

November 28, 2017

Anna Willis
Cook County School District 104
6021 S 74th Ave
Summit, IL 60501
TEL: (708) 728-3113
FAX:



RE: Drinking Water Testing - Graves

WorkOrder: 17111268

Dear Anna Willis:

TEKLAB, INC received 6 samples on 11/20/2017 9:20:00 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,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

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

Client: Cook County School District 104

Work Order: 17111268

Client Project: Drinking Water Testing - Graves

Report Date: 28-Nov-17

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Client: Cook County School District 104

Work Order: 17111268

Client Project: Drinking Water Testing - Graves

Report Date: 28-Nov-17

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- 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 dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- 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, spiked with verified known amounts of analytes, is 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. The acceptable recovery range is in the QC Package (provided upon request).
- 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 Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
- 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
- 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. The acceptable recovery range is listed in the QC Package (provided upon request).
- 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)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| I - Associated internal standard was outside method criteria | 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 | |

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves

Work Order: 17111268
Report Date: 28-Nov-17

Cooler Receipt Temp: NA °C

All samples were collected in 250mL containers.

Date & Time of Last Use: 11/17/17 8:00pm.

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: Cook County School District 104

Work Order: 17111268

Client Project: Drinking Water Testing - Graves

Report Date: 28-Nov-17

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2018	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2018	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2018	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2018	Collinsville
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2018	Collinsville
Arkansas	ADEQ	88-0966		3/14/2018	Collinsville
Illinois	IDPH	17584		5/31/2019	Collinsville
Indiana	ISDH	C-IL-06		1/31/2018	Collinsville
Kentucky	KDEP	98006		12/31/2017	Collinsville
Kentucky	UST	0073		1/31/2018	Collinsville
Louisiana	LDPH	LA170027		12/31/2017	Collinsville
Missouri	MDNR	930		1/31/2018	Collinsville
Missouri	MDNR	00930		5/31/2017	Collinsville
Oklahoma	ODEQ	9978		8/31/2018	Collinsville
Tennessee	TDEC	04905		1/31/2018	Collinsville



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-001
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: A. WF by Rm 22
Collection Date: 11/18/2017 7:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		< 1.0	µg/L	1	11/28/2017 12:09	136585



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-002
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: B. WF by Rm 22
Collection Date: 11/18/2017 7:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		< 1.0	µg/L	1	11/28/2017 10:35	136585



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-003
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: A. WF by Nurses
Collection Date: 11/18/2017 7:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		< 1.0	µg/L	1	11/28/2017 10:40	136585



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-004
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: B. WF by Nurses
Collection Date: 11/18/2017 7:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		< 1.0	µg/L	1	11/28/2017 10:46	136585



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-005
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: A. Principal Sink
Collection Date: 11/18/2017 7:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		1.7	µg/L	1	11/28/2017 10:51	136585



Laboratory Results

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

Client: Cook County School District 104
Client Project: Drinking Water Testing - Graves
Lab ID: 17111268-006
Matrix: DRINKING WATER

Work Order: 17111268
Report Date: 28-Nov-17
Client Sample ID: B. Principal Sink
Collection Date: 11/18/2017 7:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)								
Lead	NELAP	1.0		< 1.0	µg/L	1	11/28/2017 10:57	136585



Receiving Check List

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

Client: Cook County School District 104

Work Order: 17111268

Client Project: Drinking Water Testing - Graves

Report Date: 28-Nov-17

Carrier: FedEx

Received By: KF

Completed by:

Kalyn Foecke

Reviewed by:

Elizabeth A. Hurley

On:

21-Nov-17

Kalyn Foecke

On:

21-Nov-17

Elizabeth A. Hurley

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 NA |
| 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 received at the Downers Grove office. AR 11/20/17

Samples were received at the Collinsville lab on 11/21/17 at 09:43. KF/EAH 11/21/17

Samples were checked for turbidity then preserved with nitric acid upon arrival at the laboratory.

CHAIN OF CUSTODY

pg. 1 of 1

Work order # Graves

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

Client: <u>Cook County School District 104</u>		Samples on: <input checked="" type="checkbox"/> ICE <input checked="" type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °C	
Address: <u>6021 S 74th Ave</u>		Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD FOR LAB USE ONLY	
City / State / Zip: <u>Summit, IL 60501</u>		Lab Notes	
Contact: <u>Anna Willis</u>	Phone: <u>(708) 728-3113</u>		
E-Mail: <u>awillis@sd104.us</u>	Fax: _____		

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

Are these samples known to be hazardous? 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

Client Comments:
 Collected in 250mL containers.
 Date & Time of Last Use: 11/17/17 8:00pm

Project Name/Number <small>Drinking Water Testing</small>		Sample Collector's Name <i>Jesus Hernandez</i>		MATRIX				INDICATE ANALYSIS REQUESTED																															
Results Requested <input type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)			Billing Instructions		# and Type of Containers				Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	Lead																								
Lab Use Only	Sample Identification	Date/Time Sampled	UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH																						NaHSO4	OTHER								
1711268-001	A-WF by 22	11-18-17 7:24	1								X			X																									
-002	B-WF by 22	11-18-17 7:27	1								X			X																									
-003	A-WF by nurses	11-18-17 7:30	1								X			X																									
-004	B-WF by nurses	11-18-17 7:31	1								X			X																									
-005	A Principal smk	11-18-17 7:33	1								X			X																									
-006	B Principal smk	11-18-17 7:34	1								X			X																									
Relinquished By <i>Anna Willis</i>			Date/Time <i>11/20/17 9:20</i>				Received By <i>David Montes</i>				Date/Time <i>11/20/17 9:20 AM</i>																												
							<i>Feder</i> Fed Ex				<i>11/21/17 9:43</i>																												

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