0	4.1	µg/L	1	03/07/2024 10:05	02/08/2024 4:54



## Laboratory Results

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

Client: Geotechnology, Inc.

Work Order: 24020828

Client Project: J044517.01

Report Date: 11-Mar-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									
24020828-049A	FES-47	NELAP		1.0	1.7	µg/L	1	03/07/2024 10:16	02/08/2024 4:54
24020828-050A	FES-48	NELAP		1.0	4.6	µg/L	1	03/07/2024 10:31	02/08/2024 4:55



**Client:** Geotechnology, Inc.

**Work Order:** 24020828

**Client Project:** J044517.01

**Report Date:** 11-Mar-24

**Carrier:** Craig McKinney

**Received By:** AMD

**Completed by:**

**On:**

12-Feb-24

Amber Dilallo

**Reviewed by:**

**On:**

12-Feb-24

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 **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 - 2/12/2024 3:14:22 PM

# CHAIN OF CUSTODY

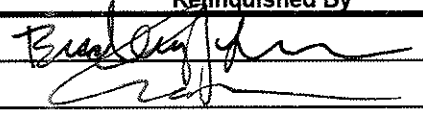
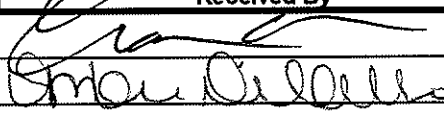
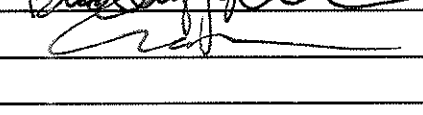
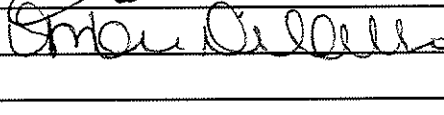
pg. 1 of 23 Work order # 24020828

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 type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °C <b>LTG#</b> _____ <b>Preserved in:</b> <input checked="" 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										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)				UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER															
Lab Use Only	Sample Identification		Date/Time Sampled																							
24020828	PES-22-2		2/8/24 3:46		1								X			X										
002	DHS-26-2		2/8/24 3:58		1								X			X										
003	FES-01		4:18		1								X			X										
004	FES-02		4:20		1								X			X										
005	03		+		1								X			X										
006	04		4:21		1								X			X										
007	05		+		1								X			X										
008	06		4:22		1								X			X										
009	07		+		1								X			X										
010	08		+		1								X			X										

Relinquished By	Date/Time	Received By	Date/Time
	2/12/24 1015		2/12/24 1015
	2/12/24 1120		2/12/24 1120

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





## **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.